

ISSN : 2580-3220
E-ISSN : 2580-4588

Jurnal MANDIRITM

ILMU PENGETAHUAN, SENI, DAN TEKNOLOGI

www.jurnalmandiri.com

Vol. 6, No. 2, Desember 2022



J. Mandiri.

Vol. 6

No. 2

Hal. 59 - 148

Tangerang Selatan,
Desember 2022

ISSN : 2580-3220
E-ISSN : 2580-4588

Editor's Introduction

Assalamu'alaikum Wr. Wb.

All praise and gratitude we pray to Allah SWT because of His blessings, mercy, taufiq, and guidance, Jurnal MANDIRI: Ilmu Pengetahuan, Seni, dan Teknologi, can be published again. Twelfth edition, Vol. 6, No. 2, December 2022, of course it is very proud and happy for us as managers.

Alhamdulillah, based on the Decree of the Director General of Strengthening Research and Development of the Ministry of Research, Technology and Higher Education of the Republic of Indonesia, Number 36/E/Kpt/2019 concerning the Scientific Journal Accreditation Ranking Period VII of 2019 as of December 13, 2019, starting from Vol. 3, No. 1, June 2019, Jurnal MANDIRI Accreditation rose to SINTA 4 rank.

As for the coverage in the Jurnal MANDIRI: Ilmu Pengetahuan, Seni, dan Teknologi, these are ideas or ideas as well as the results of studies and scientific works both originating from research and community service with the aim of advancing science, art, and technology. In addition, the existence of this journal is expected to be a means for improving the competence of lecturers and also as an alternative for the general public in publishing their work.

We realize, in this twelfth publication, there are still many shortcomings. For this reason, we welcome criticism and suggestions for improvement in the next edition. Criticisms and suggestions can be sent to the editorial address of Jurnal MANDIRI.

In closing, we invite Mr/Mrs/Mr. to be able to fill out this journal.

Thanks and happy reading.

Wassalamu'alaikum Wr. Wb.

Editor



Published twice a year in June and December.

Contains writings adopted from the results of research, studies, and scientific works as well as community service in various fields of science, art, and technology.

Chief of Editor

Syamruddin (ID Scopus: 57245744900) - (ID Scholar: _nrNbvKAAAAJ) - (ID Orcid: 0000-0002-8711-5788) - (ID Publon: 4727903),
Universitas Pamulang, Banten, Indonesia

Editors

Mahirah Kamaludin (ID Scopus: 56102066600), Universiti Malaysia Terengganu, Malaysia
Retno Purwani Setyaningrum (ID Scopus: 57195427700) - (ID Scholar: qeG41DUAAAAJ), Universitas Pelita Bangsa, Bekasi, Jawa Barat,
Indonesia
Zackharia Rialmi (ID Scopus: 57219945452) - (ID Scholar: WP97Y9IAAAAAJ), Universitas Pembangunan Nasional Veteran, Jakarta,
Indonesia
Iman Lubis (ID Scholar: s0SsY-MAAAAJ), Universitas Pamulang, Banten, Indonesia
Okie Iqbal Khair (ID Scholar: uikOE2MAAAAAJ), Universitas Pamulang, Banten, Indonesia
Hamdi Mahmud (ID Scholar: dConDzcAAAAJ), Sekolah Tinggi Ilmu Ekonomi YPN, Karawang, Jawa Barat, Indonesia
Nova Arestia (ID Scholar: 3pgG6_0AAAAJ), Universitas Widya Dharma Pontianak, Kalimantan Barat, Indonesia
Angga Juanda (ID Scholar: A3OR1clAAAAJ), Universitas Pamulang, Banten, Indonesia
Arif Zunaidi (ID Scholar: qsVcikMAAAAAJ), Institut Agama Islam Negeri (IAIN) Kediri, Jawa Tengah, Indonesia
Solehuddin Harahap (ID Scholar: 5gkijyEAAAAJ), STAIN Mandailing Natal, Sumatera Utara, Indonesia
Ahmad Yani Nasution (ID Scholar: JgOOzEUAAAAJ), Universitas Pamulang, Banten, Indonesia
Agus Suparno (ID Scholar: RxjYs38AAAAJ), Sekolah Tinggi Ilmu Komputer Yos Sudarso, Purwokerto, Jawa Tengah, Indonesia
Achmad Nur Sholeh (ID Scholar: yOBROFwAAAAJ), Universitas Pamulang, Banten, Indonesia
Irwansyah (ID SINTA: 6658440), Universitas Pamulang, Banten, Indonesia

Reviewers

Yusliza Mohd Yusoff (ID Scopus: 57191439114), Universiti Malaysia Terengganu, Malaysia
Zikri Muhammad (ID Scopus: 57212080462), Universiti Malaysia Terengganu, Malaysia
Jumadil Saputra (ID Scopus: 57195569546) - (ID Scholar: dMU2OfoAAAAJ), Universiti Malaysia Terengganu, Malaysia
I Gusti Ayu Ketut Giantari (ID Scopus: 56716327400) - (ID Scholar: bEa2tg4AAAAJ), Universitas Udayana, Denpasar, Bali, Indonesia
Hamdy Hady (ID Scopus: 57196287877) - (ID Scholar: Lxkk0AQAAAAJ), Universitas Persada Indonesia YAI, Jakarta, Indonesia
Umi Rusilowati (ID Scopus: 57191376785) - (ID Scholar: b06hVdUAAAAJ), Universitas Pamulang, Banten, Indonesia
Asep Kamaluddin Nashir (ID Scopus: 57205607634) - (ID Scholar: NQvAJ4sAAAAJ), Universitas Pembangunan Nasional Veteran, Jakarta,
Indonesia
Syahril Yoserizal (ID Scopus: 57191379178), STIE Pengembangan Bisnis Manajemen, Jakarta, Indonesia
Ali Zaenal Abidin (ID Scopus: 57203998345) - (ID Scholar: _D0_5E4AAAAJ), Universitas Pamulang, Banten, Indonesia
Pitri Yandri (ID Scopus: 57195837764) - (ID Scholar: 5Gg94OIAAAAAJ), Institut Teknologi dan Bisnis Ahmad Dahlan, Jakarta, Indonesia
Andryan Setyadharma (ID Scopus: 57211883495) - (ID Scholar: i8iXh9wAAAAJ), Universitas Negeri Semarang, Jawa Tengah, Indonesia
Fatlina Zainuddin (ID Scopus: 57197823363) (ID Scholar: UGDqQeIAAAAAJ), Universitas Tadulako Palu, Sulawesi Tengah, Indonesia
Encep Saepudin (ID Scholar: YDeGfYQAAAAJ), Universitas Muhammadiyah Purwokerto, Jawa Tengah, Indonesia
Ruknan (ID Scholar: eULYNN8AAAAJ), Universitas Pamulang, Banten, Indonesia
Khayatun Nufus (ID Scholar: To24T5oAAAAJ), Universitas Islam Negeri (UIN) Syarif Hidayatullah Jakarta, Indonesia
Juhaeri (ID Scopus: 57223021697) - (ID Scholar: abr-6FQAAAAJ), Universitas Pamulang, Banten, Indonesia

Sawaluddin (ID Scholar: Ce24z3oAAAAJ), STAI Rokan Hilir, Riau, Indonesia
Dameis Surya Anggara (ID Scholar: FtqqdOAAAAAJ), Universitas Pamulang, Banten, Indonesia
Dedi Darwis (ID Scholar: p4-7UvwAAAAJ), Universitas Teknokrat Indonesia, Lampung, Indonesia
Fatimah Mulya Sari (ID Scholar: PITVIXQAAAAJ), Universitas Teknokrat Indonesia, Lampung, Indonesia
Zahida I'tisoma Billah (ID Scholar: goRxbHoAAAAJ), Institut Ilmu Keislaman Zainul Hasan Genggong, Probolinggo, Jawa Timur, Indonesia
Ahmad Fitriansyah (ID Scholar: _u9HgYMAAAAAJ), Institut Teknologi dan Bisnis Swadharma, Jakarta, Indonesia
Asep Suherman (ID Scholar: TvTJllsAAAAJ), Universitas Pamulang, Banten, Indonesia
Astohar (ID Scholar: H4dV8jQAAAAJ), STIE Totalwin Semarang, Jawa Tengah, Indonesia
Dewi Zulvia (ID Scholar: 5tv9CaQAAAAJ), STIE KBP, Padang, Sumatera Barat, Indonesia
Elmira Siska (ID Scholar: PD5BWe8AAAAJ), Universitas Bina Sarana Informatika, Jakarta, Indonesia
Endang Afriyeni (ID Scholar: MtwOFkAAAAJ), Politeknik Negeri Padang, Sumatera Barat, Indonesia
M. Ichwan Hamzah (ID Scholar: t9dqFTA AAAAJ), Sekolah Tinggi Ilmu Ekonomi Bisnis Indonesia (STIEBI), Jakarta, Indonesia
Friska Mastarida (ID Scholar: U2_dHz4AAAAJ), ITL Trisakti, Jakarta, Indonesia
Iston Dwija Utama (ID Scholar: kCNzLBUAAAAJ), Universitas Bina Nusantara, Jakarta, Indonesia
Nuzul Inas Nabila (ID Scholar: 0GhhbY0AAAAJ), Universitas Lampung, Indonesia
Farih Ismawan (ID Scholar: wmd_FeYAAAAJ), Universitas Mohammad Husni Thamrin Jakarta, Indonesia
Wenny Pebrianti (ID Scopus: 57193164721) - (ID Scholar: A-XBQJUAAAAJ), Universitas Tanjungpura, Pontianak, Kalimantan Barat, Indonesia
I Wayan Gde Sarmawa (ID Scholar: DmEm0XsAAAAJ), Universitas Warmadewa Denpasar, Bali, Indonesia
Syafieq Fahlevi Almassawa (ID Scholar: 7sf-XnwAAAAJ), Universitas Pamulang, Banten, Indonesia
Ni Putu Santi Suryantini (ID Scopus: 57205394536) - (ID Scholar: KcMNXQ8AAAAJ), Universitas Udayana, Denpasar, Bali, Indonesia
Bambang Sutrisno (ID Scopus: 57269726900) - (ID Scholar: bXeUNgUAAAAJ), Universitas Muhammadiyah Jakarta, Indonesia
Supri Wahyudi Utomo (ID Scholar: MGYSXFAAAAAJ), Universitas PGRI Madiun, Jawa Timur, Indonesia
Gentur Jalunggono (ID Scholar: wFoHG40AAAAJ), Universitas Negeri Tidar Magelang, Jawa Tengah, Indonesia
Puspita Rama Nopiana (ID Scholar: 2kY1rcEAAAAJ), Institusi STIE Galileo, Batam, Kepulauan Riau, Indonesia
Rian Destiningsih (ID Scholar: ckUvua0AAAAJ), Universitas Negeri Tidar Magelang, Jawa Tengah, Indonesia
Miralda Indarti (ID Scholar: rZMt5fQAAAAJ), Sekolah Tinggi Ilmu Ekonomi IPWI Jakarta, Indonesia
Ika Baskara (ID Scholar: CUfLQoYAAAAJ), Universitas Esa Unggul Jakarta, Indonesia

Proofreader

Rahmayeny Putri Batubara, Universitas Sumatera Utara (USU), Medan

Layout

Muhammad Fahrizal

Editor's Address and Administration

Jurnal MANDIRI: Ilmu Pengetahuan, Seni, dan Teknologi

by address Lembaga Kajian Demokrasi dan Pemberdayaan Masyarakat (LKD-PM)
Jalan Kiwi IV No. 7, Griya Pamulang Estate, Pamulang Timur, Tangerang Selatan 15417
Website: www.jurnalmandiri.com
E-mail: jurnalmandiri@lkd-pm.com
Telp./Faks.: 021-74771224

Jurnal MANDIRI: Ilmu Pengetahuan, Seni, dan Teknologi

published by Lembaga Kajian Demokrasi dan Pemberdayaan Masyarakat (LKD-PM), since June 2017.
Published every six months (twice a year).
The person in charge is the Director of LKD-PM.

Publishers accept contributions of writings that have never been published by other media. Articles can be sent in the form of printed and softcopy articles with the format as listed on the back page. The submitted articles will be reviewed for substance by the Editorial Board and edited for uniformity in format, terms, and other procedures.

The Organizational Development Strategy of a Waste Bank at Bank Sampah Regensi by Using SWOT Analysis <i>oleh Lutfi Yulian, Budi Rianto, Pitri Yandri</i>	59
The Role of the Private Sector to Support the Special Region of Yogyakarta’s Craft Product Exports to the Global Market <i>oleh Shanti Darmastuti, Sri Issundari, Mansur Juned, Nazaruddin Agus Salim Putra Angkotasan</i>	75
The Influence of Dividend Policy and Debt Policy on Company Value at PT Arwana Citramulia Tbk Period 2010-2019 <i>oleh Siti Nur’aidawati, Ifa Nurmasari</i>	87
Customer Satisfaction and Loyalty Management of Bank Sahabat Sampoerna Branch Kelapa Gading <i>oleh Wahid Akbar Basudani, Valentine Theresia Simamora, Gani Wiharso, Muhammad Abdullah, Hary Mulyadi</i>	99
Evaluation of Ecosystem Services and Mangrove Management Based on the Blue Economy Approach of Untung Jawa Island <i>oleh Aryo Sahid Sujiwo, Nurlaili</i>	116
Determinants of Profit Growth Based on Financial Ratios at PT Ace Hardware Tbk <i>oleh Ivan Putranto, Citra Eliyani</i>	137

A large, stylized graphic of musical notation on a curved staff, resembling a globe or a sphere, dominates the right side of the page. The notation consists of various notes, stems, and beams, all rendered in black and white, creating a sense of movement and rhythm. The background is a light gray gradient.

Jurnal
MANDIRI^{®™}
ILMU PENGETAHUAN, SENI, DAN TEKNOLOGI

www.jurnalmandiri.com

ISSN : 2580-3220, E-ISSN : 2580-4588
J. Mandiri., Vol. 6, No. 2, Desember 2022 (59 - 74)
©2017 Lembaga Kajian Demokrasi
dan Pemberdayaan Masyarakat (LKD-PM)
DOI: <https://doi.org/10.33753/mandiri.v6i2.193>

The Organizational Development Strategy of a Waste Bank at Bank Sampah Regensi by Using SWOT Analysis

Lutfi Yulian

lutfiyulian70@gmail.com

Fakultas Ekonomi dan Bisnis, ITB Ahmad Dahlan Jakarta

Pitri Yandri

Fakultas Ekonomi dan Bisnis, ITB Ahmad Dahlan Jakarta

p.yandri@gmail.com (correspondence)

Abstract

Waste is still one of the factors of environmental pollution. The rate of increase in waste every year increases without the addition of TPS. Along with the confirmation of the Corona virus and many community activities are done from home, such as shopping and online selling activities. Without realizing it, these activities cause new waste, such as tape, bubble wrap, and plastic wrap. Waste reduction and management can be done through waste banks. As in Cisoka Indah Regensi Housing, there is a Bank Sampah Regensi. The Bank Sampah Regensi is run by teenagers in RT.03 RW.06. Where their average age is still a student. This study aims to identify the weaknesses, strengths, opportunities and threats of the Bank Sampah Regensi and provide recommendations for the best strategies that the Bank Sampah Regensi can take for the development of the Bank Sampah Regensi organization. This research is a qualitative descriptive research with descriptive analysis techniques and quantitative SWOT of IFAS and EFAS. The sampling technique uses purposive sampling. The results of this study show that the Regence Waste Bank is in quadrant I, meaning that the organization is in a strong position and has the opportunity. The recommended strategy is to support aggressive policies (growth oriented strategy), namely: sensitivity training, team building, and management by objective. As well as the Strengths-Opportunity strategy and the Weakness-Opportunity strategy.

Keywords: SWOT Analysis, Waste Bank, Organization

INTRODUCTION

Waste is still a problem in every country, including Indonesia. Garbage pollutes not only the soil, but also water, in this case seas, lakes and rivers. Ferronato and Torreta (2019) said, the main environmental impacts detectable are: visual impacts, air contamination, odors, and green-house gasses emission, vectors of diseases, surface water and groundwater pollution. Waste

is the rest of human daily activities and or natural processes in solid form (UU No.18 Tahun 2008 Pasal 1 Ayat 1). In various parts of the world including Indonesia, waste is still one of the factors of environmental pollution. Based on data from the Ministry of Environment and Forestry (KLH), Indonesia produced 33.1 million tons of waste in 2020 with various waste compositions as follows:

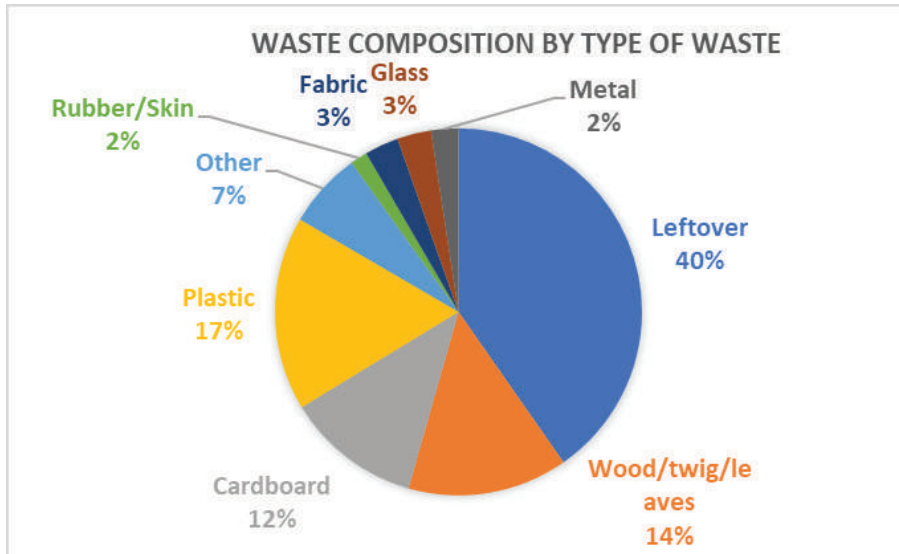


Chart 1. Waste composition graph by type of waste
Source: Ministry of Environment and Forestry (2020)

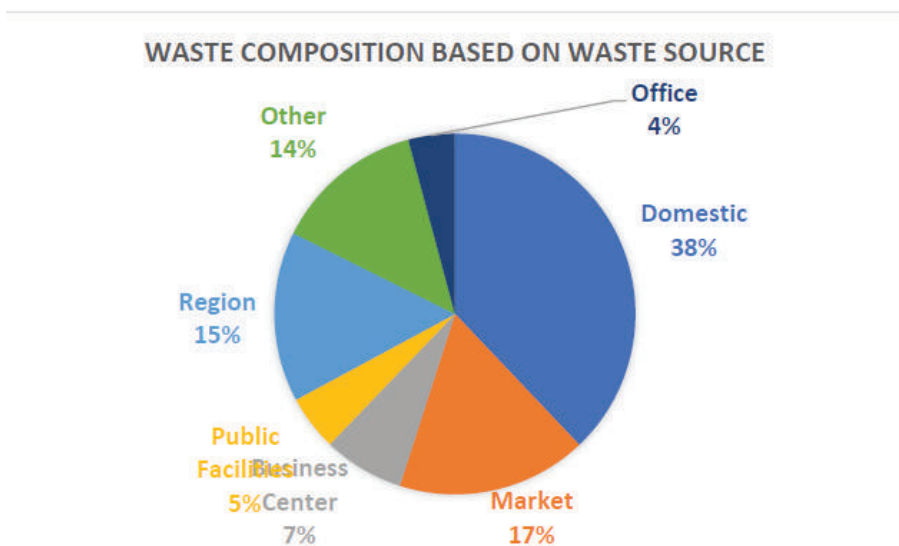


Chart 2. Graph of waste composition by source of waste
Source: Ministry of Environment and Forestry (2020)

From the data above, the waste that has been managed is 59.3 percent with a total of 19,655,777.48 million tons of waste and the unmanaged is 40.64 percent with a total of 13,457,500.21 million tons of waste. Of the waste data that has been managed, 13.55 percent have been waste reduction processes and 45.8 percent have waste handling processes.

The amount of waste generated in 2019 was 32 million tons of waste. There was an increase of 1 million tons of waste in 2020. If you look at the comparison picture above, there is likely to be more increase every year. The increase in waste generation, which is large and not accompanied by the addition of TPS, will only make the mountains of waste higher and it is feared that it

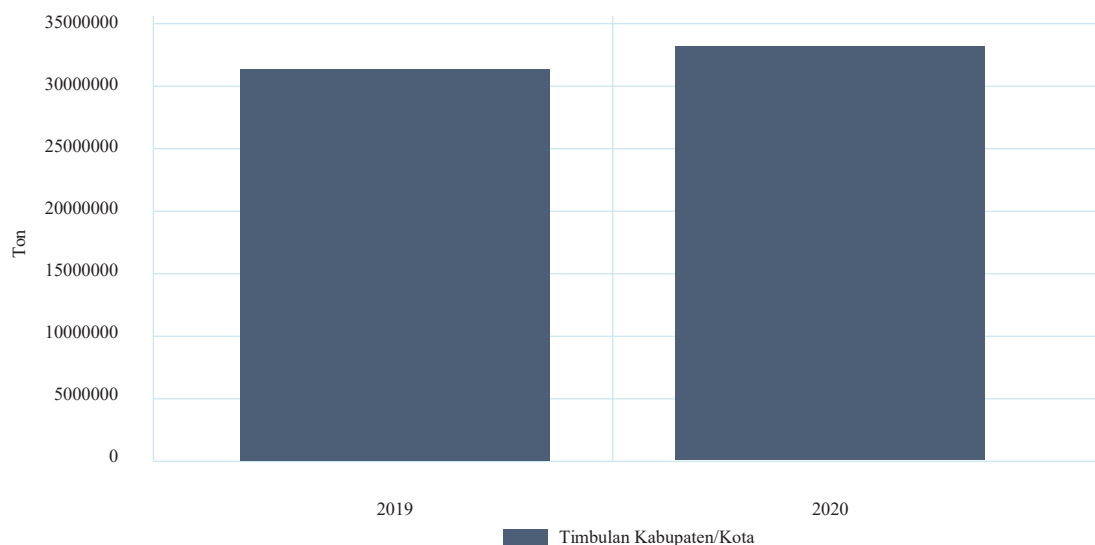


Figure 1. Comparison picture of national waste generation
 Source: Ministry of Environment and Forestry (2020)

will cause new problems in the community.

One of the causes of the increase in the amount of waste in Indonesia is online shopping. In March 2020 when the Corona Virus was confirmed, the government made a policy to stay at 'Rumah Saja' and every company in accordance with the government's direction to implement WFH (Work From Home). In addition, many public places are under lockdown such as: malls, schools, markets and houses of worship. This is one of the underlying things that underlies many people who sell online and shop online, without realizing it, these activities cause a lot of new waste such as: tape, plastic wrapping and bubble wrap.

This is also the case in the Cisoka Indah Regensi Housing area. Because, many public places are in lockdown, many residents decide to shop online. Apart from the lockdown, the price factor and availability of goods are one of the reasons for citizens to shop online. And unwittingly the quantity of garbage increases. If left like this, it will pollute the cisoka indah regensi housing environment. There needs to be efforts to reduce waste in the Cisoka Indah Regensi Housing environment as well as efforts to reduce waste in the environment around us. Efforts to reduce waste can be done by managing and processing waste. Good, proper, and waste management and processing, and reuse waste is one of the efforts to reduce the quantity of waste. Waste

management and processing can provide added value so that waste can be turned into something useful (Ahmadi et al, 2021). In the Regulation of the Minister of Environment and Forestry of the Republic of Indonesia No.14 of 2021, waste management includes: waste reduction and waste handling. Waste that was originally disposed of directly or sold to collectors, can now be sorted and collected in a Waste Bank community. According to the Regulation of the Minister of Environment and Forestry of the Republic of Indonesia No.14 of 2021, the Waste Bank is a facility to manage waste with the 3R principle (reduce, reuse, and recycle), as a means of education, changes in waste management behavior, and the implementation of a circular economy, which is formed and managed by the community, business entities, and or the government.

Waste Bank is a system of collective dry waste management by encouraging the community to play an active role in it. The system accommodates, sorts and distributes waste of economic value to the market so that people get economic benefits from saving waste (Riswana et al, 2018) and one of the alternatives to invite residents to care about waste with a household-based waste management system (Halid et al, 2022). The purpose of the waste bank is to reduce waste from its source by educating the community; creating a livable environment and area that is

livable clean beautifully safe green; reducing psychiatric diseases in the community; increasing the economic added value of its members through its derivative businesses; creating harmony among citizens; and creating confidence in their environment (Sekarningrum et al, 2017).

In the Cisoka Indah Regensi Housing area, there is a Unit Waste Bank. Unit Waste Bank is a Waste Bank whose service area includes administrative areas at the level of neighboring pillars, community harmony, urban village or villages or other designations (Permen LHK RI No.14 of 2021). This Waste Bank is called 'Bank Sampah Regensi', a Waste Bank that manages household waste from residents of Cisoka Indah Regensi Housing RT.03 RW.06.

The Bank Sampah Regensi is managed by a group of Karang Taruna teenagers RT.03 RW.06 who are still students on average, and under the supervision of the Chairman of RT.03. Seeing this management, waste management in the Bank Sampah Regensi is still simple, the waste collected only in sorting has not been there until the recycling stage. Seeing this, a breakthrough must be made in the waste bank organization environment. Because if a breakthrough is not made, the waste bank may not develop. A good and thriving organization can bring progress to its community. According to Gitosudarmo and Sudita (2016) Organization is a system consisting of patterns of cooperative activities that are carried out regularly and repeatedly by a group to achieve a goal. Organizations play an important role in training interpersonal cooperation, training for discipline, and developing abilities. In management, organization is one of the important functions of carrying out management. Elements of management will not be useful if one of its functions, namely the organization does not exist. And other management functions such as: implementation functions, coordination functions, and supervisory functions will not be able to be implemented if there are no organizational functions in management.

Every organization has goals to be achieved. To achieve this goal, each organization has a different organizational strategy. Sobirin (2019) said, "Organizational strategy is a management tool just like any other management tool that is deliberately designed so that the organization can achieve long-term goals as part of achieving the vision and mission of the organization". The right organizational strategy can bring change and development to the organization. Organizational strategy is also important for the organization of waste banks. Because it functions as a waste bank organizational management tool to achieve the vision, mission, goals and ideals of the waste bank along with the development of the waste bank organization.

Organizational development is a process related to a series of systematic change planning carried out continuously by the organization (Gitosudarmo and Sudita, 2016). Organizational development includes changes in attitudes, perceptions, and behaviors due to environmental factors. As in the era of digitalization, waste bank organizations inevitably have to keep up with the changing times for the development of a better waste bank organization. For example, in the past, if everyone's information was collected by conveying messages between people per person, now by utilizing a chat application, it can convey information to everyone.

SWOT analysis compares external factors, namely opportunities and threats with internal factors, that is, strengths and weaknesses. SWOT analysis is not an analysis that can provide a way out, but a SWOT analysis is an analytical tool that is able to show a description of the situation that is being faced and that may occur in a company or organization and SWOT analysis can be used in various ways to help with strategy analysis (Raharja, 2016). With a SWOT analysis, it is hoped that it can help a company and organization to determine its priority level. In SWOT analysis there will be a possibility of four alternative cell strategies. Below are the tables in shaping the SWOT matrix:

Table 1. SWOT matrix

	SW	Strengths	Weakness
OT			
Opportunity		S-O Strategy Using powers to capitalize on opportunities	W-O Strategy Creates a strategy that minimizes weakness to capitalize on opportunities
Threats		S-T Strategy Create a strategy that USES force to deal with threats	W-T Strategy Create a strategy that minimizes weakness and avoids threats

In a data analysis using SWOT analysis, it was finally formulated an appropriate strategy for an organization or company. Below is a SWOT diagram used in determining organizational or corporate development strategies.

the Aggressive Strategy cell. Meanwhile, through the results of the preparation of the SWOT matrix, there are eleven alternative strategies that can be applied by the Garuda Wastu Lestari Waste Bank.

The priority of strategy selection that can

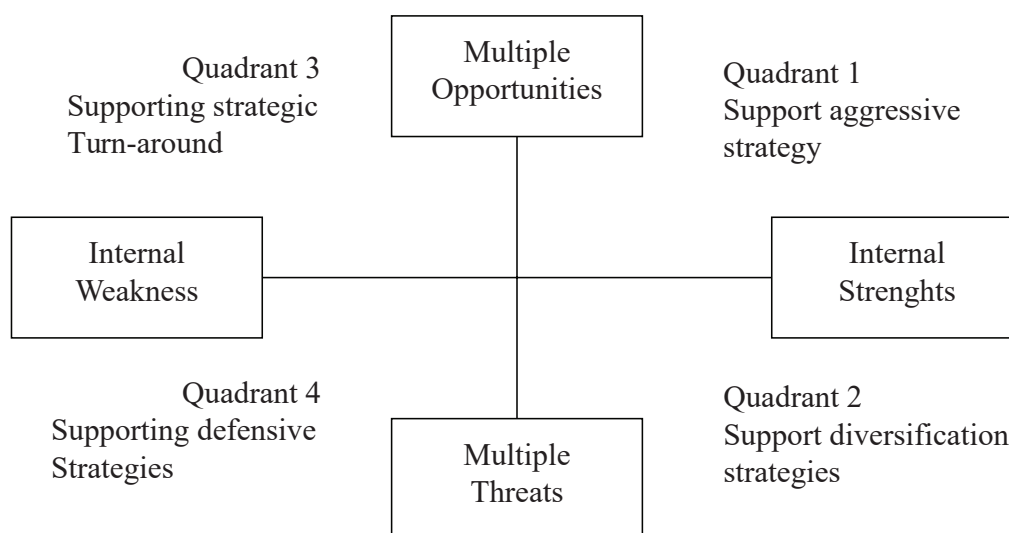


Figure 2. SWOT diagram

Several studies have been conducted previously in determining management strategies, developing waste banks and some of them using SWOT analysis. Namely, a study conducted by Anggreni Putri (2018), with the research title "Analysis of The Business Development Strategy of Garuda Wastu Lestari Waste Bank". The results of the study, namely the SWOT analysis diagram, showed that the company was in cell 1, namely in

be done by looking at the company's position in the current business competition is the S-O (Strenght-Opportunity) Strategy, utilizing the strengths it has to seize existing opportunities. Thus the priority of the right effort to be made is: 1) maintaining and improving the quality of the services produced; 2) maintain and improve good relations with workers, customers; and relevant institutions or agencies; 3) maintain and

improve promotional and socialization activities; and 4) increase cooperation and waste bank networks. Furthermore, research from Linda et al (2017), with the research title "Waste Bank Development Strategy in Depok Region". The results of the analysis of EFE and IFE waste banks show that this activity has the potential to grow and develop while consistently carrying out ongoing activities, having business planning and waste bank development goals, expanding network relationships or networking with outside parties and penetrating and developing markets to encourage sales of waste processing products.

As a result of researchers' observations, the Bank Sampah Regensi can still develop by starting development within its organization. The average management is still a student, waste bank activities are very good for their education, as well as education for residents of Cisoka Indah Regensi Housing RT.03 RW.06. However, if you look at those who are still students, of course, many of them are busy with individual activities, this has a direct effect on waste bank activities. In addition, if you look at the development of today's increasingly modern era, many young people spend their time with games, this is a threat to the youth who manage the Bank Sampah Regensi if they cannot limit their interaction with games. From the above phenomenon, the researcher conducted research on the Regensi Waste Bank organization using a SWOT analysis (Strength, Weakness, Opportunity, Threats) to examine the weaknesses, strengths, opportunities and threats of developing the Regence Waste Bank organization. So this research is entitled "Strategy for Developing Waste Bank Organization in Bank Sampah Regensi using SWOT Analysis".

METHODS

The location of this study is the Bank Sampah Regensi located in the Cisoka Indah Regensi Housing RT.003 RW.006, Cisoka, Kab. Tangerang. The sampling technique in this study was to use purposive sampling. With the following criteria: have knowledge and understanding of the Bank Sampah Regensi. Become part of the management (organization) of the Bank Sampah

Regensi, and willing to be a resource person. The number of samples consisted of five respondents. Two guys from the organization, three guys from the Bank Sampah Regensi customers.

Data collection techniques in this study, using interview techniques, questionnaires and documentation. This research is a qualitative research with the analytical techniques used, namely descriptive and quantitative SWOT analysis. A SWOT analysis is an evaluation of overall strengths, weaknesses, opportunities, and threats (Shamadiyah, 2017). SWOT analysis is one of the analyses that has been widely used by organizations, companies, and government institutions (Sari et al, 2021). In detail, the aspects of the question asked are related to internal conditions (strengths, weaknesses) external conditions (opportunities, threats) of the Bank Sampah Regensi, overall the details of the data submitted can be seen in table 3 to table 6.

This SWOT analysis is based on the assumption that an effective strategy is derived from a good "fit" between external internal situations (Anggreni, 2018) and is based on logic that can maximize to kuatan and opportunities and simultaneously can minimize weaknesses and threats (Suhelipi et al, 2020; Wahyuni, 2020). Quantitative SWOT analysis is carried out using the IFAS (Internal Factors Analysis Summary) matrix and the EFAS (External Factors Analysis Summary) matrix.

RESULTS

Based on the results of the research that has been carried out, the following are the results of interviews with respondents and results based on documentation at the research location: The Bank Sampah Regensi Mechanism Waste Sorting, the sorted waste is waste that still has economic value. The waste is sorted starting from each customer's home, or can also be sorted when in a waste bank, then grouped according to type and stored in a separate container. Such as, paper or cardboard waste, plastic, cans, and so on.

Disaggregated waste is deposited into the waste bank, the waste that has been collected by the customer in their respective homes, can

be deposited into the waste bank for weighing. The waste is weighed, before weighing, residents who come with the garbage to be weighed must register first, then after that wait for the queue process. If it is already at the time when he is called, his garbage begins to be weighed. the litter is then weighed per each type. The implementation of weighing and determining the type of waste is carried out directly by the buyer of the waste or collector. In general, the minimum weight of waste of each type is 0.5 kg, if it is still less than 0.5 kg, it is urged to be collected again or if indeed the customer is willing or agrees, the waste will still be weighed with the provision that it is calculated with the lowest waste value.

Recording, customer waste that has been weighed is then converted to the value or price of waste of each type, added up in total and recorded into a passbook. Customers are given a passbook, the money from weighing waste is not given in cash but is stored in savings. The types of Savings provided to the Customer are: (1) Regular Savings, taken every 3 (three) months; (2) Education Savings can be disbursed every 6 (six) months; (3) Religious Holiday Savings, disbursed once every 1 (one) year; (4) Social or Environmental Savings, savings are considered as infak or alms so that for this type of savings the customer is not allowed to take the money.

For this type of savings, waste banks will be used for environmental activities and social activities around the waste bank environment. The weighted waste is carried by the seller, all the waste from the community that has been weighed is directly transported by the buyer of the garbage / stall / collector, so there is no need to need a

shelter. Or if there is a warehouse, the waste can be stored in advance in the warehouse in order to sort and clean the waste to get a higher selling value from the seller or it can also wait for the selling price to the seller to be high.

Analysis of Internal factors and External Factors

The EFAS (External Factors Analysis Summary) and IFAS (Internal Factors Analysis Summary) assessments are the result of distributing questionnaires to administrators and customers of Bank Sampah Regensi. Where the questionnaire is in accordance with the current state of the Bank Sampah Regensi which is obtained from the interview results and then sorted into the SWOT factor. The following respondents in the data collection:

1. Respondents 1: Mr. Sumarno (47 years old / Chairman of the household 03 / The Bank Sampah Regensi builder).
2. Respondents 2: Intan (18 years old / Private employees / Vice chairman of the Bank Sampah Regensi).
3. Respondents 3: Mrs. Imas (41 years old / Housewives / Customer of Bank Sampah Regensi).
4. Respondents 4: Mrs. Rosmiatai (47 years old / Private employees / Customer of Bank Sampah Regensi).
5. Respondents 5: Mr. Abu Bakar (49 years old / Entrepreneurship / Customer of Bank Sampah Regensi).

Based on the results of interviews with speakers, internal and external factors of the Waste Bank were obtained as follows:

Table 2. Table of internal and external factors

Strengths (S)	Weakness (W)
<p>1) The designed organizational structure is in accordance with the tasks, functions and responsibilities.</p> <p>2) The Bank Sampah Regensi aims to change the mindset of the community in managing waste and the environment.</p> <p>3) Have a vision and mission</p> <p>4) The services provided by the Bank Sampah Regensi make it very easy for customers.</p> <p>5) Officers / managers are compact in waste management.</p> <p>6) Communication between managers / administrators is well established.</p> <p>7) The Bank Sampah Regensi Managers can divide time between waste bank activities and personal interests.</p>	<p>1) Do not yet have products from waste management.</p> <p>2) It has not utilized social media optimally as a medium for socializing waste bank activities.</p> <p>3) Ups and downs, the spirit of Bank Sampah Regensi managers in waste bank activities.</p> <p>4) There has not been too much training and seminar for members of the Bank Sampah Regensi.</p>
Opportunity (O)	Threat (T)
<p>1) Providing the community with the opportunity to be able to save money by collecting waste that has economic value.</p> <p>2) There is support from the local government that supports waste bank activities.</p> <p>3) There is a cooperation program with other parties in waste management operations.</p> <p>4) There is a ability to change people's behavior in managing waste.</p> <p>5) There is a contribution from the community in helping activities at the Bank Sampah Regensi.</p> <p>6) Have several ways of educating the public.</p>	<p>1) The use of technology has not been optimal.</p> <p>2) Lack of public interest in becoming customers of the Bank Sampah Regensi..</p> <p>3) Price fluctuations from the collectors affect the finances of the Bank Sampah Regensi.</p>

Table 3. Variables and strength indicators

No.	Variable	Weakness (W)
1	Organizational Structure	The designed organizational structure is in accordance with the duties, functions and responsibilities
2	Organizational Objectives	The Bank Sampah Regensi aims to change the mindset of the community in managing waste and the environment.
3	Vision and Mission of the Organization	The Bank Sampah Regensi has a clear vision and mission.
4	Service to customers	The services provided by the Bank Sampah Regensi make it very easy for customers.
5	Officer cohesiveness	Officers / managers are compact in waste management.
6	Communication between members	Communication between managers / administrators is well established.
7	Time management	The Bank Sampah Regensi Managers can divide time between waste bank activities and personal interests

Table 4. Variables and indicators of weakness

No.	Variable	Weakness (W)
1	Management results (products)	Do not yet have products from waste management.
2	Utilization of social media	Have not utilized social media optimally as a medium for socialization.
3	Enthusiasm of waste bank managers	Ups and downs, the spirit of Bank Sampah Regensi managers in waste bank activities.
4	Training activities and seminars	There has not been too much training and seminar for members of the Bank Sampah Regensi.

Table 5. Variables and indicators of opportunity

No.	Variable	Weakness (W)
1	Opportunities for the community	Providing the community with the opportunity to be able to save money by collecting waste that has economic value.
2	Support from the government	There is support from the local government that supports waste bank activities.
3	Cooperation with other parties	The existence of a cooperation program with other parties in waste management operations
4	Changes in people's behavior	There is a ability to change people's behavior in managing waste.
5	Support from the community	There is a contribution from the community in helping activities at the Bank Sampah Regensi.
6	Education for the public	Have several ways of educating the public.

Table 6. Variables and indicators of threat

No.	Variable	Weakness (W)
1	Technology utilization	The use of technology has not been optimal.
2	Lack of enthusiasm of the people	Lack of public interest in becoming a customer of the Bank Sampah Regensi.
3	Price fluctuations	Price fluctuations from the collectors affect the finances of the Bank Sampah Regensi.

DISCUSSION

To be able to develop an organizational development strategy for the Bank Sampah Regensi, it is necessary to have processing on the IFAS (Internal Factors Analysis Summary) and EFAS (External Factors Analysis Summary) matrices to find out the position of the organization. The following results of processing the IFAS and EFAS matrix are presented in the radar diagram:

Based on the diagram above, it is known that the main strength of the Bank Sampah Regensi is in the communication variable between members with a score of 0.336 and the main weakness of the Bank Sampah Regensi is in the variable of management results (products) where the Bank Sampah Regensi does not yet have a product from waste management results with a score of 0.144. The final result of internal factors with the IFAS

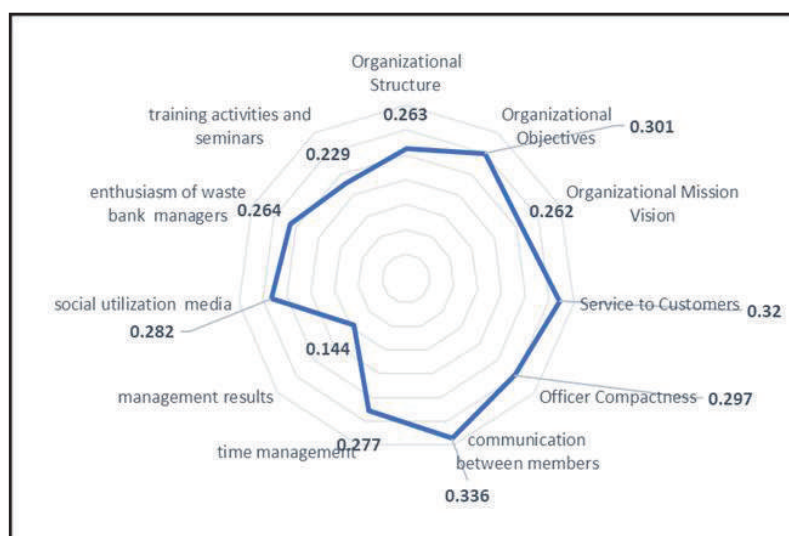


Figure 3. IFAS matrix radar diagram

matrix is with a total score of > 2.50 which is 2.97 which indicates that strength is greater than weakness, or internal factors are quite strong.

processed using the IFAS (Internal Factors Analysis Summary) matrix and the EFAS (External Factors Analysis Summary) matrix. Thus, the total

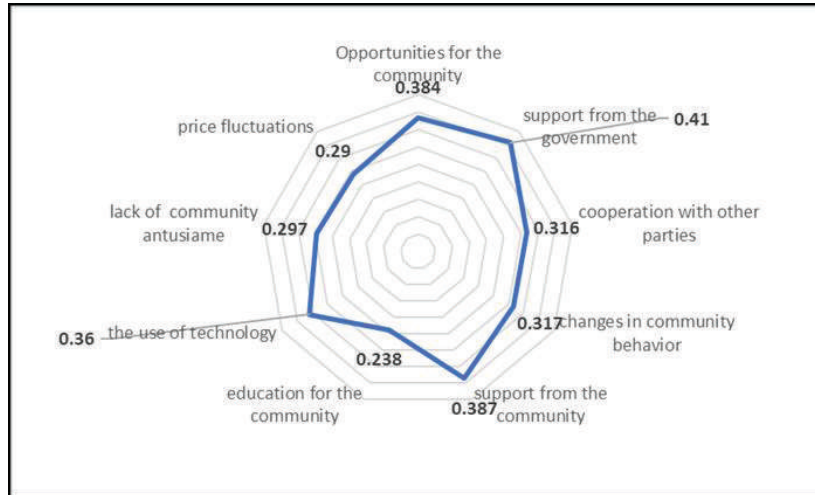


Figure 4. EFAS matrix radar diagram

The support of the local government in waste bank activities is the biggest opportunity with a score of 0.410 and fluctuations in the price of buying and selling waste from collectors are very threatening factors with a score of 0.290. The end result of external factors with the EFAS matrix is with a total score of 3,000 indicating that the chances are greater than the threat.

Based on the analysis of internal and external factors that have been obtained and

score of each factor is obtained, as follows: for the strength value (Strength / S) of 2.056, for the weakness value (Weakness / W) of 0.918, so that the value of $S-W (X) = 1.137$ is obtained. For the opportunity value (Opportunity/O) of 2.052, for the threat value (Threats/T) of 0.948, so the $O-T (Y)$ value = 1.104 is obtained. Thus obtained the coordinate point X,Y at the position of the point (1.137 ; 1.104) and depicted in the following SWOT diagram:

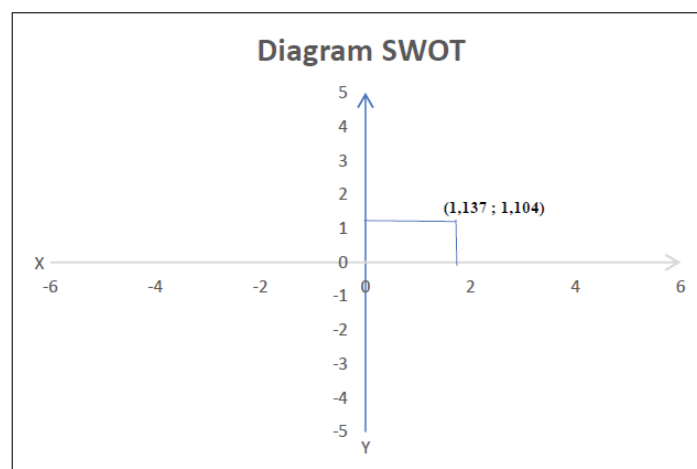


Figure 5. SWOT diagram

Based on the SWOT diagram image above, it shows that the position of the organization is in quadrant I which shows that the organization has a strong position and has the opportunity. The strategy recommendations given are to support aggressive policies (growth oriented strategy) meaning that the organization is in a prime and good position, so that it is possible for the organization to continue to develop. This strategy is actually not a new strategy, as several previous studies from the results of his research suggest the same thing. As in the research conducted by Khoirunnisa et al (2020) with the title "Strategy for Developing a Village Office Service Information System Using SWOT Analysis (Case Study of Sukabungah City Village London)". With the results of the study, the object of study is in quadrant I.1

In this study, organization to be precise the Bank Sampah Regensi can implement aggressive strategies such as the following:

1. Strategies that can be used by Bank Sampah Regensi can be started from the internal organization first. Such as doing sensitivity training strategies or techniques, understanding and improving work on the behavior of organizational members and their impact on others. Such as evaluating each completed activity of all members and seeing its progress

in the environment or in the community. Or by distributing questionnaires to waste bank customers or the public about satisfaction with the performance of the Bank Sampah Regensi members.

2. Team building strategies can also be applied in organizational development. By discussing the problem of waste bank performance issues with all members, finding a way out, improving performance (evaluation) and implemented, so that the waste bank can gradually develop.
3. Management by objective strategy can also be applied, here the leadership or coach at the Bank Sampah Regensi with other members work together to establish and achieve the organizational goals of the waste bank, then implemented and after that conduct an evaluation.

SWOT Matrix Analysis

The SWOT matrix is a tool for managers to determine the strategies taken by the organization based on the conditions of internal and external factors that the organization currently has (Riyanto, et al 2021). After identifying the internal and external factors of the waste bank organization, a model of strategy formulation is then created as shown below:

Table 6. Variables and indicators of threat

Internal	Strength (S)	Weakness (W)
	<ol style="list-style-type: none"> 1. The designed organizational structure is in accordance with the tasks, functions and responsibilities. 2. The Bank Sampah Regensi aims to change the mindset of the community in managing waste and the environment. 3. The Bank Sampah Regensi has a clear vision and mission. 4. The services provided by the Bank Sampah Regensi make it very easy for customers. 5. Officers / managers are compact in waste management. 6. Communication between managers / administrators is well established. 7. The Bank Sampah Regensi Managers can divide time between waste bank activities and personal interests 	<ol style="list-style-type: none"> 1. Do not yet have products from waste management. 2. Have not utilized social media optimally as a medium for socialization. 3. Ups and downs, the spirit of regensi the Bank Sampah Regensi managers in waste bank activities. 4. There has not been too much training and seminar for members of the Bank Sampah Regensi.
External	S-O Strategy	W-O Strategy
Opportunity (O)	S-O Strategy	W-O Strategy
<ol style="list-style-type: none"> 1. Providing the community with the opportunity to be able to save money by collecting waste that has economic value. 2. There is support from the local government that supports waste bank activities. 3. There is a cooperation program with other parties in waste management operations. 4. There is a ability to change people's behavior in managing waste. 5. There is a contribution from the community in helping activities at the Bank Sampah Regensi. 6. Have several ways of educating the public. 	<ol style="list-style-type: none"> 1. The existence of a vision, mission of the organization and a clear goal to change the mindset of the community, the Bank Sampah Regensi must use all its methods to educate the public. (S2, S3, O6) 	<ol style="list-style-type: none"> 1. Make products from the results of waste management, cooperate or collaborate with the government or with other parties. (W1, O2, O3) 2. The existence of social media, which is now favored by many people, must be used more as a socialization media, and public education about waste, waste management, and about waste banks. (W2, O6) 3. Administrators or managers should more often seek information about seminars and training from the government or information from social media.

Threat (T)	S-T Strategy	W-T Strategy
1. The use of technology has not been optimal.	1. Improve services to waste bank customers by utilizing technology to the fullest to make it more effective and efficient.	1. Creating products by utilizing technology as additional income apart from selling waste to collectors.
2. Lack of public interest in becoming a customer of the Bank Sampah Regensi.	(S4, O1)	(W1, T1, T3)
3. Price fluctuations from the collectors affect the finances of the Bank Sampah Regensi.		

From the SWOT matrix table above, it can be concluded several strategies that can be carried out as follows:

Matrix Analysis SWOT Strategy SO

In this condition, it is a good position where the organization can use all its strength to take advantage of the opportunity as much as possible. So that the organization can develop the organization with all the advantages it has. There are several strategies that can be done:

- The Bank Sampah Regensi already has a clear vision, mission and clear goals, namely to change the mindset of the community, change the mindset of the community towards waste management. So, the Regensi Waste Bank can use all the methods it has to further educate the public again.

ST Strategy SWOT Matrix Analysis

In this condition is how to use the overall force to overcome any threats from the outside. Here are the strategies that can be done:

- The Bank Sampah Regensi officers must be more able to improve services to customers by utilizing technology to the fullest, so that services in waste banks are more effective and efficient.

SWOT Matrix Analysis WO Strategy

In this condition, it is a condition where the organization corrects weaknesses by taking advantage of all the opportunities that the organization has. The following strategies can be used:

1. The Bank Sampah Regensi must make or produce products from waste management, waste banks can collaborate with the government or other parties (such as: companies) to produce a product.

2. The rapid development of the internet, gave rise to many social media platforms. Not all social media contains negative things, we will get positive things depending on how we use them. This social media platform must be utilized optimally by waste bank managers as a medium for socialization, education about waste, waste management, and waste banks to the community.
3. To get training or seminars on waste management and waste banks for all members or officers, managers must be active to be able to use social media platforms to find about seminars and training and ask for information from the government that supports waste bank activities.

SWOT Matrix Analysis WT Strategy

This strategy can also be referred to as a defensive strategy by overcoming or reducing weaknesses to avoid threats. Here are the strategies that can be done:

- Creating products by utilizing technology as additional income for waste banks in addition to relying on prices from collectors.

CONCLUSION

Based on the SWOT quadrant matrix, the Bank Sampah Regensi is in quadrant I, which supports aggressive policies (growth oriented strategy). Strategies that can be used for the development of the Bank Sampah Regensi organization are 1) organizational development strategies sensitivity training, team building, and management by objective. 2) SO Strategy; Regensi Waste Bank can use all its methods to educate the public so that their goals can be achieved. 3) WO Strategy; Turn oriented strategy, namely collaborating,

collaborating with the government or other parties in making products from the results of waste management. More use of social media as an educational medium, socialization about waste, waste management and about waste banks. Administrators or managers should more often seek information on seminars, training on waste banks, waste management from the government or from social media.

ACKNOWLEDGEMENT

The author expresses appreciation to the Bank Sampah Regensi, especially to the coaches, officers, and customers of the Bank Sampah Regensi, who have allowed the author to conduct research at the Bank Sampah Regensi. As well as providing the data needed by the authors in this study, so that the authors can complete this research.

REFERENCES

- Anggreni, P. (2018). Business Development Strategy Analysis of Garuda Wastu Lestari Waste Bank. *Satyagraha Journal*, Vol.01 No.02.
- Ahmadi, K. Lorine, T. Nonok, S. Edyson, I., & Imroatus S. (2021). Waste Management Assistance at Eltari Waste Bank, Cemorokandang, Kedungkandang District, Malang City. *Journal of Community Empowerment*, Vol.06 No.02.
- Ferronato, N., & Torreta, V. (2019). Waste Mismanagement in Developing Countries: A Review of Global Issues. *International Journal of Environmental Research and Public Health*, 16: 1-28.
- Gitosudarmo, I., & I Nyoman, S. (2016). *Organizational Behavior*. Yogyakarta: BPFE Member of IKAPI. Issue 1, Cet. 8th.
- Halid, A. Kiki, Y., & Muhamad, S. (2022). Waste Bank Management Strategy in NTB (Case Study of Bintang Sejahtera Waste Bank). *Journal of Innovation Research and Knowledge*, Vol.01 No.08.
- Hasnam, L. F., Rizal, S., & Ahmad, M.Y. (2017). "Waste Bank Development Strategy in Depok Region". *Journal of Business and Management Applications*, Vol. 03 No.03.
- Ministry of Environment and Forestry. (2021). *Waste Management Performance Achievements*. (online). (SIPSN - National Waste Management Information System (menlhk.go.id). Retrieved October 27, 2021).
- Khoirunnisa, F., Siti, R., Soni, S., & Maxi, A. (2020). Village Office Service Information System Development Strategy Using SWOT Analysis (Case Study of Sukabungah Village, Bandung City). *Journal of Technology and Open Source*, Vol.03 No.01.
- Regulation of the Minister of Environment and Forestry of the Republic of Indonesia, Number 13, of 2012, concerning Guidelines for the Implementation of Reduce, Reuse, and Recycle through Waste Banks.
- Regulation of the Minister of Environment and Forestry of the Republic of Indonesia, Number 14, of 2021, concerning Waste Management in Waste Banks.
- Raharja, I. (2016). Organizational Development Strategy in an Effort to Improve the Performance of BAPPEDA Level 1 Central Java Employees. *Journal of Office Administration*, Vol.04 No.02.
- Riswana, I., Didi, R., & Sitti, B. (2018). Strategy Development Bank Garbage at Regency Starch. *Journal R&D*, Vol.XIV No.01.
- Riyanto, Slamet., et al. 2021. *SWOT Analysis as Organizational Strategy*. Yogyakarta: Bintang Surya Madani. Cet. 1st.
- Sari, Y.P., & Hikmawati, F.D.S. (2021). SWOT Analysis of the Ngudipeni Waste Bank Program, Gupitan Podosoko Candimulyo Hamlet, Magelang Regency. *The 13th University Research Colloquium*.
- Sekarningrum, B., Desi, Y., & Sri, S. (2017). Development of Waste Bank in the Community on the Banks of the Cikapudung River. *Journal of Community Service*, Vol.01 No.05.
- Shamadiyah, N. (2017). SWOT Analysis of Community Empowerment Strategy for Community Settlement Environmental Management Program in Suryatmajan Village, Yogyakarta City. *Agrifo Journal*, Vol.02 No.01.
- Sobirin, Achmad. (2019). *Organizational Culture:*

Its Definition, Meaning and Application in Organizational Life. Yogyakarta: UPP STIM YKPN. 3rd Edition, Cet. 1st.

Suhelipi., & Liharman, S. (2020). Waste Bank Marketing Analysis with a SWOT Analysis Approach Case Study on the Waste Bank of the Pematangsiantar City Environmental Agency. USI Journal of Economics, Vol.02 No.02.

Law of the Republic of Indonesia, Number 18, of 2008, concerning Waste Management.

Wahyuni, E.S. (2020). Strategic Planning of Information Systems and Technology in Municipal Waste Banks: A Case Study of the Prabumulih City Waste Bank. Journal of Information Systems and Informatics Development, Vol.01 No.01.

The background of the page is a large, curved musical staff with various notes and stems, creating a sense of motion and rhythm. The staff is curved from the bottom left towards the top right. The notes are black, and the stems are thin black lines. The background is a light gray gradient.

Jurnal
MANDIRI^{®™}
ILMU PENGETAHUAN, SENI, DAN TEKNOLOGI

www.jurnalmandiri.com

ISSN : 2580-3220, E-ISSN : 2580-4588
J. Mandiri., Vol. 6, No. 2, Desember 2022 (75 - 86)
©2017 Lembaga Kajian Demokrasi
dan Pemberdayaan Masyarakat (LKD-PM)
DOI: <https://doi.org/10.33753/mandiri.v6i2.211>

The Role of the Private Sector to Support the Special Region of Yogyakarta's Craft Product Exports to the Global Market

Shanti Darmastuti

Fakultas Ilmu Sosial dan Ilmu Politik, Universitas Pembangunan Nasional Veteran Jakarta
shanti.darmastuti@upnvj.ac.id

Sri Issundari

Fakultas Ilmu Sosial dan Ilmu Politik, Universitas Pembangunan Nasional Veteran Yogyakarta
sri.issundari@upnyk.ac.id

Mansur Juned

Fakultas Ilmu Sosial dan Ilmu Politik, Universitas Pembangunan Nasional Veteran Jakarta
mansurjuned@upnvj.ac.id

Nazaruddin Agus Salim Putra Angkotasan

Fakultas Ilmu Sosial dan Ilmu Politik, Universitas Pembangunan Nasional Veteran Jakarta
nazaruddin.aspa@upnvj.ac.id

Abstract

As international trade flows, businesses aim to expand their market to the global market. One of Indonesia's flagship industries in trade is the creative industry, in which handicrafts are produced. Handicrafts have been Yogyakarta's (officially, the Special Region of Yogyakarta) featured product for export. The government has tried many efforts to increase the chance of accessing the global market with the handicrafts, such as holding exhibitions and building capacity for the craftsmen. Not only the government but also the private sectors are supporting the effort. This study aims to visualize and analyze the role of the private sector in improving the local and global craft markets. We conducted interviews from May to October 2022 with Yogyakarta's government and private sectors to obtain primary data. We also used document analysis to supplement the interviews' analysis. Results show that the role of the private sector, both when working independently and in partnership with the government, is important in supporting the export of Yogyakarta's craft products. However, the study also found that there are some challenges that need to be solved to optimize the private sector's role. Therefore, future studies can be focused on private sector strategies for addressing challenges in export activities.

Keywords: Private, Trade, Market, Industry, Government, Export, Product

INTRODUCTION

Free trade is one of the economic activities that occur in international trade. International trade is the exchange of goods and services between businesses in different countries. In

the implementation of international trade, free trade is carried out to remove trade barriers that complicate the entry of products into a country, such as policies regarding tariffs, quotas, import duties, export duties, and dumping (Firmansyah

& Hendra, 2015). Thus, reducing trade barriers through free trade can smooth international trade activities.

Free trade has encouraged governments to implement policies that prioritize economic growth and product competitiveness in order for their commodities to perform better in international trade. Many governments use this scheme to incentivize citizens to improve their country's economy and productivity. Free trade is expected to encourage more production and improve a country's productivity. This improvement will not occur without the support of policies and institutions, or economic agents, that are responsive to the dynamics of change in international trade. Without the right economic agents, international trade will only give unfitting results to the country's trade target.

In an economic system that focuses on growth, the government has limited ability to cover all types of resources management. The government's role is limited to resources that are the basic needs of the community as regulated by the law. This limitation is where the private sector can complement. The more flexible and open pattern of a private sector are, the wider it can manage. No wonder the private sector is known as one of the main actors in trade, hence making them one of the driving actors in economic activity, both on trade and investment. Compared to the government, the private sector is also easier to adapt with changes of market conditions and to innovate, thus creating product diversification which then become new types of export commodities.

Indonesia's export performance experienced a decline during the Covid-19 Pandemic. As the Ministry of Industry of the Republic of Indonesia reported in 2020, there has been a decline in exports from the processing industry since February 2020. The smallest drop occurred in May 2020, when it was down by US\$ 8.33 billion, or 25.74%, compared to April 2020. This was because of the lockdown policies and restrictions on mobility during the pandemic. However, Indonesia's non-oil and gas processing industry exports continued to increase starting in June 2020 and in December

2020 by 6.76% compared to the previous period. This figure increased compared to December of the previous year, where this value rose 19.11% year-on-year (YoY) (Kementerian Perindustrian Republik Indonesia, 2020).

The private sector plays a huge role in restoring the economy through international trade, primarily through the export activities they carry out. Export activities motivate companies to provide the best products and services that they can produce for the international market. Improving the quality of goods and services is carried out by applying leading technological innovations that can improve production efficiency and product quality. These efforts to improve production by private entrepreneurs ultimately result in increased export competitiveness (Ngatikoh & Faqih, 2020).

Indonesia is a geographically large country rich in commodities and in socio-cultural contexts unique to each of its regions. The private sector produces commodities distinct to each region, offering various types of goods to the international market. This condition makes micro, small, and medium enterprises (MSMEs) dominate the market and become an important foundation in the Indonesian economy. The Ministry of Cooperatives and Small and Medium Enterprises (SMEs) reported in 2021 that the number of MSMEs currently reaches 64.2 million units. The contribution of MSMEs to the national gross domestic product (GDP) is 61.07%, or 8,573.89 trillion rupiah (around USD551 billion). Meanwhile, MSMEs have absorbed 97% of the workforce and collected 60.4% of the total investment (Kementerian Koordinator Bidang Perekonomian Republik Indonesia, 2021).

The diversity of resources and sociocultural influences may also present difficulties for developing MSMEs. Small and medium-sized businesses should be aware of this situation. Large private companies can support their expansion through various efforts to address this issue. Large organizations, for instance, can train small and medium-sized businesses in areas like resource management, supply chain creation, access to financial services, and quality

management. To support monitoring efforts, the private sector may also engage in field monitoring and form collaborations with several regional organizations (Suparno, Wicaksono, & Ariyani, 2013). Businesses could also need to develop a working relationship with the local governments. "MSME Go Export" and other national government initiatives will benefit from these efforts in the future.

Cooperation between local governments, communities, and the private sector in improving the regional economy through the management of local resources to improve the economy is referred to as "local economic development" (Rachmawati, 2015; Munir & Fitanto, 2008). The active role of local governments in developing their areas by involving the private sector has a positive impact. This local economic development helps create new jobs, which then have an impact on economic growth. In connection with the role of the private sector in the economy, the craft industry in Indonesia is well-dominated by the private sector. Being one of the vastly growing provinces in Indonesia, Yogyakarta is rich in craft productivity led by the private sector. Crafts produced in Yogyakarta are rich in cultural and economic values, making them a valuable commodity in the global market.

Many articles have been written about the global market potential of the Indonesian craft industry. For example, the study on the pearl industry in Mataram City suggested that the local private sector utilize distributors as agents to expand their market to the international market. This business strategy was a byproduct of the actor's limited knowledge about global marketing. They also use the internet as a platform to introduce their products (Ilhamuddin, Rusminah, Hilmiati, & Ahyar, 2018). The study on batik promotion strategy also suggested that, other than the government, batik craftsmen and businessmen play important roles in promoting their products in the global market.

Businesses need good competition to reach the global market. It was important to build the capacity of the batik craftsmen and have their training certified by the government. Cooperation

between the batik craftsmen under the batik association also strengthened their development. The study also found that there were challenges for the small-scale craftsmen to improve their capacity to reach the global market (Sukmawati & Kurniawan, 2020). A study performed by Ristiyanti and Debora (2018) also found other challenges faced by the small-scale business in creating the value chain of the earthenware global industry in Kasongan Village, Yogyakarta. Their dependence on export actors and asymmetrical relations with consumers are the main challenges that they face, hindering them from expanding their business to the international level. As a result, the study suggested that the use of e-commerce could be a solution for Kasongan Village's small-scale businesses to market their products.

We can conclude that there are many alternatives for small and medium-scale enterprises to market their products in the global market. Previous studies have also mentioned challenges that they found in small businesses. However, these studies have not specifically studied the role of the private sector in what has been done or can be done to support local products in reaching the global market. Therefore, we offer a description and analysis of the role of the private sector in improving Yogyakarta's craft industries for export.

METHODS

This is a qualitative study that provides a description and analysis of Yogyakarta's local craft industry, as well as the role of the private sector in improving the industry for international export. By using snowball techniques, we interviewed four informants, namely the representative from the Industry and Trade Agency of Yogyakarta (Disperindag DIY), the Regional Development Planning Agency of Yogyakarta (Bappeda DIY), the Chambers of Commerce and Industry of Yogyakarta (KADINDA DIY), and a craft industry community in Yogyakarta. The data were collected from May to October 2022. We also studied documents consisting of journal articles and online articles that discuss Yogyakarta's craft industry in the global market. We use a systematic

literature review by focusing on the themes and methodologies used in previous research to determine the position of this research. The analytical techniques used in this study were carried out through stages of data reduction, such as grouping relevant data, presenting data in descriptions, and verifying data to conclude. Data verification is done by cross-checking data obtained from interviews with literature studies.

RESULTS

Officially the Special Region of Yogyakarta, Yogyakarta is a province located in the center of Java Island. Its capital city is Yogyakarta, and the province is rich in natural resources and cultural heritage. Based on the regional medium-term development planning of Yogyakarta City for the years 2017–2022, the city is superior in three industries: agriculture, tourism, and creative industries. However, the plan mentioned that agriculture has contributed negatively to the city's gross regional domestic product (GRDP) in 2012–2016, down to -2.86% annually. In contrast, the tourism industry contributed 0.57% annually to the city's GRDP. From this situation, the government issued the Governor of the Special Region of Yogyakarta's Decree No. 193 for 2017 on the Tourism Priority Area of Yogyakarta, expanding from Parangtritis to Kasongan-Tembi Village (Pemerintah Kota Yogyakarta, 2017).

Other than tourism, the creative industry is also a priority in Yogyakarta's development plan from 2017 to 2022. The number of Yogyakarta City's micro- and small-scale creative industries is growing rapidly compared to the medium-scale creative industry, with 97% annual growth. The number of MSMEs in 2012–2016 also showed significant growth. These figures show that there was growth in the lower-middle class of Yogyakarta. For example, the people of Bantul Regency have multiple types of creative industries. About 70% of the craft production in Yogyakarta comes from Bantul Regency. It has 24,942 small-scale craft industries per 2021, absorbing 104,363 workers and possessing a production value of 269,766,000 rupiahs (USD 17,362.59). Bantul Regency is home to many crafts in its

villages, such as earthenware in Kasongan, batik in Wijirejo and Wukirsari, leather in Manding, wooden batik in Krebet, and the infamous tatah sungging (wayang crafting) in Pucung. The regency has 75 creative industrial centers in total. These centers are also active in export activities in 2021, with 18,046.2 metric tons of export volume valued at USD 158,889,210.28. Some of the exported products from Bantul Regency are ceramics, crafted leathers, kris, batik, crafted bamboo, wooden batik, and many more (Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu Kabupaten Bantul, n.d.).

To strengthen the handicraft industry market in the global market during the pandemic, the development of breakthroughs in increasing the handicraft industry market in Yogyakarta is increasingly being carried out to restore the market affected by Covid-19. Through digital marketing, for example, businesses conduct virtual exhibitions to promote their products. The use of social media is used to maintain the handicraft industry market at the international level. Cooperation between craft actors in Yogyakarta is a solution to responding to the impact of the pandemic on their product markets. This is done considering that the handicraft industry is one of the leading commodities from Yogyakarta penetrating the export market (Suharson, 2020).

The unique and creative crafts of Yogyakarta are tourist attractions. Another type of Yogyakarta's craft that still has room to develop is the silver and Manding's leather craft industries, where the products are sold at a relatively low price. Both are also of good quality for export, with Manding's leather crafts slowly taking hold in the international market (Kementerian Perindustrian RI, 2012).

As a tourist destination, the craft industry of Yogyakarta is one of the supporting industries for tourism. The craft industry of Yogyakarta itself is a tourist attraction. Other than for tourism purposes, the craft industry has also created job opportunities for the people of Yogyakarta. The silver craft industry produces goods for local tourism and export needs. As a means of doing business, they work in an organized manner under

the auspices of craft associations and unions. Associations also act as growth platforms to build the capacity of small-scale silver craftsmen (Daliman, 2000).

Other than the local and national markets, Yogyakarta's craft industry also has its own place in the global market. The silver craft industry started its effort to access the global market in 1962 and successfully made its first entrance in 1972. They have entered the markets of Canada, Asia, Australia, Europe, and the United States (Daliman, 2000). Regarding this export market, SMEs are one of the players in the handicraft industry supporting the Yogyakarta export market. The wood handicraft industry, for example, is considered to have significant export market potential due to the availability of abundant raw materials, and the demand for this commodity is also increasing in the global market (Ismianti, Mulyani, Halimi, & Saputro, 2019). So, in this case, Yogyakarta's local handicraft commodities have great potential and opportunities to support economic growth in the region.

Yogyakarta's local commodity has contributed a good amount of income for the region. In December 2021, Yogyakarta's exports were valued at USD 64 million, a 14.9% (USD 8.3 million) increase from the previous month's USD 55.7 million. Yogyakarta's exports to giant markets such as the United States, Japan, and Australia reached USD 25.7 million, USD 6.9 million, and USD 5.8 million, respectively. The exported commodities were: (1) 33.25% of unknitted garments; (2) 13.72% of home lighting equipment; and (3) 9.14% of knitted goods. Each commodity contributes USD 26.9 million, USD 7.5 million, and USD 7.5 million, respectively, to the government of Yogyakarta. The three commodities are under the HS-2 group of exports, whereas the group contributed ten types of commodities in January–December 2021, or about 88.4% of Yogyakarta's total exports. The ten types of exported commodities in the HS-2 group have grown by 43.01 percent since 2020. Other than the three leading commodities, agriculture and processing commodities are also Yogyakarta's flagships. In December 2021, each sector will

contribute USD 0.2 million and USD 63.8 million, respectively. The export value in December 2021 compared to December 2020 (year over year) shows that the agriculture commodity did not experience an increase or decrease. In contrast, the processing of commodities experienced a 40.8% increase (Badan Pusat Statistik Provinsi DI Yogyakarta, 2022).

Data received from the Central Bureau of Statistics on Yogyakarta's commodity and export growth shows similar results to Bank Indonesia's data. Bank Indonesia reported that by 2022, Yogyakarta's export performance will be supported by commodity exports dominated by textile, crafted wood, and crafted leather. In the fourth quarter of 2021, Yogyakarta's export performance rose by 28.63% (YoY). This figure is also higher than its previous quarter (18.78% YoY) (Bank Indonesia, 2022).

We've interviewed the Export Development Division of Yogyakarta's Industry and Trade Agency (Informant 1) on the largest market destination. So far, the largest destinations are: the United States of America, Australia, South Korea, Japan, China, Honduras, Germany, the Netherlands, and the United Kingdom. The informant also said that the exported crafts include wooden furniture, leather gloves, textiles, and clove essential oil. The government of Yogyakarta also aims to develop the fashion industry for export with their sister cities. Yogyakarta is partnering with Victoria (Australia), Gyeongsangbuk-do (South Korea), and Kyoto (Japan) to expand their reach to the global market. Other than partnering with cities, Yogyakarta also regularly holds exhibitions targeting local and international audiences.

Developing industrial centers in Yogyakarta is one of the strategies to support regional economic development. In this case, the characteristics of the local community can be represented by souvenir products. The creation of industrial centers can contribute to the tourism sector and the empowerment of local communities. The development of industrial centers can take the form of developing industrial centers for pottery, weaving, and wall decoration (Widyastuti, Abadi,

& Putra, 2022). Thus, the creative industry can be one of the business sectors that encourage economic development. To strengthen the development of the creative industry, a collaboration between the government, businesspeople, and academics is needed so that the development targets are in line with what has been targeted. The development of the handicraft industry also needs to get support from the community (Purnamawati, Herliyani, & Agustini, 2019).

Regarding Yogyakarta's craft market, the Chamber of Commerce and Industry of the Special Region of Yogyakarta (Informant 2) explained that Yogyakarta has huge potential in the craft industry, with gloves as their flagship product. The production of gloves has also attracted multinational corporations to invest in the industry and export their goods to the foreign market. The industry is dominated by 50–200 local craftsmen and workers. Moreover, the government has also given grants for capacity building for small and medium-sized industries to expand more into the global market. They received training on product design, marketing, and the export marketing system. The government also arranged specific budgets and strategies for regular exhibitions at local, regional, national, and international levels.

To enter the export market, various efforts were made, such as the development of Kasongan

pottery craft designs. The innovation of Kasongan pottery crafts is supported by various efforts made by the local government in managing business spaces that are conducive to business actors. The opening of foreign cooperation is also a supporting factor for expanding the Kasongan pottery industry market (Susanto, 2012). MSMEs of Yogyakarta's products have reached traditional and non-traditional markets with the help of the Ministry of Trade, the central institution that initiated the Export Coaching Program (ECP). This program is organized by the Export Human Resources and Trade Service Training Center of the Ministry of Trade. This program has helped four of Yogyakarta's MSMEs debut their exports in 2021. The four MSMEs are as follows: (1) CV Ride One Gallery with a total transaction of USD 24,600 to France on antique ceramics; (2) IDR 167,963,482 to Belgium on glass handicraft (specifically two 40-foot high cube containers); (3) PT Bumicharya Utama Luhur with a total transaction of EUR 69,000 to Italy's traditional market on teak flooring; and (4) PT Serena Sejahtera with a total transaction of USD 14,553.

Table 1 shows the countries' destinations for HS-2 commodities that come originally from the province of D.I. Yogyakarta from January to May 2022. The more detailed information in Table 1 is presented in the following section.

Table 1. Shows the countries where HS-2 commodities from Yogyakarta are exported January–May 2022

Desti- nation Country	Unknit- ted Gar- ment (62)	House- hold Lighting Furni- ture (94)	Knitted Goods (61)	Leath- er Goods (42)	Woven Materi- als (46)	Wood, Wood- en Goods (44)	Es- sential Oils, Cosmet- ics, and Perfum- ery (33)	Plastics (39)	Feath- ers (67)	Stone, gyp- sum, and cement- base goods (68)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
United States	40.15	25.29	58.42	61.83	69.99	16.69	0.30	33.41	90.40	28.84
Ger- many	19.66	2.56	3.40	3.23	1.69	3.12	1.91	10.52	0.00	2.46
Japan	9.58	4.72	11.06	4.89	0.23	0.68	0.68	21.11	4.38	0.46
Australia	5.04	16.71	1.05	0.78	2.52	4.24	0.00	5.42	0.00	22.08
Nether- land	1.31	10.67	5.66	1.19	5.03	16.40	5.77	1.00	0.00	10.34
United King- dom	2.92	2.42	10.88	3.58	4.56	1.85	0.81	5.44	0.00	3.33
Austria	0.92	1.25	2.04	16.68	0.19	3.39	0.00	12.12	0.00	0.31
South Korea	0.57	10.14	1.33	0.19	2.28	3.75	19.61	0.55	0.01	4.86
France	0.25	1.56	0.32	0.83	0.04	3.30	37.38	0.15	4.68	0.15
China	10.10	24.61	3.85	6.78	13.46	46.58	33.54	9.24	0.53	27.17
Other										
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Based on the table above, we can see that the United States is Yogyakarta's main HS-2 commodity destination, except for essential oils, cosmetics, and perfumery (HS 33), which are mostly exported to China and France. The most products exported to Germany and Austria are unknitted garments (HS 62); meanwhile, it's plastics for Japan (HS 39), stone, gypsum, and cement-base goods (HS 68) for Australia, wood and wooden goods (HS 44) for the Netherlands, knitted goods (HS 61) for the United Kingdom, and leather goods (HS 42) for South Korea (BPS Provinsi D.I. Yogyakarta, 2022).

The government makes various efforts to encourage the export of local products. One of them is through exhibitions (Pambudi,

2021). Based on an interview with informant 1, Yogyakarta was the host of the sixth Jogja International Furniture and Craft Fair Indonesia (JIFFINA). The event had 200 participants, including MSMEs and consumers from many countries. Other than to promote the local craft and furniture industries, the government expected that local enterprises would use the event as a business opportunity platform to expand into the global market. The fair also facilitated link-and-match between the large-scale industry and small- and medium-scale furniture enterprises as prospective supply chains.

The figures above show that Yogyakarta's craft products are superior commodities for export. Some of the superior products are apparel, knitted

goods, furniture, and home appliances. Moreover, Yogyakarta's craft products attract investors to expand regional industries' reach to the global market. Cooperation with the local craftsmen is one of the efforts made by the investors in the production process.

DISCUSSION

The private sector has a role to play in supporting economic growth. Support for the economy can be seen in the role of the private sector in creating jobs from the businesses carried out. Profit is one of the targets of the private sector in running a business. Internal capital or capital in the form of loans is a source of capital from the private sector (Putra, 2022). This condition is different from that in the public sector. The public sector is a non-profit, government-managed sector; its very existence demonstrates the government's responsibility to provide facilities for people's welfare.

The private sector has a role to play in supporting economic growth. Support for the economy can be seen in the role of the private sector in creating jobs from the businesses carried out. Profit is one of the targets of the private sector in running a business. Internal capital or capital in the form of loans is a source of capital from the private sector (Putra, 2022). This condition is different from that in the public sector. The public sector is a non-profit, government-managed sector; its very existence demonstrates the government's responsibility to provide facilities for people's welfare.

In addition, the private sector also has an essential role in building the national economy and alleviating poverty. The benefits of the private sector include access to infrastructure for people's mobility and various other primary materials, which will later help provide export production along the global value chain (Budiyanti, 2018). Private companies also open job opportunities, increase market competitiveness, and bring local products to the foreign market. Hence, a strong private sector at the national level can export their products to improve the national economy's development, job opportunities, and state income.

In terms of exporting products, a segmentation, targeting, and positioning (STP) strategy is needed to understand the international market. The segmentation strategy aims to group calls based on characteristics and demand. After segmenting, the next strategy is targeting: a decision to target the most suitable market for products owned by export companies. And the last is the positioning strategy, which is a strategy for companies to position their products so that they can have a difference and more value compared to other competitors so that these products can win the competition in the international market (Prastyoko, Fanani, & Mawardi, 2016).

The ability of the private sector to manage its own production gives it a better chance of responding to the challenges and opportunities that affect export performance. The private sector can identify challenges in the market, provide feedback on current technological needs, identify opportunities for added value, and innovate against market change. However, the private sector's condition can also be affected by its support and relations with the government. It will be hard for the private sector to reach its target production if the government doesn't create programs that can support their business performance.

MSMEs are a part of private sector. MSMEs can support Indonesia's economy in critical times. History has shown that the MSMEs strived and supported Indonesia's economy in the 1998 economy crisis (Sarfiyah, Atmaja, & Verawati, 2019). Even Naisbit (1994) predicted that MSMEs will become a dominating sector in world economy, so that countries with strong MSMEs will perform better in the global market competition. To survive the global economy uncertainties, MSMEs need to innovate and make their products sustainably compete in the international market.

The role of the private sector in export is very important. Other than being a business actor, the private sector is also a partner for the government in improving trade performance. The association of private craftsmen in Yogyakarta had brought Indonesia's craft products to the global market. The bamboo craftsmen of Sendari Village have

exported their goods to many countries abroad. The head of the bamboo craftsmen community in Sendari Village (Informant 3) said that:

"Our bamboo crafts are exported to Los Angeles, the United States, the United Kingdom, Norway, Yemen, Malaysia, Australia, and Spain, and the most profitable export goes to France because we have a competent partner there." (10/06/2022)

From that information, we know that France has the most foreign bamboo craft consumers. Informant 3 also explained that France does not have complex business requirements, so they can send large-sized goods like gazebo. France does not demand uniform-size bamboos; this has made export easier since not all bamboos grow to the same size. Other countries require uniform-size bamboos in each crafted product, resulting in higher prices due to the more complex crafting process.

Craftsmen obtained access to the global market by being contacted by foreign buyers and by participating in government-hosted exhibitions. However, more sales are created when they can see their consumers directly. Another interesting finding is that the bamboo craftsmen focus on not only the sales but also community capacity building by hosting bamboo craft and construction training. They give training for Indonesian craftsmen and foreign craftsmen. They have students in Timor Leste and Papua New Guinea. Informant 3 also said that the Covid-19 Pandemic affected their business, so they took a different alternative in promoting their products by using social media. With online promotion, they were able to receive orders during the pandemic.

The private sector has a significant role to play in supporting government programs. One of them is through providing training and coaching. Training and coaching are crucial for business actors entering the export market (Widyantini, 2019). These descriptions show that the private sector has helped expand the market to the global market, both independently and with the help of the government. In its own right, the private sector contacts or is contacted by foreign buyers to sell their products or, in the case of Yogyakarta's

bamboo craftsmen association, to train other foreign craftsmen.

We can also see the role of the private sector in how the Kasongan Village's earthenware did its part in expanding Yogyakarta's craft export. MSMEs in Kasongan consist of both direct and indirect exporters. Most earthenware craftsmen in Kasongan are indirect exporters, meaning they are only suppliers for other exporting companies. Human resources issues and a lack of technology have hindered them from becoming independent exporters, so being a supplier to bigger companies has become a solution for the small-scale Kasongan industries (Ristiyanti & Debora, 2018). One of the obstacles that arise in terms of exports is the lack of understanding of SMEs regarding the requirements that must be known regarding exports (Farransahat & Ma'ruf, 2006), so they choose to sell their products to prominent entrepreneurs. Only a few craftsmen can export their products independently. Many craftsmen have little to no knowledge of doing paperwork for export requirements. This condition has led them to prefer selling their products to bigger and more experienced companies for exports. Dependency on bigger companies can also be found in Bantul Regency. MSMEs' inability to independently export their products matches the testimony of the Sub Coordinator of Business World of the Regional Development Planning Agency of Yogyakarta (Informant 4):

"The problem with Yogyakarta's craft industries is that they are still at the microlevel; they have not reached the medium- and large-scale levels." They have limited capacity for capital expansion, and they are so used to supplying their products to third parties. The most common export pattern in Yogyakarta is for producers to supply their products to item applicators. Those applicators mostly do not come from Yogyakarta. "They're more comfortable supplying the applicators than expanding their own market." (31/05/2022)

This situation has hindered opportunities for micro- and small-scale industries to grow their businesses. Supplying the products to a third party has become customary; many craftsmen or business owners are stuck in their comfort zones.

Hence, they prefer being suppliers to bigger companies and do not feel challenged to expand their business.

Other than human resources and mindset, logistics also become a problem. Transportation costs a fortune when exporting goods from Yogyakarta. Despite having shorelines, Yogyakarta doesn't have its own harbor to transport goods by sea. Currently, most business owners in Yogyakarta transport their goods by land to the nearest harbor, like Tanjung Emas Harbor in Semarang, or to the airport for air cargo (Rasbin, 2019). This is a difficult situation for many exporters in Yogyakarta, especially when they must transport their goods by air. A transportation fee will raise the price of their goods while decreasing their competitiveness. No wonder many craft industries prefer selling their goods to item applicators because local transport is easier than the other foreign alternatives. It is also cheaper for business owners to store their products with the item applicators because the applicators collect goods from various MSMEs up to a certain quota before exporting.

Based on the statement above, we can see that the private sector has a significant role in encouraging Yogyakarta's exports by being an independent exporter or a partner to the government to pave access to the global market. Despite the positive findings, Yogyakarta must address the human resources, mindset, and logistic challenges. It is important to implement practical solutions to these issues to sustainably boost Yogyakarta's exports.

CONCLUSION

The role of the private sector is important in improving Yogyakarta's exports to the international market. Amidst the economic challenges faced by the government, the private sector aids the region by creating market opportunities through product diversification and market expansion into foreign countries. Even during the Covid-19 Pandemic, the private sector was able to strive for the region's economy by working independently and with the government. Market expansion is carried out through participation in various exhibitions

to promote local handicrafts and find new target markets. At the same time, product diversification is carried out by creating products that are unique and adapted to the demands of the market.

However, the craft industry faces numerous challenges, including a lack of technology, a lack of entrepreneurial spirit among business actors, and high-cost transportation logistics. These are the main challenges that Yogyakarta faces in improving its exports. To solve these problems, the government of Yogyakarta may conduct socialization on business management, encourage capacity building on entrepreneurial spirit, and make sure that the supplied goods are not stuck in the harbor. When these are solved, exporting from Yogyakarta is expected to be easier. For further studies, we suggest that researchers focus on the government's efforts to boost Yogyakarta's export performance.

ACKNOWLEDGEMENT

This research is the result of collaboration between UPN Veteran Jakarta and UPN Veteran Yogyakarta researchers. We thank UPN Veteran Jakarta for granting permission to implement independent research. We also thank the information and data provided by resource persons from the Yogyakarta Province and the artisan community.

REFERENCES

- Badan Pusat Statistik Provinsi DI Yogyakarta. (2022). *Perkembangan Ekspor dan Impor Daerah Istimewa Yogyakarta*, Desember 2021. Berita Resmi Statistik No. 12/02/34/Th. XXIV, 2 Februari.
- Bank Indonesia . (2022). *Laporan Perekonomian Daerah Istimewa Yogyakarta Februari 2022*. Retrieved from <https://www.bi.go.id/id/publikasi/laporan/lpp/Documents/Laporan-Perekonomian-DI-Yogyakarta-Februari-2022.pdf>.
- BPS Provinsi D.I. Yogyakarta. (2022, Juli 01). *Perkembangan Ekspor dan Impor Daerah Istimewa Yogyakarta*, Mei 2022. Retrieved from BPS Provinsi D.I. Yogyakarta: <https://yogyakarta.bps.go.id/>

- pressrelease/2022/07/01/1189/perkembangan-ekspor-dan-impor-daerah-istimewa-yogyakarta--mei-2022.html.
- Budiyanti, E. (2018). Strategi Peningkatan Peran Swasta dalam Pembangunan Infrastruktur. Info Singkat: Kajian Singkat Terhadap Isu Aktual dan Strategis, X(04/II).
- Daliman, A. (2000). Peranan Industri Seni Kerajinan Perak di Daerah Istimewa Yogyakarta Sebagai Pendukung Pariwisata Budaya. *Humaniora*, XII(2), 170-180.
- Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu Kabupaten Bantul. (n.d.). Sektor Ekonomi Kreatif. Retrieved from https://dpmppt.bantulkab.go.id/web/potensi_investasi/detail/24-sektor-perindustrian-dan-ekonomi-kreatif.
- Farransahat, M., & Ma'ruf, A. (2006, October). Analisis Hambatan Ekspor Produk Kerajinan Daerah Istimewa Yogyakarta. *JESP*, 7(2), 173-187.
- Firmansyah, H., & Hendra, E. (2015). Implikasi Globalisasi Ekonomi dan Perdagangan Bebas terhadap Stabilitas Nilai Rupiah. *Asy-Syari'ah*, 17(1), 45-54.
- Ilhamuddin, H. M., Rusminah, Hilmiati, H., & Ahyar, M. (2018). Strategi Pengembangan Industri Kreatif Sektor Kerajinan Perhiasan Mutiara di Kota Mataram. *Jurnal Magister Manajemen Universitas Mataram*, 7(1), 58-69.
- Ismianti, Mulyani, Y. P., Halimi, R., & Saputro, O. A. (2019). Integrated Woodencraft Cluster: Program Akselerasi Usaha Kecil dan Menengah (UKM) Go International sebagai Upaya Pemberdayaan UKM Potensial Yogyakarta. *Jurnal OPSI*, 12(2), 59-68.
- Kemendag RI. (2021, September 25). 4 (empat) Pelaku UKM di Yogyakarta, melalui Export Coahing Program, m a m p u menembus pasar ekspor di tengah pandemi 2021. Retrieved from <http://ppejp.kemendag.go.id/2021/09/25/4-empat-pelaku-ukm-di-yogyakarta-melalui-export-coahing-program-mampu-menembus-pasar-ekspor-di-tengah-pandemi-2021/>.
- Kementerian Koordinator Bidang Perekonomian Republik Indonesia. (2021, May 05). UMKM Menjadi Pilar Penting dalam P e r e k o n o m i a n Indonesia. Retrieved from <https://ekon.go.id/publikasi/detail/2969/umkm-menjadi-pilar-penting-dalam-perekonomian-indonesia>.
- Kementerian Perindustrian Republik Indonesia. (2020). Laporan Informasi Industri - Tahun 2020. Jakarta: Kementerian Perindustrian Republik Indonesia.
- Kementerian Perindustrian RI. (2012, November 21). Industri Perak dan Kerajinan Kulit di Kotagede Makin Menggeliat. Retrieved from <https://kemenperin.go.id/artikel/5032/Industri-Perak-dan-Kerajinan-Kulit-diKotagede-Makin-Menggeliat>.
- Munir, R., & Fitanto, B. (2008). Pengembangan Ekonomi Lokal Parsipatif: Masalah, Kebijakan, dan Panduan Pelaksanaan Kegiatan. Jakarta Governance Support Program (LGSP): Local Governance. Naisbit, J. (1994). "Global Paradox" The Bigger the World Economy, The More Powerful It's Smallest Players. New York: William Morrow and Company.
- Ngatikoh, S., & Faqih, A. (2020). Kebijakan Ekspor Impor: Strategi Meningkatkan Pertumbuhan Ekonomi di Indonesia. *LABATILA: Jurnal Ilmu Ekonomi Islam*, 4(1), 68-93.
- Pambudi, A. A. (2021, June). Strategi Diplomasi Ekonomi Indonesia dalam Menghadapi COVID-19. *Jurnal Dinamika Global*, 6(1).
- Pambudy, A. P., & Syairozi, M. I. (2019). Analisis Peran Belanja Modal dan Investasi Swasta Terhadap Pertumbuhan Ekonomi Serta Dampaknya Pada Kesejahteraan Masyarakat. *EKOBIS*, 20(1), 26-39.
- Pemerintah Kota Yogyakarta. (2017). RPJMD Kota Yogyakarta Tahun 2017-2022. Yogyakarta: Pemerintah Kota Yogyakarta.
- Prastyoko, F. B., Fanani, D., & Mawardi, M. K. (2016). Strategi Pemasaran Kerajinan Gerabah Yang Berorientasi Ekspor Pada PT. Lombok Putri Cinderamata. *Jurnal Administrasi Bisnis*

- (JAB), 30(1), 44-51.
- Purnamawati, I. G., Herliyani, E., & Agustini, D. A. (2019). Creative Industry and Opportunity in Export Market. *International Journal of Social Science and Business*, 3(2), 169-179.
- Putra, D. C. (2022). Peran Pemerintah dan Swasta dalam Perekonomian. *J-CEKI : Jurnal Cendekia Ilmiah*, 1(6), 805-808.
- Rachmawati, A. F. (2015). Upaya Pemerintah Daerah dalam Pengembangan Ekonomi Lokal Melalui Pemberdayaan Industri Kecil Menengah (Studi Pada Dinas Perindustrian Perdagangan Dan Pasar Kabupaten Jombang Dan Sentra Industri Kerajinan Cor Kuningan Desa Mojotrisno Kabupaten Jombang. *Jurnal Administrasi Publik Mahasiswa Universitas Brawijaya*, 3(7), 1255-1260.
- Rasbin. (2019). Strategi Meningkatkan Ekspor Produk-produk Usaha Mikro Kecil dan Menengah Indonesia: Studi Kasus di Kabupaten Sleman dan Kota Surabaya. *Kajian*, 24(3), 149-158.
- Ristiyanti, F. R., & Debora, S. T. (2018). Solusi Upgrading terhadap Rantai Nilai Global dalam Industri Kluster Gerabah di Kasongan, Bantul. *Jurnal Transborders* , 1(2), 94-112.
- Sarfiah, S., Atmaja, H., & Verawati, D. (2019). UMKM Sebagai Pilar Membangun Ekonomi Bangsa. *Jurnal REP (Riset Ekonomi Pembangunan)*, 4(1), 137-147.
- Suharson, A. (2020). Strategi UMKM Bantul Merespon Pandemi (Studi Kasus Bidang Kriya/Kerajinan). *Jurnal Riset Daerah* , XX(3), 3661-3675.
- Sukmawati, A. D., & Kurniawan, A. F. (2020). Strategi dan Kebijakan Promosi Batik di Pasar Global. *Jurnal Transformasi Global* , 7(2), 214-234.
- Suparno, Wicaksono, A., & Ariyani, W. (2013). Model Pemberdayaan Usaha Mikro Kecil dan Menengah (UMKM) Melalui Program Corporate Social Responsibility (CSR) pada Industri Rokok di Kudus. *Jurnal Sosial dan Budaya*, 6(2), 29-39.
- Susanto, M. R. (2012). Desain Inovatif Keramik Kasongan Memasuki Persaingan Pasar Global. *Literasi* , 2(2), 139-149.
- Widyantini, R. (2019). Pengaruh Pelatihan dan Pembimbingan Ekspor terhadap Keberhasilan Ekspor Pelaku Usaha Kecil dan Menengah. *Konferensi Nasional Ilmu Administrasi* (pp. 1-5). Bandung: STIA LAN Bandung.
- Widyastuti, N., Abadi, M. T., & Putra, A. P. (2022). Perumusan Konsep Strategi Peningkatan Sentra Industri Oleh-oleh dan Souvenir Sebagai Destinasi Wisata Baru di Daerah Istimewa Yogyakarta. *Fair Value : Jurnal Ilmiah Akuntansi Dan Keuangan*, 4(6).

A large, stylized graphic of musical notation on a curved staff, resembling a globe or a sphere, dominates the right side of the page. The notation includes various notes, stems, and beams, all rendered in black and white. The staff is curved, and the notes are arranged in a way that suggests a global or spherical perspective. The background is a light gray gradient.

Jurnal
MANDIRI^{®™}
ILMU PENGETAHUAN, SENI, DAN TEKNOLOGI

www.jurnalmandiri.com

ISSN : 2580-3220, E-ISSN : 2580-4588
J. Mandiri., Vol. 6, No. 1, Juni 2022 (87 - 98)
©2017 Lembaga Kajian Demokrasi
dan Pemberdayaan Masyarakat (LKD-PM)
DOI: <https://doi.org/10.33753/mandiri.v6i2.212>

The Influence of Dividend Policy and Debt Policy on Company Value at PT Arwana Citramulia Tbk Period 2010-2019

Siti Nur'aidawati

Fakultas Ekonomi dan Bisnis, Universitas Pamulang
dosen01867@unpam.ac.id

Ifa Nurmasari

Fakultas Ekonomi dan Bisnis, Universitas Pamulang
dosen01550@unpam.ac.id

Abstract

This study aims to determine the effect of dividend policy and debt policy on firm value. The method used in this study is a quantitative research method. The population in this study is the financial statements of PT Arwana Citramulia Tbk in 2010-2019. The samples in this study are financial statements, income statements notes to financial statements, and stock price reports. The results of the study show that dividend policy has a significant effect on firm value where the value of t count $|-2.453| > t$ table 2.365 and sig value $0.044 < 0.05$ and debt policy affects the firm value where the value of t count $|-3.821| > t$ table 2.36462 and sig value $0.007 < 0.05$. Meanwhile, simultaneously dividend policy and debt policy have a significant effect on firm value with a value of F count $7.967 > F$ table 4.74 with a sig value of $0.016 < 0.05$. an adjusted R Square value of 60.8% means that the value of the company is influenced by the independent variable and the remaining 39.2% is influenced by other variables not examined in this study.

Keywords: Dividend Policy, Debt Policy, Firm Value

INTRODUCTION

Development of the business world today with increasingly rapid technological developments, it cannot be denied that technological advances have been used in almost every aspect of human life, one of which is in the business world. Companies need to use information technology to manage data sources available within the company. By managing existing data sources with the help of information companies have a large enough opportunity to optimize the company's performance so that the companies can survive, and even excel in an increasingly competitive

business environment. Companies must also be able to manage their resources so that these resources are competent in their respective fields. As well as being able to manage company assets well besides that financial statement analysis can also be used to make decisions about the condition of the company as a whole. The analysis of the company's financial statements is a calculation of ratios to assess the financial condition of the past, present, and future possibilities.

One of them is dividend policy which is one of the factors that affect the value of the company. A dividend policy is one of the returns obtained by

shareholders in investing activities in companies other than capital gains. Dividend policy regarding what decisions will be taken by the company on the profits earned by the company whether it will be distributed to shareholders as dividends or will be retained in the form of retained earnings for investment financing in the future (Astuti, 2004) in (Azhari, 2018:4).

According to (Martono & Harjito, 2014:270) dividend policy is a decision whether the profits earned by the company will be distributed to shareholders as dividends or will be retained in the form of retained earnings to finance investment in the future, while according to Darmawan (2018) dividend policy is a financial management policy in determining the size of the ratio of profits distributed to shareholders in the form of cash dividends, dividend smoothing, stock dividends, or stock splits.

Dividend policy is measured by the Dividend Payout Ratio (DPR). In addition to dividend policy, the indicator that is usually used by investors is debt policy which is one of the factors that affect the value of the company. Debt policy is the company's policy in determining how much the company's funding needs are financed by debt. Debt policy is a company's funding policy whose sources are external to the company. Debt policies are generally used by companies rather than issuing new shares because they are considered safer. Debt policy is closely related to capital structure because debt is one of the compositions in the capital structure (Darmawan, 2012) (Dewi, 2017:31).

The debt policy itself is measured by the Debt to Equity Ratio (DER). According to Kasmir (2018:157) Debt to Equity Ratio is the ratio used to assess debt to equity. This ratio is sought by comparing all current debt with all equity. In

addition, the company is expected to be able to make financial decisions that are carried out appropriately, because every decision taken will affect other financial decisions that have an impact on company value.

Firm value as measured by Price to Book Value (PBV) is the investor's perception of the company's level of success which is often associated with stock price with book value per share. High stock prices make the value of the company also high, and increase market confidence not only in the company's current performance but also in the company's prospects in the future.

Maximizing company value is very important for a company because maximizing company value means maximizing the company's main goal. Increasing the value of the company is an achievement that is by the wishes of the owner because with the increase in the value of the company, the welfare of the owners will also increase.

In this study, PT Arwana Citramulia Tbk was used as the object of research by the author. This research was conducted at PT Arwana Citramulia Tbk which is a public ceramics company listed on the Indonesia Stock Exchange with the stock code "ARNA". As one of the four largest ceramic industries in the building materials market on a national scale, PT Arwana Citramulia Tbk is dedicated to being the best company in the ceramics business by showing creativity and innovation and being able to contribute to the environment and this country. Namely producing ceramic tiles at low costs to serve the lower middle market segment nationally. And this company has been operating since 1995, having an office in Jakarta. The following is a table that shows the financial ratios of PT Arwana Citramulia Tbk for 2010-2019, as follows:

Table 1. Financial ratios of PT Arwana Citramulia Tbk. the year 2010-2019

Year	Dividend Policy (DPR)	Debt Policy (DER)	The Value of The Company (PBV)
2010	0,34	1,10	1,28
2011	0,38	0,72	1,39
2012	0,46	0,55	4,98
2013	0,49	0,48	7,83
2014	0,34	0,38	7,00
2015	0,49	0,60	4,10
2016	0,41	0,63	4,03
2017	0,75	0,56	2,44
2018	0,74	0,51	2,81
2019	0,80	0,53	2,72

Source: www.arwanacitra.com

Based on table 1 above, it can be seen that the dividend payout ratio has the lowest and highest numbers, where the lowest number occurred in 2014 at 0.34 and the highest number occurred in 2019 at

0.80. A company with a high Dividend Payout Ratio low will usually be an option for investors who tend to be interested in capital growth (long-term investment). In contrast, investors who want short-term investments usually prefer to choose companies with high DPR.

In table 1 above, it can be seen that the acquisition of the Debt to Equity Ratio experienced a downward fluctuation trend during 2010-2019. Where the lowest figure in 2014 was 0.38, which means the company can be said to be in good condition because the lower the ratio, the better the company's ability to pay its long-term obligations. And the highest number was in 2010 which was 1.10, meaning that the higher DER indicates the composition of total debt is greater than the total equity, so the greater the impact on the company's burden on creditors, indicating that the company's source of capital is highly dependent on creditors. In addition, the amount of debt borne by the company can reduce the amount of profit received by the company.

Meanwhile, table 1. above shows that the value of the company as measured by Price to Book Value (PBV) has a downward trend during 2010-

2019. Where the lowest number is in 2010 which is worth 1.28 and the highest number is in 2013 which is 7.83%. Because the value of the company is often associated with stock prices, where high stock prices make the value of the company also high and increase market confidence not only in the company's current performance but also in the company's prospects in the future.

The dividend payout ratio determines the amount of profit to be divided in the form of cash dividends and retained earnings as a source of funding. The dividend payout ratio shows the percentage of company profits paid to company shareholders in the form of cash dividends. If the company's retained earnings are an important aspect of dividend policy is determining the appropriate profit allocation between the payment of profit as dividends and retained earnings in the company (Harjito and Martono, 2005) (Dahlia, 2018).

Meanwhile, according to Sunariyah (2003:118) in Dahlia (2018) states that dividends distributed to shareholders can be in the form of: 1. Dividends in the form of money the most frequent distribution of dividends is in the form of money. Shareholders will receive dividends at the rate per share times the number of shares held. 2. Dividends in the form of assets (other than cash and own shares). The dividends distributed are sometimes not in the form of cash

but in the form of assets such as shares of other companies or goods produced by the company that distributes the dividends. Shareholders who receive dividends like this record in their books an amount equal to the market price they receive.

3. Stock Dividend (Stock Dividend). Receipt of dividends in the form of shares from companies that distribute shares is called stock dividends. The shares received are in the form of shares that are the same as those owned or other similar shares.

The factors that influence dividend policy can be identified according to Andinata (2010) in (Jusriani, 2013:33) as follows: 1. Profitability, the main attraction for company owners (Shareholders) and potential investors in a company is profitability. In this context, profitability means the results obtained through the management's efforts on the funds invested by owners and investors. The greater the level of profit or profitability obtained by the company will result in greater dividends being distributed and vice versa. 2. Liquidity, demonstrates the company's ability to meet short-term obligations. The liquidity ratio can be measured by the cash ratio and current ratio. Companies paying dividends require cash outflows, so there must be sufficient liquidity. The higher the liquidity, the more able the company to pay dividends. 3. Investment, the purpose of investment activity is to earn income or return from investment. The income can be in the form of cash receipts and or an increase in investment. Companies with fast development require more funds for the implementation of investments. Funding needs are first met by internal equity, because a lot of funds are allocated for retained earnings, causing the funds to pay dividends to decrease. 4. Financing, this financing is mainly funds obtained from long-term debt plus short-term debt as measured by the leverage ratio. The higher the level of debt, the more funds are available to pay higher dividends, because it will give a positive signal and cause the value of the company to rise.

According to Lestariningsih (2007) in Jusriani (2013:35) dividend payout ratio is the percentage of dividends distributed to shareholders from net

income after tax. The dividend payout ratio is calculated by comparing the dividends divided by the net income obtained and is usually presented in the form of a percentage. A higher dividend payout ratio will benefit investors but from the company's side, it will weaken the internal finances, because it reduces retained earnings. But on the contrary, a smaller dividend payout ratio will harm investors (shareholders) but the company's internal financials will be stronger.

Debt policy is how a company acts in taking steps, and decisions in obtaining funds or company capital obtained either from the issuer of debt securities (bonds), shares, and retained earnings (Santi Herawati 2010:7). Debt policy is closely related to the capital structure because debt is one of the compositions in the capital structure (Darmawan, 2012) in (Dewi, 2017:31).

The company is considered risky if it has a large portion of debt in its capital structure, but on the contrary, if the company uses little or no debt, the company is considered not to take advantage of additional external capital that can improve company operations (Mamduh, 2004) in (Dewi, 2017:32).

According to Modigliani and Miller (1958) in Husnan (2010) that as far as interest payments can be used to reduce taxes, the use of debt provides benefits for company owners. Conversely, at a certain point, the use of debt is not profitable in the event of bankruptcy, and the difference between personal tax and debt. Thus the increase in debt will increase the value of a company, but at a certain point will also decrease the value of company. Debt policy is proxied by DER (Debt to Equity Ratio) which is the ratio used to assess debt to equity. This ratio is sought by comparing all current debt with all equity. According to Kasmir (2018:158), the formula used by DER is as follows.

According to Babu and Jaine (1998) in Hidayat (2013:2), there are four reasons why companies prefer to use debt rather than new shares, namely: The existence of tax benefits on interest payments. Debt issuance transaction costs are cheaper than new share issuance transaction costs. It's easier to get debt funding than stock funding. Management

control is greater for new debt than for new shares. Firm value is the normative goal of financial management (Hunan and Pudjiastuti, 2010). Firm value is an investor's perception of the company's level of success which is closely related to its share price, Sujoko, and Soebiantoro, (2010). Firm value as measured by Price to Book Value (PBV) is the investor's perception of the company's level of success which is often associated with stock price with book value per share. The higher the company's stock price, the higher the company's value. A high company value will increase market confidence not only in the company's performance but also in the prospects for the company's views in the future (Sujoko and Soebiantoro, 2007) (Yulian Bayu Ganar, 2018: 32).

Maximizing company value is very important for a company because maximizing company value means maximizing the company's main goal. Increasing the value of the company is an achievement that is by the wishes of the owners because with the increase in the value of the company, the welfare of the owners will also increase.

There are several definitions and understandings of company value from book sources, namely: 1. According to Sartono (2010: 487), company value is the selling value of a company as an operating business. The existence of excess selling value over the liquidation value is the value of the management organization that runs the company. 2. According to Harmono (2011: 233), company value is the company's performance which is reflected by the stock price formed by the demand and supply of the capital market which reflects the public's assessment of the company's performance. 3. According to Husnan (2000) in (Azhari, 2018: 5) the value of the company is the price of a share that has been circulating in the stock market that must be paid by investors to be able to own a company. The value of the company is also the price that prospective buyers are willing to pay if the company is sold.

Meanwhile, according to Christiawan and Tarigan (2007) in Jusriyani (2013:40), there are four concepts in firm value, namely: 1. The nominal value is the value formally stated in

the articles of association of the company. 2. Market value is the price that occurs from the bargaining process in the stock market. 3. Book value is the value of the company calculated based on accounting concepts. Liquidation value is the sale value of all company assets after deducting all obligations that must be met. The most representative concept for determining the value of a company is the intrinsic concept. 4. Usually the value of the company is often proxied by PBV (Price to Book Values). Where PBV is directly related to sharing price and book value per share. The definition of shares is a sign of participation or ownership of a person or entity in a company or limited liability company. Shares are in the form of a piece of paper which explains that the owner of the paper is the owner of the company that issued the securities (Darmadji and Fakhrudin, 2012:5). And the notion of book value per share (BVPS) suggests that if the company is disbanded at that time with the assumption that all assets can be sold at the same price as the book value or shows the amount of rupiah of company assets that are the rights of each share (Munawir, 2012:85).

The existence of PBV is very important for investors to determine investment strategies in the capital market because through price to book value, investors can predict overvalued or undervalued stocks (Ahmed and Nanda, 2000) (Dahlia, 2018).

Milithia C. A Keintjem, Ivonne S. Sarang, and Joubert B. Maramis (2020) conducted a study entitled "The Effect of Dividend Policy, Debt Policy and Profitability on the Value of Manufacturing Companies Listed on the Indonesia Stock Exchange for the 2015-2017 Period", the results The research shows that dividend policy has a significant effect on firm value, while debt and profitability policies do no significant effect on firm value. Simultaneously dividend policy, debt policy, and profitability do not affect firm value. Jesilia Lomboan and Sri Purwaningsih (2020) conducted a study entitled "The Influence of Investment Decisions, Funding Decisions and Dividend Policy on Firm Value", the results show that investment decisions partially have a

significant positive effect on firm value, while funding decisions and dividend policy does not effect on firm value and simultaneously investment decisions, funding decisions and dividend policy do no effect on firm value.

M. Wahyu Hidayat and Triyonowati (2020) conducted a study entitled "The Influence of Dividend Policy, Debt Policy and Profitability on Firm Value in Food and Beverage Companies Listed on the Indonesia Stock Exchange for the 2014-2018 Period", the results of the study show that simultaneously dividend policy, policy debt, and profitability affect firm value, as well as partially each dividend policy, debt policy, and profitability, affect firm value.

I Made Dharma Putra Utama and I Made Dana (2019) conducted a study entitled "The Effect of Dividends, Debt, and Profitability on Property Firm Value on the IDX for the 2012-2016 period", the results showed that partially and simultaneously dividend policy (DPR), debt policy (DER), profitability (ROE) have a significant effect on firm value.

Edy Sucipto and Bambang Sudiyatno (2018) conducted a study entitled "Profitability, Dividend Policy and Debt Policy Against Firm Value in Manufacturing Companies Listed on the Indonesia Stock Exchange Period 2011-2013", the results show that partial profitability and dividend policy have a significant influence while debt policy does not effect on firm value and simultaneously profitability, dividend policy, and debt policy have an effect to the value of the company.

Yulian Bayu Ganar (2018) conducted a study entitled "The Effect of Dividend Policy and Profitability on the Value of Companies Listed on the Indonesia Stock Exchange for the 2013-2017 period", the results show that profitability (ROA) and dividend policy (DPR) partially affect significant effect on firm value (PBV), while simultaneously profitability (ROA) and dividend policy (DPR) has a significant effect on firm value (PBV).

METHODS

The object used in this research is data in the

form of numbers and analysis using statistics in the form of financial statements regarding dividend policy and debt policy as well as firm value. The data taken is the annual financial report from 2010 to 2019 which has been published through the PT Arwana Citramulia Tbk website, namely www.arwanacitra.com.

The time of research was carried out starting from December 2021 to August 2022. This research was carried out in stages, starting from data collection, data processing, analysis process, and final report preparation.

This research is descriptive associative, which is a form of research using at least two or more variables that are connected. The associative method used is a causal relationship, namely a causal relationship between the independent variable and the dependent variable (Sugiyono, 2016:62). In this case, the independent variable that will be related to the problem to be studied is the Variable X1 Dividend Policy (DPR) and X2 is Debt Policy (DER) in operation this variable is measured by a measurement instrument in the form of a ratio and the variable related to the problem to be studied is Firm Value (Y). The population of this research is the financial statements of PT Arwana Citramulia Tbk. The samples from this study are as follows 1. Statement of Consolidated Balance Sheet or Financial Position of PT Arwana Citramulia Tbk, 2010-2019 Period. 2. Profit/Loss Report of PT Arwana Citramulia Tbk, 2010-2019 Period. 3. Notes on the Financial Statements of PT Arwana Citramulia Tbk, 2010-2019 Period.

The data analysis method is a method used in processing research data to obtain a conclusion. The types of data and hypotheses are decisive in the accuracy of the statistical selection of test tools. Data analysis is an activity after data from all respondents or other data sources is collected. The systematic of the analysis used in this study are as follows: Descriptive statistic analysis, and multiple linear regression analysis. The multiple linear regression equations in this study can be formulated as follows: $Y = a + b_1 X_1 + b_2 X_2 + b$ Where Y = Firm Value, a is constant, b₁, b₂ is regression coefficient, X₁ is dividend policy X₂ is debt policy. The classical assumption test is

performed to find out the condition of the data used in the study. Classical assumption tests are the normality test, multicollinearity test, heteroscedasticity test, and auto-correlation test.

Hypothesis analysis is done to test whether the hypothesis in this study is accepted or rejected. The hypothesis tests used are simultaneous tests (F-test) and partial tests (t-tests). The F test is performed to determine whether all independent variables simultaneously exert a significant effect on dependent variables. A partial Test (Test t) is done by comparing the t count with the t table. The Coefficient of Determination test is used to determine how much the percentage of the influence of independent variables contributes to dependent variables. If the value of the coefficient of determination is close to 1, it means that the independent variable has a major effect on the dependent variable. If the coefficient of determination value gets a result of 0, it means that the independent variable does not affect the dependent variable.

RESULTS

Descriptive statistics research is done to describe or describe the results of variables that have been processed using SPSS (Statistic Product and Service Solution) version 26.0. The data is displayed in table

2. The data used here are from June 2010 to 2019.

Based on the descriptive statistical test table above, it shows that in this study the dividend policy proxied by the DPR (Dividend Payout Ratio) has a maximum value of 0.80 and a minimum value of 0.34 with an average value of 0.5215 and a standard value. deviation that is equal to 0.17588. Meanwhile, the debt policy proxied by DER (Debt to Equity Ratio) has a maximum value of 1.10 and a minimum value of 0.38 with an average value of 0.6051 and a standard deviation value, that is equal to 0.19729. Furthermore, the company value proxied by PBV (Price Book Value) has a maximum value of 7.83 and a minimum value of 1.28 with an average value of 3.8580 and a standard deviation value of 2.21453.

The following are the results of the normality test using SPSS version 26.0 as shown in Figure 1 below:

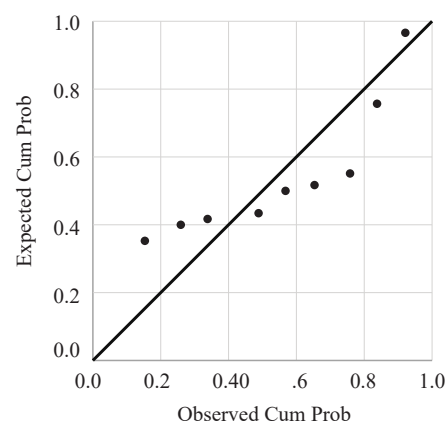


Figure 1. Normality test

Table 2. Descriptive statistics test

	N	Minimum	Maximum	Mean	Std. Deviation
Dividend Policy	10	.34	.80	.5215	.17588
Debt Policy	10	.38	1.10	.6051	.19729
Firm Value	10	1.28	7.83	3.8580	2.21453
Valid N (listwise)	10				

Source: SPSS, 2021

This data meets the classic assumption test. Residualized normal anesthetic, this can be seen from table 3. One Sample KolmogorovSmirnov Test. The value at

Asymp. sig (2-tailed) is 0.093, greater than 0.05.

The results of the Multicollinearity test can be seen in table 3:

Table 3. Normality test

		Unstandardized Residual
N		10
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1.22346529
Most Extreme Differences	Absolute	.244
	Positive	.240
	Negative	-.244
Test Statistic		.244
Asymp. Sig. (2-tailed)		.093 ^c

a. Test distribution is Normal.

b. Calculated from date

c. Lilliefors Significance Correction.

Source: SPSS, 2021

Table 4. Multicollinearity test

		Unstandardized Coefficients	Standardized Coefficients		Collinearity Statistics					
			B	Beta	t	Sig.	Tolerance	VIF	Mean	Std. Deviation
1	(Constant)	13.274	2.505		5.299	.001				.17588
	Devidend	10	.38				1.10	.6051		.19729
	Policy Debt	-6.915	2.819	-.549	-2.453	.044	.870	1.149		2.21453
	Policy	-9.602	2.513	-.855	-3.821	.007	.870	1.149		

a. Dependent Variable: Firm Value

Source: SPSS, 2021

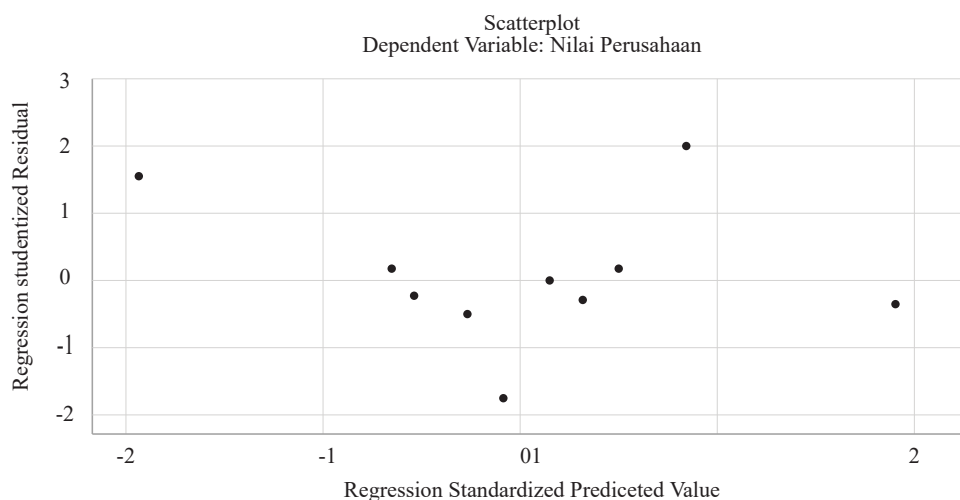


Figure 2. Heteroscedasticity test

Table 5. Autocorrelation test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin Watson
1	.834	.695	.608	1.38728	2.332

a

a. Predictors: (Constant), Debt Policy, Dividend Policy

b. Dependent Variable: Firm Value

Source: SPSS, 2021

Table 4. Multicollinearity test

		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
		B	Std. Error	Beta	t	Sig.	Tolerance	V
1	(Constant)	13.274	2.505		5.299	.001		
	Devidend Policy	-6.915	2.819	-.549	-2.453	.044	.870	1.149
	Debt Policy	-9.602	2.513	-.855	-3.821	.007	.870	1.149

a. Dependent Variable: Firm Value

Source: SPSS, 2021

Table 7. Durbin-Watson test and coefficient of determination

Model Summary^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	.834 ^a	.695	.608	1.38728	2.332

a. Predictors: (Constant), Debt Policy, Dividend Policy

b. Dependent Variable: Firm Value

Source: SPSS, 2021

Based on the results of the heteroscedasticity test can be seen in Figure 2 using the Scatter-plot test. Detection of the presence or absence of heteroscedasticity can be done by looking at the presence or absence of certain patterns on the scatter-plot graph between SRESID and ZPRED. In the picture above, it can be seen that the points have spread above and below zero on the Y axis and there is no particular pattern. Thus in this model there are no symptoms or there is no heteroscedasticity. For auto-correlation, test results can be seen in table 7. Durbin-Watson.

The result of the auto-correlation test on the Durbin-Watson value is 2,332. This value will be compared with the value of the Durbin-Watson table with data (n) = 10, the number of independent variables (k) = 2 and the significant level is 5% or 0.05. Where is the Durbin-Watson DL value (outer limit) = 0.6972 and DU (inner limit) = 1.6413, the condition is said to pass auto-correlation if the DU value is less than the DW value and less than 4-du (DU < DW < 4-DU). The results of the auto-correlation test in this study were DU = 1.6413, DW = 2.332 and 4-DU = 4-1.6413 = 2.3587. Then found 1.6413 < 2.332 < 2.3587, so it can be concluded that the auto-correlation test data in accordance with the criteria (DU < DW < 4-DU) so in this case the result of the null hypothesis is that there is no positive or negative auto-correlation with the decision not being rejected.

Based on the table 7 of the multiple regression equation obtained : $Y = 13.274 - 6.915X_1 - 9.602X_2$, it is known that the constant of 13,274 means that if all the independent variables, namely dividend policy and debt policy, are equal to zero, then the value of the company will be 13,274. The dividend policy coefficient is -6.915,

meaning that for every 1% addition to the dividend policy, the firm value will decrease by 6.915. The coefficient of debt policy is -9.602, meaning that for every 1% addition of debt policy, the value of the company will decrease by 9.602. To test the simultaneous variables of free variables on bound variables can be seen in table 9. The results of the F test showed a calculated F value of 7.967, with a table F value of 4.74 and a significance value of $0.016 < 0.05$.

Based on these results obtained by dividend policy and debt policy have a significant effect simultaneously on Firm value. Based on the Determination Coefficient test in table 8, the R Square value of 0.608 or 60.8% can be interpreted so that the percentage of independent variable contribution in the form of dividend policy and debt policy that affect the dependent variables of on firm value is 60.8% while the remaining 39,2% is influenced by other variables not studied in this research model.

DISCUSSION

The result shows that dividend policy has a value of $|t\text{-count}| > t\text{-table}$ that is $| -2.453 | > 2.36462$ and sig. is $0.044 < 0.05$ so H_0 is rejected. So there is an influence between dividend policy on firm value. According to the t-test is used to test the significance or significance of the partial regression coefficient. Testing through the t-test is by comparing the t-count with the t-table at the real level $\alpha = 0.05$. The t-test has a positive and significant effect if the results of the calculation of $t\text{-count} > t\text{-table}$, then H_0 is rejected and H_A is accepted, meaning that there is a significant influence between each of the independent variables and the dependent variable or the probability of error is less than 5% ($P < 0,05$).

This is in line with research conducted by Yulian (2018) which shows that dividend policy has an effect on firm value. Meanwhile, according to Azhari (2018), it shows that the dividend policy measured by the DPR partially has no effect on firm value.

The debt policy variable has a value of $|t\text{-count}| > t\text{-table}$ that is $|-3.821| > 2.36462$ and sig. is $0.007 < 0.05$ so H_0 is rejected. So there is an influence between debt policy on firm value. This is in line with research conducted by Azhari (2018) which shows that debt policy has an effect on firm value. Meanwhile, according to Milithya (2020) which shows that the debt policy as measured by DER partially has no effect on firm value.

on firm value. Dividend policy and debt policy each has a negative effect on firm value, while dividend policy and debt policy negatively affect firm value. Variable dividend policy and debt policy affect firm value of 60.8%.

Based on the research that has been done, there are several suggestions that can be considered included the company should always be committed to realizing optimal company performance, where one of the final reflections of good performance is the distribution of dividends to shareholders, more consistent in maintaining debt payments as indicated by the debt to equity ratio. The company value should always be stable, so that the company's success

Table 7. Durbin-Watson test and coefficient of determination

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30.665	2	15.333	7.967	.016b
	Residual	13.472	7	1.925		
	Total	44.137	9			

a. Dependent Variable: Firm Value

b. Predictors: (Constant), Debt Policy, Dividend Policy

Source: SPSS, 2021

Based on F test results showed dividend policy and debt policy variables on firm value have a value of $F_{count} > F_{table}$ value, which is $7.967 > 4.74$ and a sig value of $0.016 < 0.05$, thus H_0 is rejected, so it can be concluded that dividend policy and debt policy have a simultaneous effect on firm value. F test is basically intended to prove statistically that all independent variables have an overall effect on the dependent variable. So if $F\text{-count} > F\text{-table}$, then H_0 is rejected and H_A is accepted, meaning that there is a significant influence between the independent variable (X) together with the dependent variable (Y).

CONCLUSION

Based on the results of research that has been conducted on dividend policy variables, and debt policy against firm value, it can be concluded that both partially and simultaneously, dividend policy variables, and debt policy have a significant effect

rate increases and becomes an achievement in accordance with the wishes of the owners. For further research, it is expected to add the number of independent variables used to determine what factors can affect the value of the company and can increase the research period.

ACKNOWLEDGEMENT

In accordance with the publishing of Jurnal MANDIRI Vol. 6, No. 2, December 2022, we would like to take this opportunity to thank you for your effort and expertise as a reviewer. Your help enabled us to meet the scheduled time and to maintain the standards of peer-reviewed journals. Your dedication is most appreciated as the number of manuscripts is increasing every year reviewers.

REFERENCES

Apriwenni, R. D. (2017). Dampak Perencanaan Pajak, Kebijakan Hutang dan Kebijakan

- Dividen Terhadap Nilai Perusahaan. *Jurnal Akuntansi*, 6(1), 47- 67.
- Azhari. (2018). Pengaruh Kebijakan Dividen, Kebijakan Hutang dan Profitabilitas Terhadap Nilai Perusahaan Manufaktur Sektor Pertambangan Yang Terdaftar Di Bursa Efek Indonesia Periode 2009-2014. *JOM FISIP*, 5(1), 1-18.
- Dahela. (2019). Pengaruh Tax Planning, Kebijakan Hutang dan Kebijakan Dividen Terhadap Nilai Perusahaan (Studi Kasus Pada Perusahaan Food and Beverage Yang Terdaftar Di Bursa Efek Indonesia Periode 2011-2016. *ePrint UNPAM*, 10-38.
- Dana, I. M. (2019). Pengaruh Dividen, Utang dan Profitabilitas Terhadap Nilai Perusahaan Properti Di Bursa Efek Indonesia (BEI). *E-Jurnal Manajemen*, 8(8), 4927-4956.
- Ganar, Y. B. (2018). Pengaruh Kebijakan Dividen dan Profitabilitas Terhadap Nilai Perusahaan Pada Perusahaan Yang Terdaftar Di Bursa Efek Indonesia Periode 2013-2017. *Jurnal Sekuritas*, 2(1), 32-44.
- Ghozali, I. (2016). Aplikasi Analisis Multivariate Dengan Program IBM SPSS 23. Edisi Kedelapan. Semarang: Badan Penerbit Universitas Diponegoro.
- Jusriani, I. F. (2013). Analisis Pengaruh Profitabilitas, Kebijakan Dividen, Kebijakan Hutang dan Kepemilikan Manajerial Terhadap Nilai Perusahaan (Studi Empiris Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Periode 2009-2011. *Diponegoro Journal of Accounting*, 2/2, 1- 10.
- Kasmir. (2018). Analisis Laporan Keuangan. Cetakan Kedelapan. Jakarta: PT Raja Grafindo Persada.
- Hidayat, W. (2020). Pengaruh Kebijakan Dividen, Kebijakan Hutangan dan Profitabilitas Terhadap Nilai Perusahaan. *Jurnal Ilmu dan Riset Manajemen*, 9(3), 1-16.
- Milithya C.A Keintjem, I. S. (2020). Pengaruh Kebijakan Dividen, Kebijakan Hutang dan Profitabilitas Terhadap Nilai Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Periode 2015- 2017. *Jurnal EMBA*, 8(4), 448-456.
- Nurwita. (2019). Pengaruh Rasio Hutang, Struktur Kepemimpinan, Suku Bunga, Inflasi dan Profitabilitas Terhadap Price Earning Ratio Pada Perusahaan LQQ - 45 Periode 2011-2014. *Jurnal Ilmiah Semarak*, 2 (3), 141-160.
- Purnama, H. (2016). Pengaruh Profitabilitas, Kebijakan Hutang, Kebijakan Dividen dan Keputusan Investasi Terhadap Nilai Perusahaan (Studi Kasus Perusahaan Manufaktur Yang Go Publik Di Bursa Efek Indonesia Periode 2010-2014). *Jurnal Akuntansi*, 4(1), 11-21.
- Purwaningsih, J. d. (2020). Pengaruh Keputusan Investasi, Keputusan Pendanaan dan Kebijakan Dividen Terhadap Nilai Perusahaan (Studi Pada Perusahaan Sektor Barang Konsumsi Yang Terdaftar Di Bursa Efek Indonesia Periode 2014-2017). *Profita: Komunikasi Ilmiah Akuntansi dan Perpajakan*, 13(1), 157-164.
- Sofia, D. M. (2017). Pengaruh Kebijakan Dividen, Kebijakan Hutang Dan Keputusan Investasi Terhadap Nilai Perusahaan Pada Sub Sektor Perdagangan Besar Yang Terdaftar Di Bursa Efek Indonesia Periode 2010-2014. *JOM FISIP*, 4/2, 1-15.
- Sudiyanto, E. S. (2018). Profitabilitas, Kebijakan Dividen dan Kebijakan Hutang Terhadap Nilai Perusahaan Pada Perusahaan Manufaktur Yang Listed Di Bursa Efek Indonesia. *Dinamika Akuntansi, Keuangan dan Perbankan*, 7(2), 163-172.
- Sugiyono. (2017). Metode Penelitian Kuantitatif, Kualitatif dan R&D. Bandung: Alfabeta.

A large, stylized graphic of musical notation on a curved staff, resembling a globe or a sphere, dominates the right side of the page. The notation consists of various notes, stems, and beams, all rendered in black and white, creating a sense of movement and rhythm. The staff curves from the top right towards the bottom left, following the contour of the globe.

Jurnal
MANDIRI^{®™}
ILMU PENGETAHUAN, SENI, DAN TEKNOLOGI

www.jurnalmandiri.com

ISSN : 2580-3220, E-ISSN : 2580-4588
J. Mandiri., Vol. 6, No. 2, Desember 2022 (99 - 115)
©2017 Lembaga Kajian Demokrasi
dan Pemberdayaan Masyarakat (LKD-PM)
DOI: <https://doi.org/10.33753/mandiri.v6i2.215>



Customer Satisfaction and Loyalty Management of Bank Sahabat Sampoerna Branch Kelapa Gading

Wahid Akbar Basudani

Fakultas Ekonomi dan Bisnis, Universitas Nusa Mandiri
wahidakbarbasudani@gmail.com

Valentine Theresia Simamora

Fakultas Ekonomi dan Bisnis, Universitas Nusa Mandiri
valentinetheresia14@gmail.com

Gani Wiharso

Fakultas Ekonomi dan Bisnis, Universitas Nusa Mandiri
gani.gwr@nusamandiri.ac.id

Muhammad Abdullah

Fakultas Ekonomi dan Bisnis, Universitas Nusa Mandiri
muhammadabdullahlecturer@gmail.com

Hary Mulyadi

Fakultas Ekonomi dan Bisnis, Universitas Nusa Mandiri
hari.mulyadi80@gmail.com

Abstract

The purpose of this study is to determine whether there is an effect of service quality, customer motivation and customer behavior on customer satisfaction with customer complaints as moderation and its impact on customer loyalty at Bank Sahabat Sampoerna Branch Kelapa Gading. This study uses the SEM method with the Smart-PLS application. The number of samples in this study amounted to 52 with the sampling technique of accidental sampling which is included in the type of non-probability sampling where the object in this study is the customer who uses credit facilities at Bank Sahabat Sampoerna Branch Kelapa Gading. The results of this study obtained the endogenous variable Customer Satisfaction (Y) of 0.98 and Customer Loyalty (Z) of 0.97. This indicates that the endogenous latent variable Customer Satisfaction (Y) is strongly influenced by the exogenous variables of Service Quality (X1), Customer Motivation (X2) and Customer Behavior (X3). Meanwhile, the endogenous latent variable of Customer Loyalty (Z) is strongly influenced by 0.97 by the exogenous variables of Service Quality (X1), Customer Motivation (X2) and Customer Behavior (X3) through the mediating variable of Customer Satisfaction (Y).

Keywords: Customer Satisfaction, Customer Loyalty, Service Quality, Customer Motivation, Customer Behavior

INTRODUCTION

Disruption of technology has brought intense competition in the industrial world, including the banking industry, both at home and abroad. In the industrial era 4.0 where the development of digitalization accelerates rapidly, many non-bank financial institutions have emerged which are popularly called fintech (financial technology). Fintech can replace banking functions as financial sector services (providers of funds or providers of capital) on easier and more efficient terms (Miswan, 2019). One of the banking services, namely channeling funds to the community, is one of the target markets of fintech institutions. In Figure 1, it can be seen that in September 2022 the Financial Services Authority (OJK) reported the number of fintech lending loans of 19.49 trillion rupiah, where this value was an increase of 1.41% compared to the previous month in August 2022.

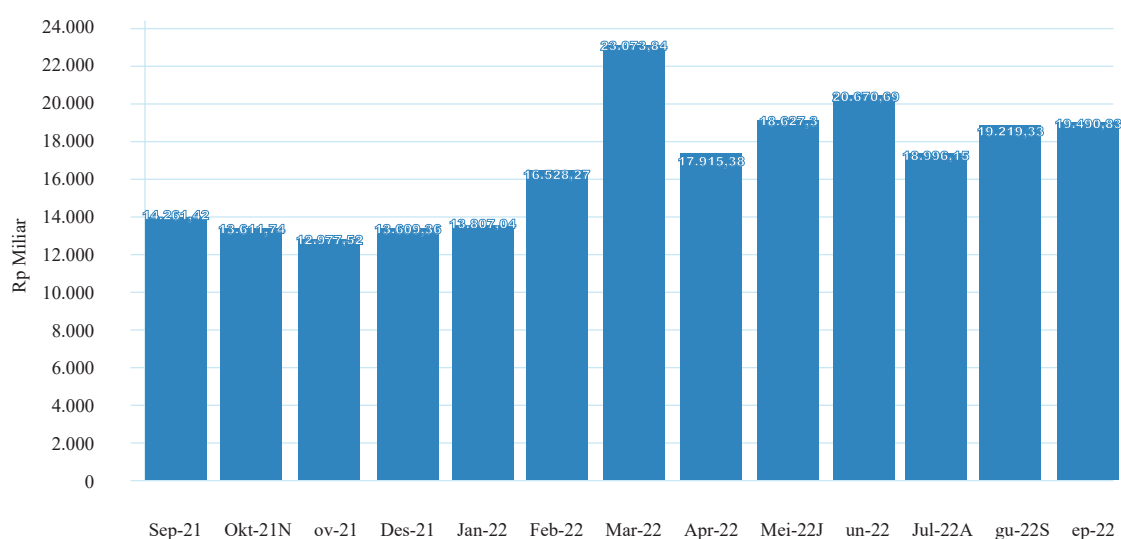


Figure 1. Graph of fintech lending loans in Indonesia

Source: Otoritas Jasa Keuangan

When compared to the previous year, the number of fintech lending in September 2022 was 36.67% higher than September 2021, where the value of lending was Rp. 14.26 trillion. If you look at the amount of lending to the productive sector, the figure will reach Rp. 9.32 trillion in September 2022, where this amount reaches 47.83% of the total distribution of fintech lending loans. Meanwhile, the productive sectors that received the largest fintech lending loans were wholesale and retail trade, repairs, and car and motorcycle maintenance amounting to Rp3.26

trillion, followed by the accommodation and food and beverage sector of Rp1.23 trillion (Rizaty, 2022).

Meanwhile, in the banking sector, BI Governor Perry Warjiyo said that credit growth in September 2022 was 11.00% year on year. (Walfajri, 2022). Despite the growth of credit in banking institutions and fintech institutions, the credit product market which was originally controlled by banking institutions is slowly being divided into fintech institutions.

This of course urges banking institutions to concentrate on fulfilling customer satisfaction and building loyalty from these customers. By maintaining the loyalty of its customers, banks do not have to worry about the customer changing their trust in terms of applying for credit to fintech institutions. One of the banks in Indonesia that is surviving the onslaught of the industrial

disruption era 4.0 is the Sahabat Sampoerna bank. Bank Sahabat Sampoerna is a financial institution that is well known by some Indonesians. This bank has been established since 1990 which later changed its name to Bank Sahabat Sampoerna in 2011. Bank Sahabat Sampoerna has a focus on providing credit to small and medium enterprises, often referred to as SME (Small Medium Enterprise). Business actors from the level of small and medium companies mostly use the credit services provided by the Sahabat Sampoerna bank.

There are many things that need to be a concern for banks in the midst of the disruption of the industrial era 4.0 so that their customers continue to use their banking services, one way to retain their customers is to pay attention to service quality. Quality of service is very much needed by providing and fulfilling facilities and responses according to customer wishes (Andriyani & Ardianto, 2020). The quality of services contained in a bank can be the basis of customer satisfaction, a banking operator is said to have high value for its customers when it is able to provide quality, benefits and minimal sacrifices (Mawey et al, 2018).

Bank Sahabat Sampoerna strives to provide the best service quality for its customers, especially in providing credit services so that their customers get satisfaction from the services they provide and become loyal customers in using their services. The quality of services implemented by the bank affects the satisfaction of the bank's customers (Sigit & Soliha, 2017). Then the better the quality of services provided by the bank to its customers, the customer satisfaction will increase. This is also in accordance with research conducted by Oetama and Sari (2017) that service quality affects customer satisfaction partially and simultaneously. Sangadji & Sopiah (2013) stated that quality has a close relationship with customer satisfaction, where quality provides an impetus to customers to establish strong bonds with the company. In addition to influencing customer satisfaction, service quality also affects customer loyalty. Service quality has a positive and significant influence on customer loyalty (Zulkarnain et al, 2020).

Banks also need to understand the motivations of their customers in order to provide products and services that suit their needs so as to create satisfaction for their customers. Motivation is a state of individual personality that facilitates the individual's desire to carry out a certain activity in order to achieve a goal (Rahayu et al., 2021). Customer motivation is considered to be an important aspect in applying for credit by Bank Sahabat Sampoerna, because this bank has a credit product that is given to customers who are

just starting a business where other banks usually provide credit to customers whose businesses are already running.

Sangadji & Sopiah (2013) stated that customer motivation is an impulse that moves consumers or customers to decide to act towards achieving goals, namely meeting various needs and desires. Setiadi in Sangadji & Sopiah (2013) states the principles of motivation are: a) The principle of inclusion, b) Communication principle, c) Principle of confession, d) The principle of delegated authority and e) The principle of reciprocal attention. Customer motivation is one of the things that Bank Sahabat Sampoerna pays attention to to maintain customer satisfaction and loyalty. Customer motivation is an act that is moved to be done in order to obtain satisfaction when achieving certain goals carried out by groups or people in the form of business or action (Nina & Pratama, 2021). Previous research that examines customer motivation that affects customer satisfaction and loyalty has not been widely studied so that this will be useful for management science, especially in the field of banking marketing.

In addition to the motivation of its customers in using products and services, banks are considered necessary to know the behavior of their customers. The interest or disinterest of a financial institution or bank is highly dependent on psychological factors concerning aspects of the behavior, attitudes and tastes of customers (Tionardi, 2018). Customer behavior refers to the behavior of individuals when buying and using goods and services. In essence, consumer or customer behavior includes mental and physical activities related to stopping obtaining, consuming, and using certain products, services, ideas, and experiences (Adhitya, 2019).

Bank Sahabat Sampoerna also pays attention to the behavior of its customers in providing credit. This customer behavior is important to assess so that Bank Sahabat Sampoerna can find out whether this customer has good intentions to cooperate in the long term or vice versa. Banks must have links to their customers' transaction activities, such as names, addresses, and other

contact details. From there, banks can record traces of their customers' behavior (Aditya, 2019). According to Solomon, consumer or customer behavior is the processes that occur when a person or group chooses, buys, uses, or discontinues the use of products, services, ideas or experiences to satisfy certain needs and desires (Tjiptono, 2019).

More specifically, the study of customer behavior covers several things (Suryani, 2017), including: a) What customers need and want When choosing a bank, banking products and services, b) When do customers use banking services, c) How customers use banking products and services, d) Why customers are interested and take advantage of banking services, e) Who is involved in the customer decision-making process in choosing a bank and f) Where is the location of the bank that customers prefer. Customer behavior is one of the assessment criteria that is considered by Bank Sahabat Sampoerna in maintaining customer satisfaction and loyalty. Unfortunately, there are not many studies that link customer behavior to customer satisfaction and loyalty, so it is hoped that this research will be a renewal of research in the field of banking marketing management in the future that examines the influence of customer behavior on customer satisfaction and loyalty.

Complaints or customer complaints are also often a determining factor for customers regarding satisfaction and loyalty from customers so that they need good handling. Customers who are dissatisfied, including post-purchase, can be indicated by repeat purchase behavior, while customers who are dissatisfied can be indicated by complaints (Sanjayawati, 2019). Complaint handling is conceptually believed to be able to create customer loyalty (Herawati & Sulistyowati, 2019).

Bank Sahabat Sampoerna has a special department in handling complaints from its customers to avoid customer dissatisfaction. Customer or customer complaints are emotional expressions because there may be several things that are unacceptable, each related to the goods provided and services (Sangadji & Sopiah, 2013). Handling customer complaints is the company's ability to prevent potential complaints, resolve

them in a timely manner before they become problems and discuss solutions openly when problems occur (Lay, 2019). There are five aspects that need to be observed so that complaints can be handled and turned into opportunities to better satisfy customers (Tjiptono, 2019), including: a) Make it easy for customers to submit complaints, b) Overcoming the factors of the occurrence of complaints, c) Handling complaints effectively, d) Dealing with angry customers and e) Learn from mistakes and fix them. Implementation and satisfaction results are determined from the implementation and results of handling complaints (Rosita & Indrawijaya, 2015).

This can be interpreted that the handling of customer complaints has an effect on customer satisfaction. Handling customer complaints also has a significant positive effect on customer loyalty through satisfaction (Putri et al, 2021). Previous research which states that the handling of customer complaints to be a moderating variable is not found in previous research studies. This is a new study which is expected to be a reference for future studies to examine the moderating effect on the variable of handling customer complaints.

Customer satisfaction or dissatisfaction is the result of the customer's assessment of what he expects from a product or service with what is felt or received from the product or service (Lay, 2019). Banks must always strive to improve customer satisfaction in order to maintain their loyalty. When marketers fail to meet customer needs and wants, or fail to meet customer satisfaction, customers can switch to competing products (Setianingsih et al., 2019). Customer loyalty is influenced by several factors where one of the influencing factors is customer satisfaction (Utama & Murti, 2021). It can be said that a bank will get loyalty from its customers if the bank is able to meet the satisfaction of its customers. Kotler (2005) states that customer or customer satisfaction is a person's feeling of pleasure or disappointment that arises after comparing the expected product performance (results) to the expected performance (Atmaja, 2018).

In general, customer satisfaction programs include a combination of 7 main elements

(Tjiptono, 2019), including: a) Quality goods and services, b) Relationship Marketing, c) Loyalty promotion program, d) Focus on the best customers, e) Effective complaint handling system, f) Unconditional guarantees and g. Pay Performance Program. Many factors affect customer satisfaction in several studies conducted. Customer satisfaction will be influenced by three variables where the better the product quality, the better the service quality, the better the level of trust and the higher customer satisfaction (Setiawan et al, 2016). Customer satisfaction can provide a partial and significant mediating effect or as an intervening variable in the effect of service quality on customer loyalty where the effect is positive and significant (Apriyanti et al, 2017). Through this research, it can be said that customer satisfaction can be an intervening variable in the concept of SEM analysis that mediates exogenous and endogenous variables. It is unfortunate that there is no research that states that customer satisfaction mediates or acts as an intervening variable between customer motivation and customer behavior towards customer loyalty, so researchers hope that this research can be a reference for future research.

Customer satisfaction and customer loyalty are two interrelated things (Utama & Murti, 2021). Customer loyalty is a condition that is expected by every company, especially banking service companies. The high level of customer loyalty can indicate the success of a bank in running the company in order to achieve its goals (Harahap & Amanah, 2019). Customer loyalty is a final thing that needs to be achieved by banking institutions considering the intense competition in the banking industry itself and the presence of non-bank financial institutions such as fintech. With the acquisition of loyalty, the bank can retain its customers. Customer loyalty has an important role in creating and maintaining a competitive advantage in the service industry. There are economic advantages associated with retaining loyal customers compared to recruiting new customers (Setiawan, 2019).

Bank Sahabat Sampoerna continues to strive to build loyalty from its customers. Loyal customers

will extend their credit every year. Parasuraman defines customer or customer loyalty in the context of marketing services as a reaction that is sincerely associated with a pledge or promise to uphold the dedication that underlies the continuity of the relationship, and is generally intended in non-stop purchases from equal operator publishers. on the premise of pragmatic will and constraints (Sangadji & Sopiah, 2013). Griffin revealed that loyal consumers have 4 characteristics (Sangadji & Sopiah, 2013), including: a) Say positive things about the company to others, b) Recommending the company to others asking for advice, c) Considering that the company is the first choice when purchasing services, d) Do more business or purchases with the company in the coming years. Loyalty is influenced by customer satisfaction, the higher the level of customer satisfaction, the greater the level of customer loyalty (Setiawan et al, 2016). Sangadji & Sopiah (2013) revealed that customer or customer satisfaction will create loyalty or loyalty to companies that provide satisfactory quality.

Bank Sahabat Sampoerna pays attention to the behavior and motivation of its customers as well as internal factors such as service quality and customer complaint handling. Customer motivation and behavior is an important assessment according to Bank Sahabat Sampoerna because they provide business loans in a different way from other banks where other banks will provide credit if the customer already has a running business. In contrast to Bank Sahabat Sampoerna which can provide credit to customers who are just starting their business. Bank Sahabat Sampoerna believes that an assessment of the motivation and behavior of its customers coupled with providing the best service quality and handling customer complaints will create customer satisfaction and loyalty. This research will test whether the things that are considered and believed by Bank Sahabat Sampoerna can affect the satisfaction and loyalty of its customers. Based on the description above, the problem in this study is whether there is an influence of service quality, customer motivation, customer behavior and handling of customer complaints

implemented by Bank Sahabat Sampoerna on customer satisfaction and its impact on customer loyalty.

The purpose of this study is to determine whether there is an effect of service quality, customer motivation and customer behavior on customer satisfaction with customer complaints as moderation and its impact on customer loyalty at Bank Sahabat Sampoerna Branch Kelapa Gading. The purpose of this research is to broaden the horizons of thinking and increase knowledge as well as to become recommendations for formulating company strategies in terms of customer satisfaction and loyalty.

We have encountered many studies on customer satisfaction and loyalty in previous studies, therefore to maintain originality, this study uses intervening variables and mediating variables. Customer satisfaction is an intervening variable or a link to customer loyalty and handling customer complaints is a mediating variable.

METHODS

This research is a quantitative research conducted in a span of 3 months, from July to September 2022. This study uses a quantitative analysis approach with the Structural Equational Model (SEM) method. Respondents filled out questionnaires distributed using google forms

which were then analyzed using the Smart PLS (Partial Least Square) tool version 3.1.9. This research data is primary data taken by distributing questionnaires to several customers of Bank Sahabat Sampoerna Branch Kelapa Gading. The population in this study amounted to 82 customers where they were customers who had taken small and medium business loans at Bank Sahabat Sampoerna Kelapa Gading Branch which was managed by the 2 bank marketers. The sampling technique used in this study is accidental sampling which is included in the type of non-probability sampling. There are 52 customers who have used credit products at Bank Sahabat Sampoerna Branch Kelapa Gading who were met during the research implementation and became the sample in this study.

The variables used in this study are exogenous variables consisting of service quality (X1), customer motivation (X2) and customer behavior (X3). The endogenous variables used in this study are Customer Satisfaction (Y) and Customer Loyalty (Z). This study uses a mediating variable, namely the Customer Satisfaction variable (Y) and this study also uses a moderator variable, namely the Handling of Customer Complaints (M). The hypothesis used in this study is a research framework using Structural Equational Model analysis which can be described in Figure 2 as follows:

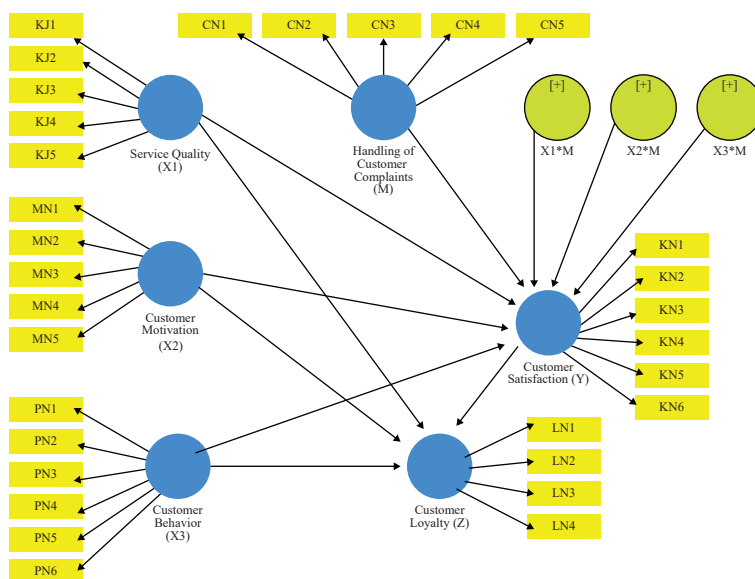


Figure 2. PLS SEM modeling
 Source: Smart-PLS data processor (2022)

Based on the framework of thought above and the discussion in the background of the study, the hypothesis in this study was obtained: H1: service quality has a positive and significant effect on customer satisfaction, H2: customer motivation has a positive and significant effect on customer satisfaction, H3: customer behavior has a positive and significant effect on satisfaction customer, H4: handling customer complaints has a positive and significant effect on customer satisfaction, H5: handling customer complaints has a moderating effect on service quality and has a positive and significant effect on customer satisfaction, H6: handling customer complaints has a moderating effect on customer motivation and has a positive and significant effect on customer satisfaction, H7: handling customer complaints has a moderating effect on customer behavior and has a positive and significant effect on customer satisfaction, H8: service quality has a positive and significant effect on customer loyalty, H9: customer motivation has a positive

and significant effect on customer loyalty, H10: customer behavior has a positive and significant effect on customer loyalty, H11: customer satisfaction has a positive and significant effect on customer loyalty, H12: service quality has a positive and significant indirect effect through customer satisfaction on customer loyalty, H13: customer motivation has a positive and significant indirect effect through customer satisfaction on customer loyalty and H14: customer behavior has a positive and significant indirect effect through customer satisfaction on customer loyalty.

RESULTS

Measurement model

The evaluation of the model in PLS-SEM using the Smart PLS program can be done by assessing the results of the measurement model (measurement model), namely through confirmatory factor analysis (CFA) by testing the validity and reliability of latent constructs (Ghozali, 2021).

Table 1. Outer loading

	(Y)	(X1)	(Z)	(X2)	(M)	(X3)	X1*M	X2*M	X3*M
CN1					0.81				
CN2					0.80				
CN3					0.83				
CN4					0.80				
CN5									
KJ1	0.96			0.71					
KJ2		0.88							
KJ3		0.93							
KJ4		0.93							
KJ5									
KN1	0.96	0.93							
KN2	0.93								
KN3	0.96								
KN4	0.95								
KN5	0.92								
KN6	0.93								
(X1)*(M)									
LN1	0.96				0.78				
LN2			0.97						
LN3			0.97						

LN4		0.97	
MN1	0.94		
MN2		0.95	
MN3		0.95	
MN4		0.90	
MN5		0.97	
(X2)*(M)	0.81		
PN1			0.92
PN2			0.96
PN3			0.95
PN4			0.92
PN5			0,95
PN6			0,93
(X3)*(M)			0,84

Source: Smart-PLS data processor (2022)

The rule of thumb used to assess convergent validity is that the loading factor value must be more than 0.7 for confirmatory research (Ghozali, 2021). From table 1 it is found that each indicator meets a value of more than 0.7

then all indicators are maintained.

To test the discriminant validity with reflexive indicators, by looking at the cross loading value for each variable, it must be > 70 (Ghozali, 2021).

Table 2. Cross loading

	(X1)	(X2)	(X3)	(Y)	(Z)	(M)	X1*M	X2*M	X3*M
CN1	0.71	0.71	0.70	0.66	0.71	0.81	-0.66	-0.70	-0.67
CN2	0.78	0.80	0.82	0.80	0.81	0.80	-0.59	-0.61	-0.65
CN3	0.79	0.81	0.81	0.77	0.80	0.83	-0.51	-0.53	-0.47
CN4	0.71	0.70	0.69	0.65	0.66	0.80	-0.45	-0.45	-0.42
CN5	0.60	0.58	0.57	0.58	0.62	0.71	-0.27	-0.29	-0.34
KJ1	0.96	0.96	0.94	0.96	0.97	0.89	-0.69	-0.68	-0.67
KJ2	0.88	0.84	0.85	0.85	0.85	0.82	-0.66	-0.66	-0.65
KJ3	0.93	0.91	0.89	0.90	0.88	0.84	-0.62	-0.63	-0.62
KJ4	0.93	0.90	0.89	0.90	0.89	0.84	-0.54	-0.55	-0.52
KJ5	0.93	0.92	0.89	0.92	0.91	0.84	-0.61	-0.63	-0.58
KN1	0.96	0.94	0.92	0.96	0.92	0.85	-0.64	-0.63	-0.63
KN2	0.90	0.91	0.91	0.93	0.91	0.84	-0.61	-0.62	-0.60
KN3	0.93	0.93	0.93	0.96	0.93	0.84	-0.65	-0.64	-0.66
KN4	0.93	0.92	0.90	0.95	0.92	0.82	-0.55	-0.55	-0.53
KN5	0.90	0.91	0.87	0.92	0.91	0.81	-0.57	-0.57	-0.56
KN6	0.91	0.90	0.92	0.93	0.92	0.83	-0.71	-0.69	-0.70
(X1)*(M)	-0.67	-0.71	-0.70	-0.66	-0.69	-0.64	1.00	0.97	0.94
LN1	0.92	0.93	0.92	0.93	0.96	0.87	-0.64	-0.64	-0.65
LN2	0.96	0.94	0.95	0.95	0.97	0.88	-0.64	-0.63	-0.63

LN3	0.95	0.95	0.94	0.95	0.97	0.88	-0.67	-0.66	-0.64
LN4	0.93	0.94	0.96	0.93	0.97	0.91	-0.71	-0.71	-0.74
MN1	0.92	0.94	0.90	0.92	0.91	0.85	-0.63	-0.62	-0.62
MN2	0.95	0.95	0.93	0.94	0.94	0.86	-0.63	-0.63	-0.60
MN3	0.94	0.95	0.94	0.94	0.93	0.88	-0.73	-0.73	-0.74
MN4	0.86	0.90	0.83	0.85	0.84	0.82	-0.61	-0.60	-0.54
MN5	0.96	0.97	0.95	0.95	0.95	0.90	-0.73	-0.73	-0.72
(X2)*(M)	-0.68	-0.70	-0.71	-0.65	-0.69	-0.66	0.97	1.00	0.93
PN1	0.87	0.87	0.92	0.89	0.89	0.84	-0.59	-0.59	-0.60
PN2	0.93	0.94	0.96	0.93	0.93	0.88	-0.62	-0.64	-0.63
PN3	0.90	0.91	0.95	0.91	0.93	0.87	-0.70	-0.68	-0.73
PN4	0.90	0.88	0.92	0.90	0.90	0.83	-0.65	-0.66	-0.68
PN5	^{0.94}	0.94	0.95	0.93	0.94	0.89	-0.66	-0.67	-0.68
PN6	^{0.89}	0.90	0.93	0.87	0.89	0.87	-0.73	-0.75	-0.76
(X3)*(M)	^{-0.66}	-0.68	-0.72	-0.65	-0.69	-0.65	0.94	0.93	1.00

Source: Smart-PLS data processor (2022)

From table 2, the cross loading number for each variable is > 70 , so it can be stated that the discriminant variable in this study is valid.

In measuring the model, construct reliability tests were also carried out. Reliability tests are

carried out to prove the accuracy, consistency and accuracy of the instrument in measuring constructs (Ghozali, 2021). The results of the reliability test in this study can be seen in the following table.

Table 3. Reliability

	Cronbach's Alpha	Composite Reliability
Customer Satisfaction (Y)	0.98	0.98
Service Quality (X1)	0.96	0.97
Customer Loyalty (Z)	0.98	0.98
Customer Motivation (X2)	0.97	0.98
Handling of Customer Complaints (M)	0.85	0.89
Customer Behavior (X3)	0.97	0.98
X1*M	1	1
X2*M	1	1
X3*M	1	1

Source: Smart-PLS data processor (2022)

The rule of thumb used in assessing construct reliability is that the composite reliability value must be greater than 0.7 for confirmatory research (Ghozali, 2021). In table 3 it can be seen that each variable meets the reliability requirements with a value above 0.7.

Measurement Model

After assessing the measurement results of the model, then the SEM-PLS test is followed by evaluation of the structural model and significance testing to test the influence between constructs or variables (Ghozali, 2021).

is 0.97. This indicates that the endogenous latent variable Customer Satisfaction (Y) is strongly influenced by the exogenous variables of Service Quality (X1), Customer Motivation (X2) and Customer Behavior (X3). While the endogenous latent variable Customer Loyalty (Z) is strongly influenced by 0.97 by the exogenous variable Service Quality (X1), Customer Motivation (X2) and Customer Behavior (X3) through the mediating variable Customer Satisfaction (Y).

Hypothesis Analysis

The next stage after testing covergene validity,

Table 4. R. Square

	R Square	R Square Adjusted
Customer Satisfaction (Y)	0.98	0.97
Customer Loyalty (Z)	0.97	0.97

Source: Smart-PLS data processor (2022)

To assess the structural model with PLS, it is done by looking at the R-Squares value for each endogenous latent variable as the predictive power of a structural model, changes in the R-Squares value can be used to explain certain exogenous latent variables to endogenous latent variables whether they have a substantive effect where the value R-Square 0.75, 0.50 and 0.25 can be concluded that the model is strong, moderate and weak (Ghozali, 2021). Table 4 shows that the endogenous variable R. Square of Customer Satisfaction (Y) is 0.98 and Customer Loyalty (Z) is 0.97.

This indicates that the endogenous latent variable Customer Satisfaction (Y) is strongly influenced by the exogenous variables of Service Quality (X1), Customer Motivation (X2) and Customer Behavior (X3). While the endogenous latent variable Customer Loyalty (Z) is strongly influenced by 0.97 by the exogenous variable Service Quality (X1), Customer Motivation (X2) and Customer Behavior (X3) through the mediating variable Customer Satisfaction (Y).

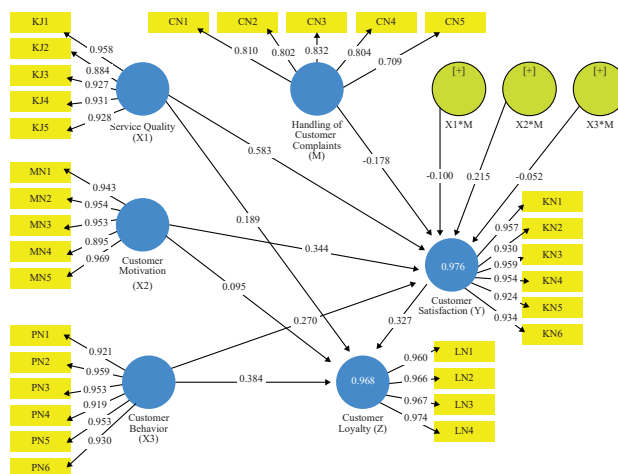


Figure 3. Results of PLS Algorithm
Source: Smart-PLS data processor (2022)

Then in Figure 4 the relationship line between exogenous and endogenous variables contains T-Statistic values through the bootstrapping process which symbolizes the significance of the influence between exogenous and endogenous latent variables.

The P value used to measure significance is P-value < 0.05% (Hair et al., 2019). From table 5, the results of the discussion of the hypothesis are obtained as follows:

H1: Service Quality (X1) has a positive and significant effect on Customer Satisfaction (Y),

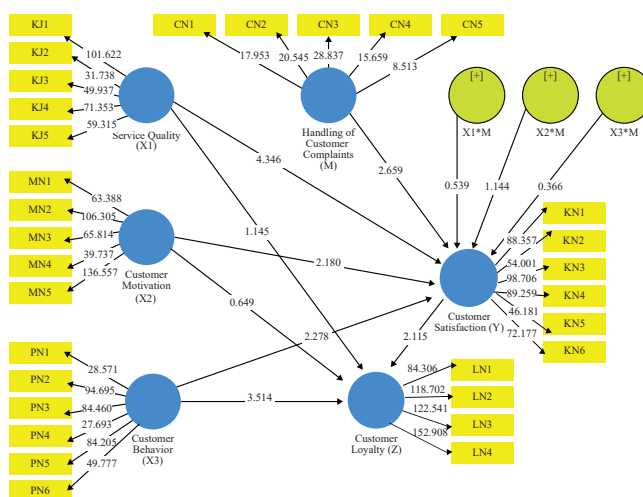


Figure 4. Results of PLS bootstrapping
Source: Smart-PLS data processor (2022)

Table 5 is the result of the bootstrapping process in this study. Table 5 shows the significance of the hypothesis. The significance value used at the 5% level is 1.96 (Ghozali, 2021).

from table 5 the original sample value is 0.58 and the significance with T Statistics is 4.40 and P Value is 0.00. Then the hypothesis is accepted.

H2: Customer motivation (X2) has a positive and

Table 5. Bootstrapping

	Original Sample (O)	T Statistics (O/STDEV)	P Values
Customer Satisfaction (Y) -> Customer Loyalty (Z)	0.33	2.18	0.03
Service Quality (X1) -> Customer Satisfaction (Y)	0.58	4.40	0.00
Service Quality (X1) -> Loyalitas Nasabah (Z)	0.19	1.06	0.29
Customer motivation (X2) -> Customer Satisfaction (Y)	0.34	2.10	0.04
Customer motivation (X2) -> Customer Loyalty (Z)	0.09	0.62	0.53
Handling of Customer Complaints (M) -> Customer Satisfaction (Y)	-0.18	2.71	0.01
Customer Behavior (X3) -> Customer Satisfaction (Y)	0.27	2.31	0.02
Customer Behavior (X3) -> Customer			

Loyalty (Z)	0.38	3.58	0.00
X1*M -> Customer Satisfaction (Y)	-0.10	0.53	0.60
X2*M -> Customer Satisfaction (Y)	0.21	1.14	0.26
X3*M -> Customer Satisfaction (Y)	-0.05	0.40	0.69

Source: Smart-PLS data processor (2022)

significant effect on Customer Satisfaction (Y), from table 5 the original sample value is 0.34 and the significance with T Statistics is 2.10 and P Value is

0.04. Then the hypothesis is accepted.

H3: Customer Behavior (X3) has a positive and significant effect on Customer Satisfaction (Y), from table 5 the original sample value is 0.27 and the significance with T Statistics is 2.31 and P Value is

0.02. Then the hypothesis is accepted.

H4: Handling of Customer Complaints (M) has a negative and significant effect on Customer Satisfaction (Y), from table 5 the original sample value is -0.18 and the significance is 2.71 with T statistic and P Value 0.01. Then the hypothesis is rejected.

H5: Handling of Customer Complaints (M) has no moderating effect on Service Quality (X1) and has no effect on Customer Satisfaction (Y), from table 5 the original sample value is -0.10 and the significance with T Statistics is 0.53 and P Value 0.60. Then the hypothesis is rejected.

H6: Handling Customer Complaints (M) does not have a moderating effect on Customer Motivation (X2) and has no effect on Customer Satisfaction (Y), from table 5 the original sample value is 0.21 and the significance with T Statistics is 1.14 and P Value 0.26. Then the hypothesis is not accepted.

H7: Handling Customer Complaints (M) has no moderating effect on Customer Behavior (X3)

and has no effect on Customer Satisfaction (Y), from table 5 the original sample value is -0.05 and a significance with T Statistics 0.40 and P Value 0.69. Then the hypothesis is rejected.

H8: Service Quality (X1) has no effect on Customer Loyalty (Z), from table 5 the original sample value is 0.19 and the significance with T Statistics is 1.06 and P Value is 0.29. Then the hypothesis is rejected.

H9: Customer motivation (X2) has no effect on Customer Loyalty (Z), from table 5 the original sample value is 0.09 and the significance with T Statistics is 0.62 and P Value is 0.53. Then the hypothesis is rejected.

H10: Customer Behavior (X3) has a positive and significant effect on Customer Loyalty (Z), from table 5 the original sample value is 0.38 and the significance is 3.58 T statistic and P Value 0.00. Then the hypothesis is accepted.

H11: Customer Satisfaction (Y) has a positive and significant effect on Customer Loyalty (Z), from table 5 the original sample value is 0.33 and the significance with T Statistics is 2.18 and P Value is

0.03. Then the hypothesis is accepted.

To measure the indirect effect of exogenous variables mediated by the Customer Satisfaction variable (Y) can be seen in the Specific Indirect Effect on Smart-PLS. Table 6 is the result of the specific indirect effect.

Table 6. Specific Indirect Effect

	Original Sample (O)	T Statistics (O/STDEV)	P Values
Service Quality (X1) -> Customer Satisfaction (Y) -> Customer Loyalty (Z)	0.19	1.72	0.09
Customer motivation (X2) -> Customer Satisfaction (Y) -> Customer Loyalty (Z)	0.11	1.48	0.14
Handling of Customer Complaints (M) -> Customer Satisfaction (Y) -> Loyalitas Nasabah (Z)			
Customer behavior (X3) -> Customer Satisfaction (Y) -> Customer Loyalty (Z)	-0.06	1.75	0.08
X1*M -> Customer Satisfaction (Y) -> Loyalitas Nasabah (Z)	0.09	1.45	0.15
X2*M -> Customer Satisfaction (Y) -> Customer Loyalty (Z)	-0.03	0.45	0.65
X3*M -> Customer Satisfaction (Y) -> Customer Loyalty (Z)	0.07	0.84	0.40

Source: Smart-PLS data processor (2022)

From table 6 the specific indirect effect in this study obtained:

H12: Service Quality (X1) does not have an indirect effect through Customer Satisfaction (Y) on Customer Loyalty (Z), from table 6 the original sample value is 0.19 and the significance with T Statistics is 1.72 and P Value is 0, 09. Then the hypothesis is rejected.

H13: Customer motivation (X2) does not have an indirect effect through Customer Satisfaction (Y) on Customer Loyalty (Z), from table 6 the original sample value is 0.11 and the significance with T Statistics is 1.48 and P Value is 0.14. Then the hypothesis is rejected.

H14: Customer behavior (X3) has no indirect influence through Customer Satisfaction (Y) on Customer Loyalty (Z), from table 6 the original sample value is 0.09 and the significance is 1.45 T statistic and 0.15 P Value. Then the hypothesis is rejected.

DISCUSSION

The quality of services provided by Bank Sahabat Sampoerna can increase satisfaction for its customers. The results obtained in this test are in accordance with research conducted by

Sigit & Soliha (2017) and research conducted by Oetama & Sari (2017) which states that service quality affects customer satisfaction. The factors that shape customer satisfaction occur because Bank Sahabat Sampoerna understands the needs and difficulties of its customers and the bank's employees have good communication, concern for your personal and you have the convenience of communicating or relationships so that customers get unconditional guarantees in terms of service performance from the Bank Sahabat Sampoerna when using the banking services provided. Service quality does not directly affect customer loyalty. This is not in accordance with research conducted by Zulkarnain et al (2020) which states that service quality has a positive and significant influence on customer loyalty.

The factor that causes service quality does not affect customer loyalty is that even though as customers they feel guaranteed and have no doubts about the services of Bank Sahabat Sampoerna because the bank's employees have the knowledge, ability, friendliness, courtesy and trustworthy nature, there are still customers who have not been able to make Bank Sahabat Sampoerna as the main choice when customers

apply for credit or financing. Through the SEM test service quality also does not provide an indirect effect through customer satisfaction on customer loyalty where this is not in accordance with research conducted by Apriyanti et al (2016) which states that customer satisfaction can provide a partial and significant mediating effect or as an intervening variable. in the effect of service quality on customer loyalty.

The motivation of customers to use credit at Bank Sampoerna has an influence on customer satisfaction at Bank Sahabat Sampoerna. The influence of motivation on Bank Sahabat Sampoerna's customer satisfaction is formed by a factor where customers are given the opportunity to submit ideas and recommendations by Bank Sahabat Sampoerna, especially in the credit application process so that long-term relationships are established by Bank Sahabat Sampoerna's marketing to its customers. The motivation of customers to use credit facilities at Bank Sahabat Sampoerna does not have a direct influence on customer loyalty. Although customers acknowledge that Bank Sahabat Sampoerna gives freedom to customers to make decisions and be creative freely, but with some limited rules in the credit application process, some customers still do not plan to open other loans and buy other product lines at

Bank Sahabat Sampoerna. In the SEM test, customer motivation also does not have an indirect effect through customer satisfaction on customer loyalty.

The assessment of customer behavior applied by Bank Sahabat Sampoerna before the customer uses the credit service provided has an influence on customer satisfaction. The factor that influences the relationship between customer behavior and customer satisfaction is that Bank Sahabat Sampoerna, apart from being a place that serves customers' needs to take credit, is also a bank that can fulfill customer desires and expectations because customers believe that Bank Sahabat Sampoerna has quality products and services. Customer behavior also has a direct effect on customer loyalty at Bank Sahabat Sampoerna. The factor that forms this

loyalty is that customers understand well how to use or utilize banking services at Bank Sahabat Sampoerna so that customers are willing to recommend Bank Sahabat Sampoerna to their relations. However, in the indirect influence test in the SEM method, customer behavior does not have an indirect effect on customer loyalty through customer satisfaction.

The handling of customer complaints implemented by Bank Sahabat Sampoerna has no effect on customer satisfaction. These results indicate a discrepancy with research conducted by Rosita and Indrawijaya (2015) which states that the implementation of customer satisfaction is determined by the handling of customer complaints. This discrepancy occurs because the indicators for handling customer complaints where the bank overcomes the factors for the occurrence of complaints to prevent complaints from occurring is still a doubt for some customers so that it does not affect customer satisfaction in getting good and effective complaint services from Bank Sahabat Sampoerna. In the SEM moderation test, it was also found that handling customer complaints did not have a moderating effect on service quality, customer motivation and customer behavior on customer satisfaction.

Customer satisfaction built by Bank Sahabat Sampoerna has an effect on customer loyalty of the bank. This is in accordance with the theory which states that customer loyalty is influenced by many factors, one of which is customer satisfaction (Utama & Murti, 2021). This is also in accordance with research conducted by Setiawan et al (2016) which states that customer loyalty is influenced by customer satisfaction. Factors that shape the influence of satisfaction on loyalty are customers assessing Bank Sahabat Sampoerna as having good performance in serving their customers so that customers are willing to provide positive information about Bank Sahabat Sampoerna to others.

CONCLUSION

Through the SEM method used in this study, empirical facts are obtained that service quality, customer motivation and customer behavior that

are considered by Bank Sahabat Sampoerna affect customer satisfaction, therefore Bank Sahabat Sampoerna Branch Kelapa Gading needs to maintain and improve the quality of services and assessments regarding motivation and behavior of its customers. Handling customer complaints cannot be a moderating variable of service quality, customer motivation and customer behavior towards customer satisfaction.

Bank Sahabat Sampoerna Branch Kelapa Gading needs to design strategies regarding better handling of customer complaints in serving customers. Customer satisfaction also needs to be maintained to maintain customer loyalty at Bank Sahabat Sampoerna Branch Kelapa Gading because the tendency of satisfied customers will form the loyalty of these customers. In this study also found a new fact that is rarely studied by researchers that customer motivation and customer behavior can affect customer satisfaction itself even customer behavior can affect customer loyalty to the bank.

For researchers, this research is a research that uses a quantitative approach with a questionnaire as a data collection technique where respondents fill out a questionnaire as the data to be analyzed. No qualitative analysis was included in the presentation of the results of this study. Therefore, to get better results, it is hoped that further research can be carried out to fully understand the respondents' intentions by using qualitative and quantitative approaches such as interview techniques.

ACKNOWLEDGEMENT

The great appreciation is given to the customers of Bank Sahabat Sampoerna Kelapa Gading Branch who have taken the time to respond to the questionnaire in this study. We also express our gratitude to the marketing of Bank Sahabat Sampoerna Kelapa Gading Branch who has bridged us to provide questionnaires to its customers.

REFERENCES

Adhitya, W. R. (2019). Analisis Perilaku Nasabah Dan Loyalitas Nasabah Terhadap Pengambilan

Keputusan Kredit Di Koperasi Simpan Pinjam Baitul Maal Wattamwill (Bmt) Medan Johor. *Accumulated Journal*, 1(2), 142–159.

Apriyanti, Putri, Djasuro Surya dan Lutfi. (2017). Analisis Kualitas Layanan dan Citra Perusahaan Terhadap Loyalitas Nasabah Dengan Kepuasan Nasabah Sebagai Variabel Intervening (Studi Empirik Nasabah Tabungan Tandamata Bank BJB Cabang Serang). *JRBM Jurnal Riset Bisnis dan Manajemen Tirtayasa*, 1(2), 159-166.

Andriyani, M., & Ardianto, R. E. (2020). Pengaruh Kualitas Layanan dan Kualitas Produk Terhadap Kepuasan Nasabah Bank (The Effect of Service Quality and Product Quality on Bank Customer Satisfaction). *Jurnal Ekonomi Manajemen Bisnis*, 01(02), 135.

Atmaja, Jaka. (2018). Kualitas Pelayanan dan Kepuasan Nasabah Terhadap Loyalitas Pada Bank BJB. *Jurnal Ecodemica*, Vol. 2 No. 1, pp 49–63.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24.

Harahap, D. A., & Amanah, D. (2019). Kajian Kualitas Pelayanan dan Loyalitas Nasabah Perbankan di Indonesia. *Jurnal Bisnis Dan Ekonomi*, 26(1), 27–40.

Herawati, N., & Sulistyowati, M. (2019). Strategi Meningkatkan Kepuasan Dan Loyalitas Nasabah Dengan Optimalisasi Kualitas Pelayanan, Penangan Komplain Dan Fasilitas Teknologi Di Bank Mandiri Syariah Cabang Solo. *Excellent*, 6(2), 99–113.

Ghozali, Imam. (2021). *Partial Least Square Konsep, Teknik dan Aplikasi Menggunakan Program SmartPLS 3.2.9 Untuk Penelitian Empiris*. Semarang: Badan Penerbit Universitas Diponegoro.

Lay, N. Y. (2019). Analisis Pengaruh Kualitas Layanan, Komitmen, dan Penanganan Komplain terhadap Kepuasan Nasabah. *Mabis*, 9 (2).

Miswan, A. (2019). Perkembangan dan Dampak

- Financial Technology (Fintech) terhadap Industri Keuangan Syariah di Jawa Tengah. *Wahana Islamika: Jurnal Studi Keislaman*, 5 (1), 38.
- Nina, Septi Ayu Triten, Versiandika Yudha Pratama. (2021). Analisis Motivasi Pinjaman Nasabah Pada Rentenir Berdasarkan Prinsip Pembiayaan Syariah. *Velocity Journal of Sharia Finance and Banking* Vol. 1 No.1. pp. 1-9.
- Oetama, S. & Desy Herlina Sari. (2017). Pengaruh Fasilitas dan Kualitas Pelayanan Terhadap Kepuasan Nasabah Pada PT. Bank Mandiri (Persero) Tbk Di Sampit. *Jurnal Terapan Manajemen dan Bisnis* (3/1) 59-65.
- Putri, Shavira Zhulfa Eka, Agus Windarko dan Siti Asiyah. (2021). Pengaruh Citra Perusahaan, Penanganan Keluhan, Kualitas Layanan, Kepercayaan Terhadap Loyalitas Melalui Kepuasan Pelanggan Sebagai Variabel Intervening (Studi Kasus Pada Pelanggan Shavira Catering & Service). *E-Jurnal Riset Manajemen* Vol. 10 No. 09.
- Rahayu, M. A., Widowati, M., & Handayani, J. (2021). Analisis Pengaruh Perilaku Konsumtif, Motivasi, Kelompok Referensi dan Kualitas Layanan Terhadap Keputusan Menabung. *Al Maal: Journal of Islamic Economics and Banking*, 2(2), 143.
- Rizaty, Monavia Ayu. (2022). Penyaluran Pinjaman Fintech Lending Naik 1,4% per September 2022. *DataIndonesia.id*. <https://dataindonesia.id/bursa-keuangan/detail/penyaluran-pinjaman-fintech-lending-naik-14-per-september-2022>. Diakses pada 14 November 2022.
- Rosita, Berliantina & Sigit Indrawijaya. (2015). Pengaruh Penanganan Komplain Terhadap Kepuasan Nasabah. *Digest Marketing* Vol. 1 No. 1. ISSN: 2302-4682.
- Sangadji, Etta Mamang & Sopiah. (2013). Perilaku Konsumen Pendekatan Praktis Disertai Himpunan Jurnal Penelitian. Yogyakarta: CV Andi Offset.
- Sanjayawati, H. (2019). Perilaku Komplain, Penanganan Komplain Dan Atribut Harga Pengaruhnya Terhadap Kepuasan Pelanggan. *Jurnal Bisnis Dan Manajemen*, 6(2), 127–133.
- Setianingsih, F. A., Ety, E., & Supriyadi, E. (2019). Pengaruh Kualitas Produk Tabungan dan Kualitas Layanan Terhadap Kepuasan Nasabah yang Berdampak pada Loyalitas Nasabah (Studi Kasus PT Bank Pembangunan Daerah Jawa Barat dan Banten, Tbk di Wilayah Depok). *JIMEA-Jurnal Inovasi Manajemen Ekonomi Dan Akuntansi*, 1(1), 198–214.
- Setiawan, Heri, Maria Magdalena Minarsih dan Aziz Fathoni. (2016). Pengaruh Kualitas Produk, Kualitas Pelayanan dan Kepercayaan Terhadap Kepuasan Nasabah dan Loyalitas Nasabah Dengan Kepuasan Sebagai Variabel Intervening (Studi Kasus Pada Nasabah Koperasi Rejo Agung Sukses Cabang Ngaliyan). *Journal of Management* Vol. 2 No.2 ISSN 2502-7689.
- Setiawan, H. (2019). Pengaruh kualitas layanan, persepsi nilai Dan kepuasan nasabah terhadap loyalitas nasabah bank. *MOTIVASI: Jurnal Manajemen Dan Bisnis*, 2(2), 208–229.
- Sigit, Kharisma Nawang & Euis Soliha. (2017). Kualitas Produk dan Kualitas Layanan Terhadap Kepuasan dan Loyalitas Nasabah. *Jurnal Keuangan dan Perbankan*, 21 (1): 157-168.
- Mawey, Thalia Claudia, Altje L. Tumbel, Imelda W. J. Ogi (2018). Pengaruh Kepercayaan Dan Kualitas Layanan Terhadap Kepuasan Nasabah PT Bank Sulutgo. *Jurnal EMBA*, 6(3), 1198–1207.
- Tionardi, E. F. (2018). ANALISIS PERILAKU NASABAH NONMUSLIM MEMILIH SIMPANAN DI PERBANKAN SYARIAH. *Calyptra*, 2(2), 1–12.
- Tijptono, Fandy. (2019). Pemasaran Jasa Prinsip Penerapan Penelitian. Yogyakarta: CV Andi Offset.
- Utama, A. P., & Murti, T. R. (2021). Kepuasan Nasabah Sebagai Mediator Pengaruh Kepercayaan Terhadap Loyalitas Nasabah. *Jurnal IKRA-ITH Ekonomika*, 4(2).
- Walfajri, Maizal. (2022). Terus Meningkat, BI Sebut Kredit Perbankan Naik 11% pada September 2022. *Kontan.co.id News Data Financial Tools*. <https://keuangan.kontan>.

co.id/news/terus-meningkat- bi-sebut-kredit-perbankan-naik-11-pada-september-2022. Di akses pada 14 November 2022.

Zulkarnain, Rizal, HER Taufik dan Agus David Ramdansyah. (2020). Pengaruh Kualitas

Pelayanan dan Kualitas Produk Terhadap Loyalitas Nasabah Dengan Kepuasan Nasabah Sebagai Variabel Intervening (Studi Kasus Pada PT. Bank Syariah Mu'amalah Cilegon) Jurnal Manajemen dan Bisnis 2 (01), 87-110.

The background of the page is a large, curved musical staff with various notes and stems, creating a sense of motion and rhythm. The staff is curved from the bottom left towards the top right. The notes are black, and the stems are also black, with some notes having a small oval head. The staff lines are thin and black. The overall aesthetic is clean and modern.

Jurnal
MANDIRI[®]
ILMU PENGETAHUAN, SENI, DAN TEKNOLOGI

www.jurnalmandiri.com

ISSN : 2580-3220, E-ISSN : 2580-4588
J. Mandiri., Vol. 6, No. 2, Desember 2022 (116- 136)
©2017 Lembaga Kajian Demokrasi
dan Pemberdayaan Masyarakat (LKD-PM)
DOI: <https://doi.org/10.33753/mandiri.v6i2.218>

Evaluation of Ecosystem Services and Mangrove Management Based on the Blue Economy Approach of Untung Jawa Island

Aryo Sahid Sujiwo

Fakultas Teknik Industri, Universitas Islam Jakarta
aryosahidsujiwo@uid.ac.id

Nurlaili

Fakultas Teknik Industri, Universitas Islam Jakarta
nurlaili@uid.ac.id

Abstract

Mangrove forests have a very important role for people's lives, especially for people who live in coastal areas, both from environmental, economic and social aspects. However, the economic potential of the ecosystem services provided by mangrove forests has not been comprehensively calculated. As a result, the economic potential of mangrove forests in an area is often calculated to be lower than the actual economic potential. The purpose of this research is to evaluate the total economic potential of mangrove forest ecosystem services. The economic valuation method of ecosystem services used in this study is the Total Economic Value method, including the economic value of providing services, regulatory services, cultural services, and supporting services. The location of this research is on Untung Jawa Island, Seribu Islands, DKI Jakarta Province, while the research time is from July to September 2022. The data used in determining the economic value in this study are primary data and secondary data. The results of the analysis show that the total economic value of the provision of services is around IDR 607 million per year, support services around IDR 15 million per year, cultural services around IDR 1.3 billion per year, and regulatory services around IDR 34 billion per year. The findings of this study have implications that the government and related stakeholders are required to provide more intensive education to the public about the importance of sustainable management of mangrove forests for the development of a blue economy on the island

Keywords: Total Economic Value, Ecosystem Services, Mangrove, Blue Economy, Untung Jawa Island

INTRODUCTION

In general, the literature acknowledges that mangrove forests have a very important role for mankind, especially for people who live in coastal areas. Besides being beneficial for human life, mangroves can also be beneficial for animals, the economy, society, and the environment. This is based on the understanding that mangrove forests have a variety of positive functions, including

physical, chemical, biological, economic and tourism functions (Sujiwo et al., 2022).

Ecosystem services is a term used to describe the benefits people receive from an ecosystem, including mangrove, coral, forest, seagrass and peat ecosystems. This research focuses on the study of mangrove forest ecosystem services on Untung Jawa Island, Thousand Islands, DKI Jakarta Province.

Society can benefit from ecosystem services in a number of ways, both directly and indirectly, such as by using them as inputs in the creation of commodities and other services. The concept of ecosystem services is widely used in environmental economics, where the benefits of mangrove forests are converted into economic units so that these ecosystem services can be converted into currency values. Ecosystem services are divided into four categories, namely provisioning services, regulatory services, cultural services and supporting services (MEA., 2005).

Provisioning services are defined as products obtained from the ecosystem; for example, mangrove ecosystems can provide a variety of marine products (fish, shrimp, and crabs) and natural resources (firewood). Ecosystems also offer regulatory services, which include climate management, carbon sequestration, air and air purification, are advantages derived from controlling ecosystem processes and can undoubtedly contribute economically. Furthermore, cultural services are defined as non-material benefits derived from ecosystems, such as mangroves that can serve as ecotourism destinations and offer spiritual and aesthetic experiences, cultural heritage, recreation, scientific research, etc. While supporting services, such as nutrient cycling, pollination, and seed dispersal, are needed to support all other ecosystem functions (MEA., 2005).

Until now, the estimation of the economic value of mangrove forest ecosystem services still faces various obstacles, including the absence of market values for the various services provided by these ecosystems. This kind of condition is one of the challenges in assessing mangrove forest ecosystem services from an economic point of view. In addition, empirical research that focuses on estimating the economic value of mangrove forest ecosystem services as a whole is still limited (UNEP, 2011).

The notion of total economic value (TEV), on the other hand, is an economic concept used to determine the potential economic value of all the services provided by an ecosystem. TEV is the

total value of all the economic potential embodied in provisioning services, regulatory services, cultural services and supporting services. However, it should be noted that some ecosystem service indicators have market prices while some other ecosystem service indicators do not have market values. One of the challenges researchers must face is determining the economic value of ecosystem service indicators that have no market value. To overcome this problem, the literature suggests using replacement prices in estimating the economic value of these ecosystem service indicators (Vo Quoc et al., 2012).

The literature review found that several researchers had carried out studies to calculate the economic value of mangrove forests in Java Island. For example, Indartik and Pribadi (2019) conducted a study on the economic value of mangrove forests in East Java Province. Their research divides the economic value of mangrove forests into two groups: economic values based on ecological functions and economic functions. However, their research only used three indicators of economic value based on ecological function and two indicators of economic value based on economic function.

Kurniawati and Pangaribowo (2018) carried out a study on the economic value of mangrove forests in West Java Province. Their research divides the economic value of mangrove forests into three groups: economic values based on direct benefits, indirect benefits, and optional values. In this case, their research includes five indicators to determine economic value based on direct benefits, includes one indicator to determine economic value based on indirect benefits, and one indicator of economic value based on option value.

In particular, Prasetyo et al. (2016) conducted a study to calculate the economic value contained in mangrove forests on Untung Jawa Island, DKI Jakarta Province. However, their research only determines the economic value of mangrove forests on the island based solely on use value, without taking into account the non-use value of these resources. These previous studies have not comprehensively analyzed the economic

value of mangrove forests by including various dimensions and indicators of the economic value of mangrove forests, whether they have market value or those that do not have market value. These findings motivated this study to analyze the potential economic value of mangrove forests using the Total Economic Value (TEV) approach. Referring to UNEP (2011), this study argues that the TEV approach will produce estimates of the economic value of mangrove forests that are close to their real values. This is based on the notion that the estimated total economic value of mangrove forests will be based on the accumulated economic values of four types of ecosystem services provided by mangrove ecosystems: provisioning services, regulatory services, cultural services, and supporting services.

METHODS

This research method involves direct observation and literature review to assess the value of ecosystem services, especially mangrove ecosystem services on Untung Jawa Island, the Thousand Islands, Jakarta Province.

Study area

This research took place in the mangroves of Untung Jawa Island, Thousand Islands, Jakarta. The research was conducted in July - September 2022 during 3 field visits during the dry and rainy seasons. The research time was taken either in the morning, afternoon or evening. Untung Jawa Island has a land area of 40.1 ha with a potential mangrove area of 3.46 hectares. The types of mangroves found on Untung Jawa Island are *Rhizophoramucronata* and *Avicenia alba* (Prasetyo et al., 2016).

Data collection and sampling design

Both primary and secondary data are part of the needed data. Primary data is information gathered during field trips to Untung Jawa Island from questionnaires, discussions with different parties, direct observation, and interviews. With regards to the sampling strategy for respondents utilizing Accidental Sampling or Convenience Sampling, i.e., data sampling methods or respondents whose number is not known in advance, as well

as individuals who are met and in accordance with the criteria can complete the disseminated questionnaires. The researcher immediately collected data from the sampling unit that was encountered at the research location. (Kumaat, 2022).

People from Untung Jawa Island who engage in everyday activities both directly and indirectly related to the mangrove forest are the study's respondents (mangrove seed farmers, craftsmen, fish seekers, fishermen) and tourists. Interviews were also carried out with stakeholders at the study area to find out the policies applied to the mangrove area and the general condition of the study area, such as the village head, the tourism agency, fishermen. Surveys and discussions were also conducted with representatives from Ministry of Marine Affairs and Fisheries as well as with HNSI (Indonesian Fishermen Association) representatives in Muara Angke in order to assess the fish, shrimp, and crabs production on Untung Jawa Island. The interviewed stakeholders were responsible to record all the fish resources collected by local fishermen with small boats. The market price for fish resources were also derived from the local market in Muara Angke. Meanwhile, secondary data was obtained by collecting supporting data from various peer review supporting literacy.

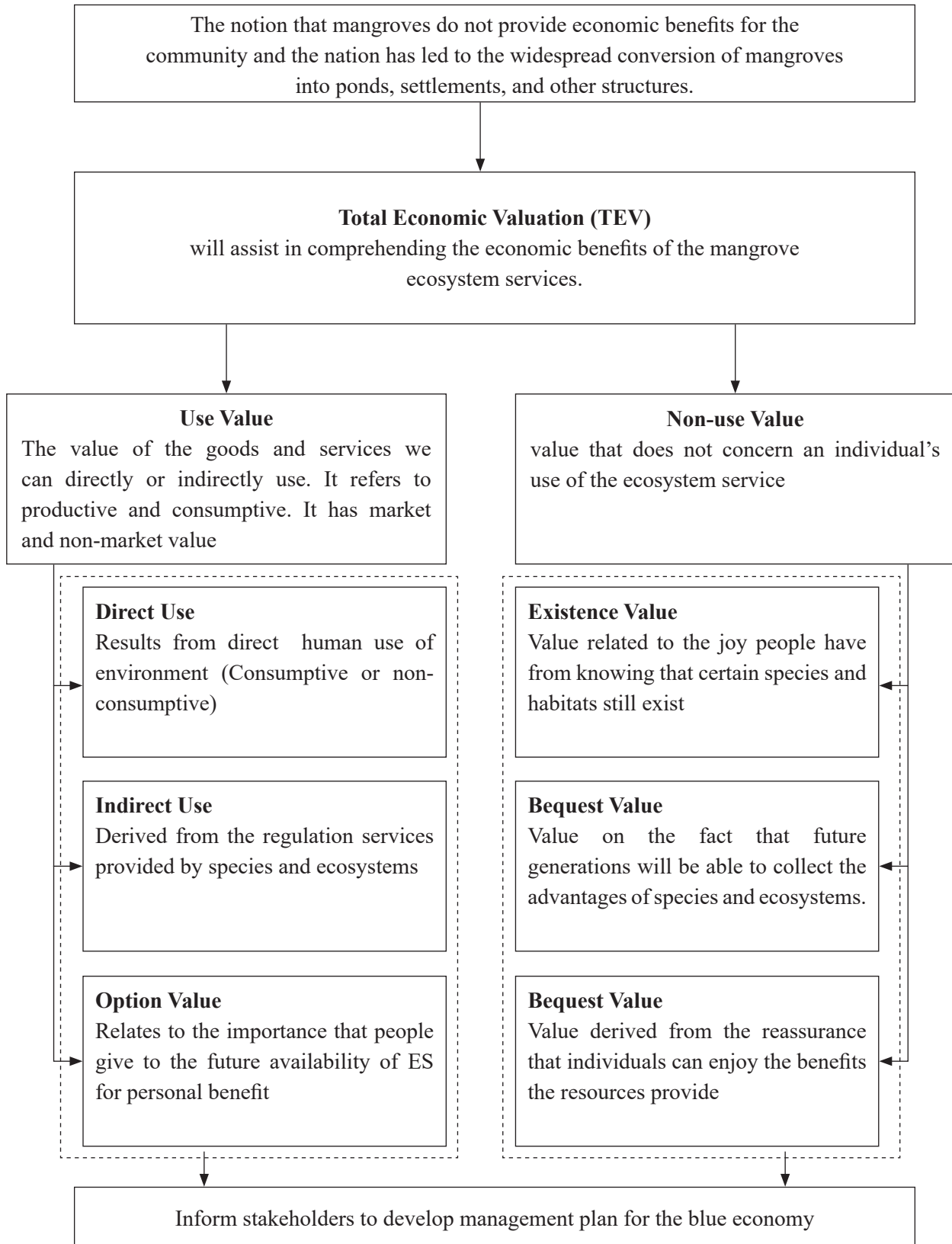
Economic assessment methodologies

This section gives a general overview of the theory and methods used to assess environmental products and services before delivering the summary findings on the economic value of ecosystem services. The Total Economic Valuation (TEV) is used as the economic valuation approach for mangrove in this study. In a study by Pascual (2010) emphasized that EV is categorized into use values and non-use values. Then, use value is split into three categories: direct value (goods or services that can be consumed directly), indirect value (benefits that have a functional purpose), and option value (direct and indirect use value for the future generation). However, non-use values also include existence values, which are defined as the values of knowing how to live sustainably (Janekarnkij., 2008). Two

key ideas in environmental economics are TEV and ecosystem services concepts. In general,

the process of determining economic value can further be explained through table 1.

Table 1. The relationship between TEV and ecosystem services for the decision makers to develop blue economy



Source: Pascual et al., 2010, modified

RESULTS

Economic value of provisioning services

For the purpose of this research, provisioning services refer to products obtained by the community from the mangrove ecosystem, such as food, fuel, and wood fiber. Mangrove forest provision services also refer to the benefits received by the community, due to the shelter of various living things; including fish, shrimp, and crab (Vo Quoc et al., 2012). The following is an economic valuation of mangrove forest provision services from the aspect of fish, shrimp, crab, and various types of wood breeding grounds.

Habitat for fish

Literature suggest that fish development is greatly influenced by mangroves, particularly in the early stages. The yellow snapper, or *Lutjanus argentiventris*, is a species of fish that depends on mangroves for its whole life cycle. When the juvenile fish reach a size of about 100

mm, they leave the mangrove habitat and go to deeper habitats. Fish exploit the highly complex mangrove forest ecosystems as adaptations to fend off predators and as food sources (Findra et al., 2016). Table 2 shows the various types of fish that require mangroves forest during their life cycle, including their catches and prices. As shown in Table 2, this study found that mangrove forest services as fish habitat have a high economic value, which is around IDR 263 million per year. The findings of this study are in line with previous studies which found that fisheries are an important indicator for determining the economic value of mangrove forests. For example, Indartik and Pribadi (2019) stated that fisheries in mangrove forests can reach around IDR 23 million per year while Kurniawati and Pangaribowo found that the economic value of mangrove forests as fish habitat can reach almost IDR 335 million per year.

Table 2. Types of commercial fish that require mangroves during their life cycle, catch and price

Scientific names	Common names	Price/kg	Catch/year	Total
<i>Lutjanus argentiventris</i>	ikan kakap kuning	35,000	1,200	42,000,000
<i>Lethrinus harak</i>	Ikan Lencam bintik hitam	25,000	1,296	32,400,000
<i>Lutjanus lentjan</i>	Ikan Lencam (Pane et al., 2020)	25,000	1,080	27,000,000
<i>Lutjanus fulviflamma</i>	Ikan dory snapper	30,000	3,600	18,000,000
<i>Siganus sutor</i>	Ikan Baronang	40,000	3,600	144,000,000
Total				263,400,000

Habitat for shrimp

Another important provisioning service of mangrove forests is as a shrimp habitat. According to Arief (2003), a variety of species use the mangrove habitat to locate food and shelter when they are young or juvenile. Others live continually throughout their life cycle in the mangrove ecosystem, for instance api-api shrimp or *metapenaeus monoceros* require mangroves during their life cycle because mangroves are places to find food, spawn or to shelter from predators. There is a positive and significant relationship between mangrove forests and the level of fishery production (Kordi, 2012). In April 2021, 10,549 clear lobster seeds were released into the waters of the Untung Jawa islands by the Ministry of Maritime Affairs and Fisheries.

The following is a list of shrimp requiring mangroves ecosystem during their life cycle and the total catch per year (Table 3). The research results as presented in Table 3 depict that the economic value of mangrove forests as a shrimp habitat is around IDR 129 million per year. This study found that giant prawns were no longer available on Untung Jawa Island and around Jakarta due to reduced mangrove areas

in the Thousand Islands. Previous research also found that mangrove forests have a fairly high economic value. For example, Rospita et al. (2017) suggested that mangrove forests as shrimp habitats can achieve an economic value of around IDR 127 million per year while Kurniawati and Pangaribowo found that the economic value of mangrove forests as shrimp habitat could reach almost IDR 137 million per year.

Habitat for Crab

Furthermore, the literature generally acknowledges that mangrove forests have high potential as crab habitat (Ismail et al., 2019). The following is a list of crabs that need mangroves during their life cycle and their catch per year in (Table 4). As presented in Table 4, this study only found "wideng crab" species in the mangrove forest of Untung Jawa Island, Thousand Islands, while "orange mangrove crab" and large mangrove crabs were not found on the island. Furthermore, the results of the analysis show that the economic value of mangrove forests as crab habitat is around IDR 86 million per year. This value is slightly smaller than the findings of Rospita et al. (2019) who argued that mangrove forests as crab habitat can achieve an economic value of around IDR 91 million per year.

Table 3. Types of commercial shrimp that require mangroves during their life cycle and their prices

Scientific names	Common names	Price/kg	Catch/year	Total
<i>Metapenaeus monoceros</i>	Udang api - api	Rp 60,000	2,160	129,600,000
<i>Macrobrachium rosenbergii</i>	udang galah	Rp 50,000	0	0

Table 4. Types of commercial crabs that require mangroves during their life cycle and their prices

Scientific names	Common names	Price/kg	Catch/year	Total
<i>Episesarma meder</i>	Kepiting wideng	12,000	72,000	86,400,000
<i>Scylla olivacea</i>	kepiting-bakau jingga	145,000	0	0
<i>Scylla serrata</i>	kepiting-bakau besar	160,000	0	0

Producer of many products of economic value

The literature acknowledges that mangrove forests are an eco-system with the potential to provide various products of economic value to the community, including providing firewood and mangrove fruit which can be further processed. Firewood is one of the many goods that mangrove forests can provide.

Previously, many people on Untung Jawa Island used the mangrove forest to find firewood as cooking fuel. In addition, mangroves can produce a variety of additional processed products including chips, syrup, dodol, and others that can increase people's income (Sabana, 2015).

However, this study found that the people of Untung Jawa Island were not yet interested in processing mangrove fruit into processed products with higher economic value. The island community is more interested in utilizing mangrove fruit to become mangrove seeds. These seeds will grow into young mangrove trees which farmers will sell when there is a mangrove conservation program on this island. These young mangrove trees cost IDR 7,500 per tree. This research found that there are five mangrove farmers on this island. In a year there are about 17,000 trees planted. Thus, the total economy from selling mangrove trees can reach around IDR 127 million per year. This value is higher than the findings of Prasetyo et al. (2016) which determines the economic value of mangrove fruit

at IDR 45 million per year.

Economic value of regulating services

Water regulation, purification, and waste treatment

Literature suggests that mangrove forests are an ecosystem that has high potential in providing regulatory services, especially in water regulation (Vo Quoc et al., 2012). Referring to previous research (Polii et al., 2020), determining the economic value of water management services from a mangrove ecosystem is carried out using a cost or community expenditure approach in fulfilling clean water for household needs. This value is considered equivalent to the function of mangrove forests as an intrusion barrier because if the area does not have mangrove forests, the community will have difficulty getting clean and fresh water. The survey results show that the population of the island of Untung Jawa is 2,440 people while the price of one gallon of water is IDR 3,000 per gallon. The following is the calculation of economic value of mangrove forests in terms of water regulation, purification and waste treatment. The results of the analysis show that the economic value of mangrove forests in terms of water regulation and intrusion barrier is IDR 20,305,680,000. This value is higher than the findings of Polii et al. (2020) which determines the economic value of mangrove forests in terms of water regulation and intrusion resistance of IDR 1,781,200,000 per year.

Economic value = TP x WC x P x days

TP = Total Population WC = Water Consumption
 P = Price of Water (IDR/gallon) Days = Number of days in 1 year

So = 2,440 people x 7.6 gallons x IDR 3000 x 365 days
 So = IDR 20,305,680,000

*One Indonesian consumes an average of 144 liters of water per day. 1 gallon is equivalent to 19 liters. So 144/19 = 7.6 gallons

Erosion control

In general, the literature acknowledges that mangrove forests have a significant role in preventing abrasion. Abrasion is a destructive oceanographic phenomenon due to erosion by waves and ocean currents. If this happens, damage will occur to the coastal environment including the mainland (Polii et al., 2020). In this case, determining the economic value of mangrove forests as abrasion prevention can be done using a replacement price approach, namely by building abrasion-resistant embankments. damage to settlements and housing and building facilities if the function of mangrove forests as a deterrent to abortion is damaged or lost (Indartik & Pribadi, 2019).

Based on the survey results and literature review, this study found that the length of the coastline of Untung Jawa Island which protects the mangrove forest is around 1,257 m (Prasetyo et al., 2016). Meanwhile, the cost of making the embankment is around IDR 11 million per meter with a height of 7 meters and a width of 3 meters. Thus, the economic value of mangrove forests as an abrasion barrier is around IDR 14 billion. This value is equivalent to the findings of Indartik and Pribadi (2019) which determined that the economic value of mangrove forests as an abrasion barrier is IDR 12 to 27 billion. This value is different from the study by Polii et al. (2020) which determines the economic value of mangrove forests as an abrasion barrier of around IDR 211 billion.

Carbon sequestration and stock

Furthermore, the literature suggests that mangrove forests have economic value based on the fact that these ecosystems function as carbon

sinks (Indartik & Pribadi, 2019). Therefore, the estimation of carbon storage in mangrove forests can be used as a basic reference in assessing the economic benefits of mangrove forests in the form of C-Sequestration environmental service commodities (Purnobasuki, 2012). The Paris Agreement, which Indonesia has ratified, calls for all countries to achieve carbon neutrality by 2050. The agreement aims to reduce carbon emissions and prevent climate change. One of the paths taken in reducing emissions and adapting to the effects of climate change is through preserving the functions of mangrove ecosystems, seagrass beds and brackish areas. The agreement makes mangrove forests an economic asset in the future (KLHK, 2016).

Referring to Barus and Wijaya (2021), this study determines the economic value of mangrove forests as carbon sinks based on the quantity of carbon that can be absorbed by mangrove forests on Untung Jawa Island, which can be multiplied by the carbon price. For the puIDRoses of this research, the carbon tax rate applied is the same as the carbon price in the international carbon market, which is IDR 30,000 per kilogram. Meanwhile, Windarni et al. (2018) estimate that the amount of carbon that mangroves can sequester is around 199 tonnes per hectare. The following is a model for determining the economic value of mangrove forests as a carbon sink. As seen, the results of the analysis show that the economic value of mangrove forests as carbon sinks is around IDR 20,615,718. This value is smaller than the findings of Hairunnisa et al. (2018) who determined that the economic value of mangrove forests as a carbon sink is around IDR 5.3 billion per year.

Economic value = amount of carbon absorbed by mangrove stands and litter x International carbon price x Mangrove area

carbon sequestration from mangrove stands

Economic value = 197.36 tons* / hectare x Rp. 30,000 X 3.46 hectares Economic value = IDR 20,485.968

carbon sequestration from litter

Economic value = 1.25 tons** / hectare x IDR 30,000 X 3.46 hectares Economic value = IDR 129,750

Total value = IDR 20,485,968 + IDR 129,750 = IDR 20,615,718

*Estimation of the amount of carbon that can be absorbed by the mangrove stand

**Estimated amount of carbon that can be absorbed by litter carbon

Cultural services

Cultural service is one dimension of ecosystem services provided by mangrove ecosystems. Cultural services refer to non-material benefits derived from mangrove ecosystems. There are four indicators that can be used to measure the cultural services of mangrove ecosystems: spiritual enrichment, aesthetic experience, educational development, and recreation (Vo Quoc et al. 2012). Based on field surveys and the constraints that must be faced, this study focuses on two indicators of mangrove forest cultural services, namely the development of education and recreation. The following is an estimate of the economic value of mangrove forest cultural service indicators in terms of education and recreation development.

Ecotourism

Traveling in a mangrove forest is one of the reasons for tourists to visit Untung Jawa Island. The travel cost method is all costs incurred to go to the mangrove ecotourism area. Indeed, as found in the literature, mangrove forests have high economic potential as providers of ecotourism services. Untung Jawa Island is one of the islands and tourist destinations in the Thousand Islands Regency which offers various types of beach tourism and mangrove forests (Prasetyo et al., 2016).

Referring to Kurniawati and Pangaribowo

(2017), this study uses the Travel Cost approach in estimating the economic value of mangrove forests as a tourist destination on Untung Jawa Island. Based on this method, there are three variables used to estimate the economic value of mangrove forests as a tourist destination: round-trip boat ticket prices from the port of Tanjung Pasir to Untung Jawa Island, the number of visiting tourists, consumption of tourists during their visit, MSME income, and lodging costs. Using the price of a boat ticket back and forth from Tanjung Pasir harbours to Untung Jawa Island is IDR 43,000. Based on the survey results, this study found that the number of tourists visiting Untung Jawa Island could reach 10,000 people per day, especially on weekends.

The results of the analysis show that the economic value of mangrove forests as a tourist destination is around IDR 430 million per year. This value is greater than the findings of Kurniawati and Pangaribowo (2017) who determine the economic value of mangrove forests as a tourist destination of around IDR 2.1 million per year. The price for renting accommodation is around IDR 200,000 to IDR 350,000 per night. There are around 15 lodgings on Untung Jawa Island consisting of various types of rooms and facilities and 123 SMEs that provide various kinds of food, drinks, clothing, snorkeling, bicycle and toilet rentals.

Research and education

The literature suggests that education and research are indicators of cultural services from mangrove forests (Vo Quoc et al. 2012). However, to the knowledge of researchers, no one in Indonesia has estimated the economic value of mangrove forests as a provider of cultural services in terms of educational and research development. This kind of condition is also expressed in the literature which suggests that cultural services are a dimension of ecosystem services that have not been fully disclosed and understood in depth. This is based on the insight that the economic value of these indicators is based on individual and emotional values, not based on market values. Consequently, there is little research on mangrove ecosystems that explicitly establishes the economic value of the cultural services provided by these ecosystems (Himes-Cornell et al., 2018).

Referring to Himes-Cornell et al. (2018), this study uses the monetary value of grants, salaries, and field and research costs. Based on a literature review, this study found that many studies have

been conducted to examine mangrove ecosystems in terms of their conservation and biodiversity. This study assumes that research funding assistance from the Ministry of Education and Culture is around IDR 20 million per study. Based on researchers through Google Scholar, it was found that the number of studies that focused on the economic valuation of mangrove forests was 45 studies. Thus, research determines the economic value of mangrove forests on Untung Jawa Island as a provider of cultural services is around IDR 900 million per year.

Supporting services

Photosynthesis

Oxygen production is one of the most common but under-researched benefits of mangroves. We can calculate the economic value of this service from the amount of net oxygen that can be produced by mangroves. 5.9 tonnes of net O₂ released per 1 hectare of mangrove per year. There is 3.46 hectare of mangroves so it means that it can produce 20,414 tonnes of net O₂ produced or equal to 57.80 m³ on Untung Jawa Island.

Economic value = total net O₂ produced in m³ x the price of 1 m³ of oxygen cylinder
Economic value = 57.80 m³ x Rp 30,000

Economic value = IDR 1,734,000

Soil formation and retention

The change in the coastline on UntungJawa Island due to abrasion is 21.77 m². While the change in coastline by accretion is 45.32 m² (Setiyowati., 2016). Then there is an addition of land surface of 23.55 m². The price of land on Untung Jawa Island is Rp 600,000/meter.

$$\text{Economic value} = (\text{accession} - \text{abrasion}) \times \text{land price/meter}$$

$$\text{Economic value} = 23.55 \text{ m}^2 \times \text{IDR } 600,000 = \text{IDR } 14,130,000$$

Provisioning of habitat and biodiversity

Optional benefit assessment refers to the biodiversity value of the mangrove ecosystem. The economic value used refers to Ruitenbeek (1992) in Teluk Bintuni, West Irian, which is US\$ 15/ha/year or the equivalent of IDR 235,593/ha/year.

Mangrove social aspect

Understanding of mangrove ecosystem services in the community

In addition to estimating the economic value of the ecosystem services provided by mangrove forests on Untung Jawa Island, this research also seeks to measure the understanding of the community towards the ecosystem services provided by mangrove. For the purpose of this study, there are four indicators used to measure people's understanding of mangrove ecosystem services: erosion prevention, reducing the impact

of damage in the event of a storm, producing natural oxygen, and converting mangrove forest land into ponds. The instruments used were questionnaires and direct interviews with people living on the coast of the island.

The results of the analysis show that the

majority of respondents (78%) understand that mangrove forests have an important function in preventing erosion. Respondents generally also understand that mangrove forests have a high role in reducing the impact of damage in the event of a storm/tsunami (78%). For oxygen-producing services, the survey results indicate that 50% of respondents understand that mangrove forests are ecosystems that produce natural oxygen. Furthermore, this study found that as many as 32% of respondents stated that they agreed if part of the mangrove forest land was converted into shrimp or fish ponds; as many as 29% of respondents stated that they did not agree; as many as 22% of respondents stated that they were in doubt; and as many as 16% of respondents stated that they were not sure. Figure 1 below shows the distribution of respondents' answers for the conversion of part of the mangrove forest land into ponds on Untung Jawa Island.

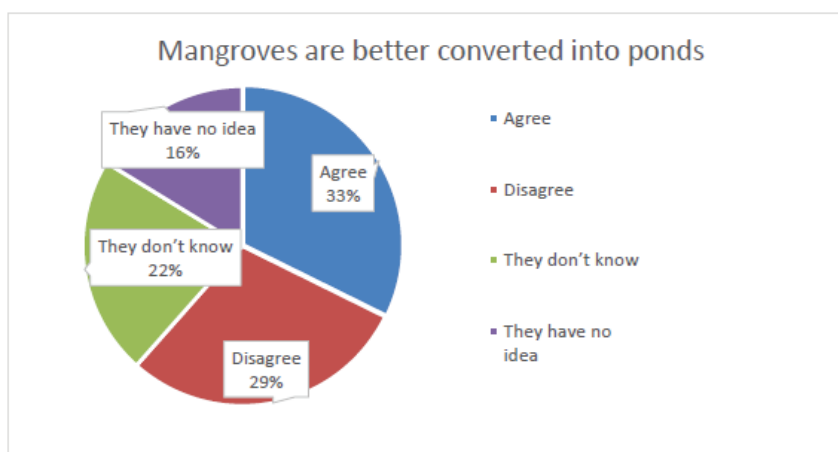


Figure 1. Results of analysis of respondents' opinions on the conversion of mangroves into ponds

The findings above have implications that the government and related stakeholders are required to provide more intense education to the public about the importance of managing mangrove forests in a sustainable manner. Furthermore, this research also seeks to explore the understanding of the people of Untung Jawa Island regarding the potential of mangrove forests as an ecotourism destination. The survey results indicate that the majority of respondents (77.4%) are of the view that mangrove forests have high potential as a beach tourism destination. Such an understanding shows that mangrove forests have high potential as part of the blue economy development on the island.

Finally, this study seeks to explore the understanding of the people of Untung Jawa Island about the relationship between mangrove forests and carbon trading. The survey results, as presented in Figure 2, indicate that the majority of respondents (74.2%) do not know that there is a close relationship between mangrove forests and global carbon trading. These findings have implications that the government and related stakeholders are required to provide more intense education to the public about the economic potential of mangrove forests from carbon trading.

DISCUSSION

The current status of mangrove ecosystem services

This study aims to determine the economic value of mangrove ecosystem services on Untung Jawa Island, Thousand Islands, DKI Jakarta Province. To the researchers' knowledge, only one study has attempted to determine the economic value of mangrove forests on Untung Jawa Island (Pratiyo et al., 2016). This study estimates the economic value of mangrove forests based on direct use values (timber benefits, fish benefits, and fruit benefits) and indirect use values (mangrove economic values as abrasion barriers, places to find food, recreation, education, and conservation). Based on aggregate calculations, the findings of this study yielded a total economic value of mangrove forests on the island of around IDR 7.8 billion per year. This research considers that this value does not yet reflect the actual total economic value of mangrove forests because it has not taken into account various indicators of other ecosystem services. This research seeks to find a more precise total economic value of mangrove forests on the island by taking into account various indicators of provisioning services, supporting services, cultural services,

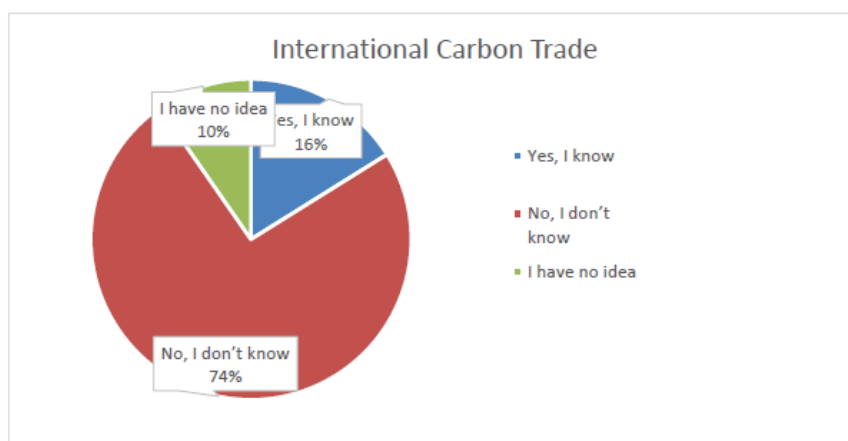


Figure 2. Level of knowledge of respondents related to international carbon trading

and regulatory services.

This research also seeks to enrich understanding of the economic value of mangrove forests in Indonesia by disaggregating the values of each indicator used in this study. This is based on the premise that many previous studies did not fully explain how these studies determine economic valuation estimates. For example, many of these studies do not describe the names of the fish, crab, and shrimp species that might be found. To overcome this, this study conducted direct interviews with the coordinating chairman of the Indonesian Fishermen's Association regarding the price and amount of their catch. Ecosystem services can also be quantify by implementing Integrated Valuation of Ecosystem Services and Tradeoffs (InVEST) modelling that can calculate several ecosystem services, including carbon sequestration, ecotourism, coastal protection (Tussadiah et al., 2021).

Total economic valuation

The results of the analysis, as explained in the previous chapter, explain that the total

economic value of mangrove forests on Untung Jawa Island is around IDR 36 billion per hectare per year. Of the total economic value, the highest proportion of economic value is the economic value of regulatory services. The results of the analysis show that the economic value of regulatory services is around IDR 34 billion per hectare per year. The value of embankment construction along the shoreline of Untung Jawa Island as a substitute for mangrove forests is the most significant economic value of the economic value of mangrove forests as a barrier to abrasion and erosion. This finding implies that all stakeholders are required to have a correct understanding of the importance of conserving mangrove forests on the island. Furthermore, so far research related to the evaluation of mangrove ecosystem services has not evaluated the function of mangroves as a carbon sink which can become an asset for international carbon trading in Indonesia. Table 5 describes the ecosystem services that were not evaluated in this study.

Table 5. Ecosystem services not evaluated in economics and alternative economic valuations

Ecosystem services not evaluated	Alternative economic evaluation
Provisioning services The function of mangroves is as a provision of genetics, ornaments and biochemicals	Several types of traditional medicine use processed materials from mangroves. In addition, mangrove wood was also used as cremation wood. So that the use of market prices can be used in evaluating these services.
Regulating services The function of mangroves is to regulate water quality, regulate pollination, tsunami moderation	Moderation of the impact of the tsunami can be evaluated economically by using the regional repair budget due to natural disasters which reaches up to 10 trillion from funds from BNPB (National Disaster Management Agency) and death compensation funds for heirs due to natural disasters by the social ministry of 15 million per person

<p>Cultural services The mangrove adds to the aesthetic values as well as Cultural heritage, spiritual and religious value of mangrove</p>	<p>Mangroves are not used as a cultural heritage site on Untung Jawa Island. Unlike in Bali where there are many Hindu temples located in mangroves. So that the Willingness to pay approach can be carried out in Bali compared to this research location.</p>
	<p>A hotel will be built on the island close to the mangroves. The price of a hotel lies not only in the facilities offered but also depends on the view the hotel has to offer. Tourists will pay more for the position of the room facing the beautiful mangrove scenery. So the price of the hotel will be worth more if there is a view of this mangrove. So that mangroves can make the location of a hotel or recreation area more economically valuable to attract tourists to stay there. So revenue from a hotel that is located facing mangroves can be used as an alternative methodology</p>

In addition to providing production services with high economic value, mangrove forests on Untung Jawa Island also have an important role in providing a place for various species of fish

that have high commercial value in the market. Table 6 presents the total economic value of each of the mangrove forest ecosystem services studied in this study.

Table 6. Summary of the economic valuation of each ecosystem service

Provisioning Services	Economic Value	Percentage
Fishing area	Rp 263,400,000	43.40%
Shrimp catch area	Rp 129,600,000	21.36%
Crab catch area	Rp 86,400,000	14.24%
Mangrove products	Rp 127,500,000	21%
Total	Rp 606,900,000	100%
Regulating Services	Economic Value	Percentage
Water purification	regulation Rp 20,305,680,000	and 59.46%
Erosion control	Rp 13,825,020,000	40.48%
Carbon sequestration	Rp 20,615,718	0.06%
Total	Rp 34,151,315,718	100%
Cultural Services	Economic Value	Percentage
Ecotourism	Rp 430,000,000	32.33%
Research and Education	Rp 900,000,000	67.67%
Total	Rp 1,330,000,000	100%

Supporting Services	Economic Value	Percentages
Photosynthesis	Rp 173,400	1.15%
Soil Formation	Rp 14,130,000	93.46%
Biodiversity	Rp 815,151	5.39%
Total	Rp 15,118,551	100%

TEV methodologies

Table 7 describes several choices of TEV methods for evaluating ecosystem services. One ecosystem service can use several different

methods. This research also shows that regulatory services have the most challenges in evaluating them into economic value because they require a lot of knowledge to quantify them.

Table 7. Ecosystem Service evaluation method

Economic Valuation Methodologies									
Ecosystem services	Pro-duction Method	Sub-stitute Method	Indi-rect Cost	Preven-tative expen-ditures	Change in earn-ings meth-ods	Hedonic method	Travel Cost Meth-od	Will-ingness To pay	Benefit-transfer method
Provision services									
Fishing Area	x								
Shrimp catch area	x								
Crab catch area	x								
Mangrove products	x		x						
Provide ge-netics		x						x	
Provide or-nament	x								
Biochemi-cal proces-sess		x	x					x	
Regulation Services									
Air Qual-ity mainte-nance								x	
Climate regulation								x	

Water regulation, purification and waste treatment	x	x			x
Erosion control		x			
Moderation of Tsunami and storm		x			
Disease regulation		x	x		x
Carbon sequestration ponds	x				
Natural source of food	x				
Cultural Services					
Ecotourism	x			x	x
Aesthetic Value			x		x
Cultural Heritage, Spiritual & Religious Value					x
Research and Education	x				
Supporting Services					
Photosynthesis	x				
Soul Formation	x				
Biodiversity					x

Table 8 explains further regarding the definition of the TEV methodologies in evaluating ecosystem services into economic aspects.

Table 8. Definition of economic valuation methodologies (Modified, Lal P., 2003)

Methodologies	Definitions
Production method	It is for goods and services are traded on the market, and their economic value can be calculated
Substitute method	The price of comparable products, or near equivalents, sold in the market can be used as a proxy for market price for goods and services that are not marketed, such as dyes and medicinal values.
Indirect opportunity cost	A proxy for the cost could be the time spent collecting and preparing dyes or medications.
Preventative expenditures	This approach is used to estimate the economic value by determining how much replacement cost need to pay once goods and services lost. For example, after mangroves are reclaimed, one may need to establish a seawall to prevent the erosion or a solid-waste filtering device to get clean or pollutant free water.
Change in earnings methods	The economic cost of pollution is estimated using the loss in earnings approach due to medical expenses when human health is affected by pollution. However, it fails to account for the full cost of pollution to society, which includes the possibility of human loss. Utilizing the insurance premiums that people are willing to pay, the value of human life is calculated.
Hedonic method	This method relies on people's willingness to pay for a good, which often depends on its characteristics. Thus, for example, the price that is paid for a house not only depends on its size, but also on its location, e.g. whether it is in a highly polluted area, or near an industrial site where there is excessive air pollution. Economists use such information to determine the economic value of, for example, air pollution, or environmental aesthetics.
Travel cost method	The recreational and aesthetic value of mangroves could be estimated using how much people are willing to pay to visit a site. Note that this method relies on the actual expenses incurred by the recreational user to derive a market demand for the resource and from which an appropriate economic value for the recreational experience is estimated. The actual expenditure itself is not equal to the economic value of recreational experience.

Benefit-transfer method

Where all else fails, benefit-transfer estimates have been argued by some to offer potential to estimate economic values. Benefit transfer is effectively using values estimated from previous economic studies conducted elsewhere and applying them to current sites. It is important, however, to note that care needs to be taken when using this approach. It is important to ensure that, when using value estimates derived for other sites, there is close similarity between the characteristics of the two sites and the respective policy environments. In addition, there must be sufficient similarity in the stages of economic development, and the supply and demand conditions.

InVEST Modelling

Integrated Valuation of Ecosystem Services and Tradeoffs modelling that can calculate several ecosystem services, including carbon sequestration, ecotourism, coastal protection (Tussadiah et al., 2021)

CONCLUSION

The literature review found that several researchers have carried out studies to estimate the economic value of mangrove forests in Indonesia. In particular, there is one study that has attempted to establish the economic value of mangrove forests on Untung Jawa Island. However, the results of previous studies have not reflected the actual total economic value of mangrove forests because they have not taken into account various indicators of the four ecosystem services.

This research seeks to enrich the understanding in the literature about the economic value of mangrove forests by finding a more precise total economic value of mangrove forests on Untung Jawa Island. This is done by taking into account various indicators of provision services, support services, cultural services, and regulatory services in estimating the total economic value of mangrove forests on the island. The results of the analysis show that the total economic value of the provision of services is around IDR 607 million per year, support services are around IDR 15 million per year, cultural services are around IDR 1.3 billion per year, and regulatory services are around IDR 34 billion per year.

The findings of this study provide several implications that need attention. First, the government and related stakeholders are required to provide more intense education to the public

on the importance of managing mangrove forests in a sustainable manner. Second, the government and related stakeholders are required to provide more intense education to the public about the economic potential of mangrove forests from carbon trading. Third, all stakeholders are required to have a correct understanding of the importance of conserving mangrove forests on Untung Jawa Island.

This research has provided deeper insight into the total economic value of mangrove forests which is more precise on Untung Jawa Island. However, the research also has some limitations. First, this research has not taken into account all indicators of mangrove forest ecosystem services identified in the literature, especially cultural services and provision of mangrove ecosystem services. Second, this study only discusses the total economic value of mangrove forests on Untung Jawa Island. The results obtained may differ from the results of research on other islands. Third, this study does not compare all possible approaches or methods to be used in calculating the total economic value of mangrove forests, especially for indicators that have no market value.

ACKNOWLEDGEMENT

This research is supported and funded by the Ministry of Education, Culture, Research and

Technology with the Penelitian Dasar Pemula (PDP) scheme based on Decree Number 421/LL3/AK.04/2022 with Agreement/Contract Number 077/058-B.1/R /VI/2022.

REFERENCES

- Alisa, C. A. G., & Faizal, I. (2020). Kandungan Timbal dan Kadmium pada Air dan Sedimen di Perairan Pulau Untung Jawa, Jakarta. *Akuatika Indonesia*, 5(1), 21-26.
- Amalia, S., Djumanto, D., & Probosunu, N. (2017). Komunitas krustasea di kawasan mangrove Desa Jangkaran Kabupaten Kulon Progo.
- Arfan, A., Sanusi, W., Rakib, M., & Taufieq, N. A. S. (2019, June). Economic Value of Mangrove Forest in Pannikiang Island, Barru District, South Sulawesi, Indonesia. In *Journal of Physics: Conference Series* (Vol. 1244, No. 1, p. 012015). IOP Publishing.
- Ariftia, R. I., Qurniati, R., & Herwanti, S. (2014). Nilai ekonomi total hutan mangrove desa Margasari kecamatan Labuhan Maringgai kabupaten Lampung Timur. *Jurnal Sylva Lestari*, 2(3), 19-28.
- Barus, E. B., & Wijaya, S. (2021). Penerapan Pajak Karbon Di Swedia Dan Finlandia Serta Perbandingannya Dengan Indonesia. *JURNAL PAJAK INDONESIA (Indonesian Tax Review)*, 5(2), 256-279.
- Bird, E. C. F., & Barson, M. M. (1977). Measurement of physiographic changes on mangrove-fringed estuaries and coastlines. *Marine Research in Indonesia*, 18, 73-80.
- Burkhard B., Guerra C.A., Daviosdottir B. (2019), "Discussion paper 3: Soil retention (regulating) ecosystem services", Expert Meeting on Advancing the Measurement of Ecosystem Services for Ecosystem Accounting, New York, 22-24.
- F. Sidik, M. F. Adame & C.E. Lovelock, *Journal of the Indian Ocean Region*. 2019, Volume 15:2, 177- 192.
- Findra, M. N., Adharani, N., & Herdiana, L. (2016). Pelebaran habitat ikan di perairan ekosistem hutan mangrove. *Media Konservasi*, 21(3), 304-309.
- Genisa AS. 2006. Keanekaragaman fauna ikan di perairan mangrove Sungai Mahakam, Kalimantan Timur. *Oseanologi dan Limnologi di Indonesia*. 41: 39-53.
- Hairunnisa, S.K., Gai, A.M., dan Soewarni, I. (2018), "Valuasi Ekonomi Hutan Mangrove Di Wilayah Pesisir Desa Boroko Kabupaten Bolaang Mongondow Utara Provinsi Sulawesi Utara", *Jurnal Planoeearth*, 3 (1), 17-22.
- Himes-Cornell et al. (2018), "Mangrove Ecosystem Service Values and Methodological Approaches to Valuation: Where Do We Stand?", *Frontiers in Marine Science*, 6, 1-15.
- Himes-Cornell, A., Grose, S. O., & Pendleton, L. (2018). Mangrove ecosystem service values and methodological approaches to valuation: where do we stand? *Frontiers in Marine Science*, 5, 376.
- Indartik, M.L. & Pribadi, M.A. (2019), "Valuasi Ekonomi Ekosistem Mangrove Dan Kontribusinya terhadap Pendapatan Rumah Tangga: Studi Kasus Desa Pemogan, Tuban Dan Kutawaru", *Jurnal Penelitian Sosial dan Ekonomi Kehutanan*, 16 (3), 197-210.
- Ismail, I., Sulistiono, S., Hariyadi, S., & Madduppa, H. (2019). Hubungan antar degradasi mangrove Segara Anakan dan penurunan hasil tangkapan kepiting bakau (*Scylla sp.*) di Kabupaten Cilacap, Provinsi Jawa Tengah. *Jurnal Ilmu Pertanian Indonesia*, 24(3), 179-187.
- James, G. K., Adegoke, J. O., Osagie, S., Ekechukwu, S., Nwilo, P., & Akinyede, J. (2013). Social valuation of mangroves in the Niger Delta region of Nigeria. *International Journal of Biodiversity Science, Ecosystem Services & Management*, 9(4), 311-323.
- Janekarnkij, P. (2008). Overview of economic valuation: value classification and valuation method. Retrieved from UEPSCS: Economic Valuation Training Materials: http://www.unepscs.org/Economic_Valuation_Training_Materials/01%20Values%20of%20Coastal%20Habitat%20Goods%20and%20Services/05-Overview-Economic-Valuation.

pdf.

Kimirei et al. (2011) juga melaporkan keberadaan ontogenetik habitat beberapa jenis ikan di mangrove, yaitu *Lethrinus* sp., *Lutjanus fulviflamma* dan *Siganus* sp. Ikan *Lutjanus apodus* juga memerlukan mangrove dalam siklus hidupnya (Schärer et al. 2008).

Kimirei IA, Nagelkerken I, Griffioen B, Wagner C, Mgaya YD. 2011. Ontogenetic habitat use by mangrove/ seagrass-associated coral reef fishes shows flexibility in time and space. *Estuarine, Coastal and Shelf Science*. 92: 47-58.

Kumaat, T. D., Tiwa, T. M., & Sengkey, S. B. (2022). Analisis Resiliensi Siswa SMA Di Kota Tomohon Dalam Masa Pandemi Covid-19. *JISIP (Jurnal Ilmu Sosial dan Pendidikan)*, 6(2).

Kurniawati, N.D. & Pangaribowo, E.H. (2017), "Valuasi Ekonomi Ekosistem Mangrove Di Desa Karangsong, Indramayu", *Jurnal Bumi Indonesia*, 6 (2), 1-12.

Lal, P. (2003). Economic valuation of mangroves and decision-making in the Pacific. *Ocean & Coastal Management*, 46(9-10), 823-844.

Larasati, N. N., Wulandari, S. Y., Maslukah, L., Zainuri, M., & Kunarso, K. (2021). Kandungan Pencemar Detejen Dan Kualitas Air Di Perairan Muara Sungai Tapak, Semarang. *Indonesian Journal of Oceanography*, 3(1), 1-13.

MA, M.E.A., 2005a. *Ecosystems and Human Well-being. A Framework for Assessment*, Washington, DC.

MA, M.E.A., 2005b. *Ecosystems and Human Well-being: Current State and Trends*. Island Press, Washington, p. 1.

Morinière EC, Pollux BJA, Nagelkerken I, Hemminga MA, Huisjes AHL, Velde GVD. 2003. Ontogenetic dietary changes of coral reef fishes in the Mangrove-Seagrass-Reef continuum: Stable isotopes and gut-content analysis. *Marine Ecology Progress Series*. 246: 279-289.

Nakamura Y, Horinouchi M, Shibuno K, Tanaka Y, Miyajima T, Koike I, Kurokura H, Sano M. 2008. Evidence of ontogenetic migration from mangroves to coral reefs by black-

tail snapper *Lutjanus fulvus*: stable isotope approach. *Marine Ecology Progress Series*. 355: 257±266.

Nur, B. A., & Kuntjoro, S. (2020). Keanekaragaman dan Kelimpahan Kepiting *Uca* (Crustacea: Ocypodidae) di Pantai Selatan Kabupaten Bangkalan, Madura.

Oropeza OA, Guerrero IJ, Nieto JC, Lugo TP. (2009). Recruitment and ontogenetic habitat shifts of the yellow snapper (*Lutjanus argentiventris*) in the Gulf of California. *Marine Biology*. 156: 2461± 2472

Pal, N., Mitra, A., Zaman, S., Mitra, A. (2019), "Natural Oxygen Counters in Indian Sundarbans, The Mangrove Dominated World Heritage Site", *Acta Scientific Agriculture*, 3 (5), 153-159.

Pane, A. R. P., Nurulludin, N., Widiyastuti, H., & Suman, A. (2020). Struktur ukuran dan tingkat pemanfaatan ikan lele (*Lethrinus lentjan* Lacepede, 1802) perairan rafura di Probolinggo. *Al-Kaunyah: Jurnal Biologi*, 13(1), 128-138.

Pascual, U., Muradian, R., Brander, L., Gómez-Baggethun, E., Martín-López, B., Verma, M., ...

& Polasky, S. (2010). The economics of valuing ecosystem services and biodiversity. *The economics of ecosystems and biodiversity: Ecological and economic foundations*, 183-256.

Polii, V. D., Durand, S. S., & Andaki, J. A. (2020). Nilai Ekonomi Tidak Langsung Ekosistem Mangrove Di Kelurahan Tongakaina Kecamatan Bunaken Kota Manado. *AKULTURASI: Jurnal Ilmiah Agrobisnis-Perikanan*, 8(1), 13-23.

Polii, V. D., Durand, S. S., & Andaki, J. A. (2020). Nilai Ekonomi Tidak Langsung Ekosistem Mangrove Di Kelurahan Tongakaina Kecamatan Bunaken Kota Manado. *AKULTURASI: Jurnal Ilmiah Agrobisnis-Perikanan*, 8(1), 13-23.

Prasetyo, D. E., Zulfikar, F., & Shinta, S. (2016). Valuasi Ekonomi Hutan Mangrove di Pulau Untung Jawa Kepulauan Seribu: Studi Kon-

servasi Berbasis Green Economy. *Omni- Akuatika*, 12(1).

Prasetyo, D.E., Zulfikar, F., Shinta., Zulkarnain, I. (2016), "Valuasi Ekonomi Hutan Mangrove di Pulau Untung Jawa Kepulauan Seribu : Studi Konservasi Berbasis Green Economy", *Omni Akuatika*, 12 (1), 48-54.

Primavera, J. H. (2006). Overcoming the impacts of aquaculture on the coastal zone. *Ocean & Coastal Management*, 49(9-10), 531-545.

Purnobasuki, H. (2012), "Pemanfaatan Hutan Mangrove Sebagai Penyimpan Karbon", *Buletin PSL Universitas Surabaya*, 28, 3-5.

Purnomo, A., & Purwana, R. (2008). Dampak Cadmium dalam Ikan terhadap Kesehatan Masyarakat. *Kesmas: Jurnal Kesehatan Masyarakat Nasional (National Public Health Journal)*, 3(2), 89-96.

Rochyatun, E; Kaisupy M.T; dan Rozak, A. 2005. Distribusi Logam Berat Dalam Air Dan Sedimen di Perairan Muara Sungai Cisadane. *Jurnal Makara*, 10 (1): 35-40.

Rospita, J., Zamdial., Renta, P.P. (2017), "Valuasi Ekonomi Ekosistem Mangrove Di Desa Pasar Ngalam Kabupaten Seluma", *Jurnal Enggano*, 2 (1), 115-128.

Sabana, C. (2015). Kajian Pengembangan-Produksi Makanan Olahan Mangrove. *Jurnal Ekonomi Dan Bisnis*, 14(1), 40-46.

Sarastika, T. (2021). Valuasi ekonomi jasa ekosistem mangrove di wilayah pesisir kota-Pekalongan. *Geo Media: Majalah Ilmiah dan Informasi Kegeografian*, 19(1), 26-34.

Schärer MT, Nemeth MI, Appeldoorn RS. 2008. Mapping ontogenetic habitat shifts of coral reef fish at Mona Island, Puerto Rico. *Proceedings of the 60th Gulf and Caribbean Fisheries Institute*: 305- 310.

Setiyowati, S. (2016). Studi Perubahan Garis Pantai Pulau Untung Jawa Kepulauan

Seribu DKI Jakarta, Working Paper, UIN Jakarta.

Sujiwo, A.S., Purwanto, U.S., Raihan, R., & Kemala, A.S. (2022). Persepsi Masyarakat Terhadap Jasa Ekosistem Mangrove Di Pulau Untung Jawa. *Jurnal Dinamika Pengabdian (JDP)*, 7(2), 393-406. Tussadiah, A., Sujiwo, A. S., Andesta, I., & Daeli, W. (2021). Assessment of coastal ecosystem services and its condition for policy management plan in East Nusa Tenggara, Indonesia. *Regional Studies in Marine Science*, 47, 101941.

UNEP (2011), "Economic Analysis of Mangrove Forests: A case study in Gazi Bay", Kenya, United Nations Environment Programme, New York.

Verweij MC, Nagelkerken I, Wartenbergh SLJ, Pen IR, Velde GVD. 2006. Caribbean mangroves and seagrass beds as daytime feeding habitats for juvenile French grunts, *Haemulon flavolineatum*. *Marine Biology*. 149: 1291±1299.

Vo Quoc, T., Kuenzer, C., Vo Quang, M., Moder, F., & Oppelt, N. (2012), "Review of valuation methods for mangrove ecosystem services", *Journal of Ecological Indicators*, 23, 431-446.

Wienarto et al. (2010), "Integrasi Jasa Ekosistem Dalam Perencanaan Tata Ruang" Working Paper, IPB Bogor. <http://www.litbang.pertanian.go.id/buku/membangun-kemampuan-pengelolaan/BAB-II-2.pdf>.

Windarni, C., Setiawan, A., & Rusita, R. (2018). Estimasi Karbon Tersimpan Pada Hutan Mangrove Di Desa Margasari Kecamatan LabuhanMaringgai Kabupaten Lampung Timur. *Jurnal Sylva Lestari*, 6(1), 66-74.

Zulpikar, F., Tambunan, L. A., Utami, S. R., & El Kiyat, W. (2018). Economic Valuation of Marine Tourism in Small Island Using Travel Cost Method (Case Study: Untung Jawa Island, Indonesia). *Omni-akuatika*, 14(1), 28-35.



ISSN : 2580-3220, E-ISSN : 2580-4588
J. Mandiri., Vol. 6, No. 2, Desember 2022 (137- 148)
©2017 Lembaga Kajian Demokrasi
dan Pemberdayaan Masyarakat (LKD-PM)
DOI: <https://doi.org/10.33753/mandiri.v6i2.216>

Determinants of Profit Growth Based on Financial Ratios at PT Ace Hardware Tbk

Ivan Putranto

Fakultas Ekonomi dan Bisnis, Universitas Pamulang
dosen01675@unpam.ac.id

Citra Eliyani

Fakultas Ekonomi dan Bisnis, Universitas Pamulang
dosen01776@unpam.ac.id

Abstract

This purpose of the study was to determine the effect of current ratio (CR), Debt to equity ratio (DER), Return on Equity (ROE), Total Asset Turn Over (TATO) on profit growth at PT Ace Hardware Tbk for 2010-2021 period by partially or simultaneously. The method used in this study is a descriptive method using a quantitative approach. The data used in this study is secondary data in the form of financial statements at PT Ace Hardware Tbk for 2010-2021 period. Data processing by used SPSS version 25 program. Data analysis used classical assumption test, linier regression test, hypothesis test by T test and F test, and determination test. Based on the results of the classical assumption test, the data is normally distributed, there is no multicollinearity problem, there is no heteroscedasticity problem and free from autocorrelation. Partially, the current ratio variable has no effect on profit growth ($0,223 > 0,05$). Debt to equity ratio has an effect on profit growth ($0,014 < 0,05$), return on equity has no effect on profit growth ($0,141 > 0,05$). Total assets turn over has no effect on profit growth ($0,353 > 0,05$). Simultaneously, the variables current ratio, debt to equity ratio, return on equity, and total assets turnover have an effect on profit growth of $0,021 < 0,05$. The value of the coefficient of determination (R^2) obtained from results of this study was 77,2% while the remaining 22,8% was influenced by other variables have not researched.

Keywords: CR, DER, ROE, TATO, Profit Growth

INTRODUCTION

Economic growth in the era of digitalization is increasing rapidly. Currently, the phenomenon of online shopping appears in society so that it can condition every business to be more dynamic and also competitive and make a major contribution to economic growth. The business is formed by increasingly innovative companies creating new opportunities to stay afloat and even excel in the market.

Companies that contribute to economic growth, especially companies listed on the Indonesian stock exchange strive to show their best performance, the company's performance will be observed by interested parties. One of the performances that is easy to use and get attention is a report on the company's financial performance. The company's ability to make a profit is one of the company's performances that receives important attention. Profit is an important point that must be

considered because profit is one of the company's performance that is easily observed by interested parties. Profit can be interpreted as the excess of the proceeds of income on expenses incurred during one accounting period. This information is useful for internal parties and external parties of the company (Kristianti, 2021). Generally, every company strives to obtain optimal profits.

Obtaining optimal profits on an ongoing basis and increasing continuously is one of the management's goals in running the company. According to (Widiyanti, 2019) Profit growth is a change in financial statements per year.

According to Safitri (2016) Profit growth is defined as a change in the percentage increase in profits earned by a company. The growth of profit from one period to another is of concern to interested parties. In addition to the company's internal parties (management), information related to profit is also very important for external parties such as shareholders, creditors, and even government agencies.

Gunawan and Wahyuni (2013) explained that profit growth is influenced by changes in components in financial statements, such as changes in sales, changes in cost of goods sold, changes in operating expenses, changes in interest expenses, changes in income tax, changes in extraordinary posts and others as well as external factors such as price increases due to inflation and managerial freedom (managerial discretion) which allows managers to choose accounting methods and make estimates that can increase profits.

This is also a special concern for retail companies engaged in home appliances and lifestyle products, namely PT Ace Hardware Tbk which for 1 decade has been able to generate very volatile profits. The data can be shown in the table and figure below:

Table 1. Net profit data of PT Ace Hardware Tbk for the 2010-2021 period

Year	Net profit	Profit growth
2010	167.668	-
2011	279.504	66,7%
2012	428.849	53,43%
2013	503.004	17,29%
2014	548.892	9,12%
2015	584.873	6,55%
2016	706.150	20,73%
2017	780.686	10,55%
2018	976.273	25,05%
2019	1.023.636	4,85%
2020	731.310	-28,55%
2021	718.802	-1,71%

Source: Data processed from PT Ace Hardware Tbk Financial Statements (2021)

Based on the table above, seen in the nominal net profit column, the company actually continues to get net profit every period but when viewed from the growth of its profit, it appears that the profit growth at PT Ace Hardware Tbk from 2010-2021 is very volatile, from 2010 to 2011 profit growth of 66.7% but in 2011 - 2012 the percentage of profit decreased by 13.27%, in 2013 there was a decline in profit growth again by only 17.29% from 2012, the decline occurred again in 2014 because profit only increased by 9.12%, in 2015 profit growth was only 6.55% there was a decrease from 2014, in 2016 it increased by 20.73%, in 2017 profit growth declined by 10.55%, in 2018 net profit rose to 25.05%, and in 2019 profit only increased by 4.85%, in 2020 net profit experienced a drastic decline at -28.55%. The decline in net profit growth can also be seen in the figure below:



Figure 1. Net profit growth data of PT Ace Hardware Tbk for the period 2010-2020

The figure above shows that the profit growth of PT Ace Hardware fluctuated from 2010 to 2020. Based on the picture above, the company's management must pay attention to accuracy in making decisions regarding profits, related to profit growth and factors that affect profit achievement. These factors include the value of sales that can be achieved and the management of company debt, the use of assets owned by the company. Some of these things can be achieved using financial ratios related to profit growth for profit-related decision making, according to the statement of Harahap (2010: 297) Financial ratios are numbers obtained from the results of the comparison of one financial statement account with another that has a relevant and significant relationship. This means that if the management will make decisions regarding profit growth, they can use the appropriate financial ratios. Financial ratios include current ratio, debt to equity ratio, return on equity and total asset turnover ratio.

The current ratio shows how much short-term debt is secured by current assets while the debt to equity ratio shows how much total equity is financed by total debt. The amount of Equity and the amount of debt proportional when used for the company's operations determine the company's ability to make a profit. Return on equity shows how much profit a company earns using total equity or the total of shareholders' investments

that the company has. Meanwhile, the Total asset turnover ratio provides information on how many times the turnover of total assets to generate sales in one period. The efficient use of assets shown by the high turnover of assets can determine the company's ability to make a profit through sales.

The differences in some research results make the discussion of determinants of profit growth based on financial ratios interesting to discuss. Yasin's research (2013) resulted in a significant effect on profit but in contrast to Agustina and Silvia's research (2012) where partially the current ratio did not have a significant effect on changes in profits. Meanwhile, Estininghadi's research (2018) resulted in a debt to equity ratio having a significant influence on profit growth but Yasin's research (2013) resulted in no significant effect of debt to equity ratio on profit.

Estininghadi's research (2018) resulted in total asset turnover having a significant influence on profit growth but in contrast to the results of Yasin's research (2013) where partially there was an insignificant influence of total asset turnover on profits. Perdana and Hartanti's research (2017) produced a return on equity that had a partial significant effect on changes in profits while the research of Sundari and Satria (2021) produced a return on equity that did not have a significant effect on profit growth.

METHODS

The research uses a quantitative approach. quantitative method is a method based on philosophical positivism aimed at describing and testing hypotheses made by researchers (Sugiyono, 2018: 15).

The company that is the object of this study is PT Ace Hardware Tbk. To obtain data and information in this study, the author has taken data through the site contained in the PT (www.acehardware.co.id). The data collection for this study was taken in November 2021. The population in this study is the entire financial report of PT Ace Hardware Tbk for the 2010-2020 period. In this study, the sample used was data derived from financial statements in the form of balance sheet statements and profit and loss at PT Ace Hardware Tbk for the 2010-2021 period.

The data analysis techniques used in this study are descriptive analysis, classical assumption tests (Normality, Multicoloniality, Heteroskedasticity, Autocorrelation) and hypothesis tests (t test and f test) using regression.

RESULTS

Descriptive statistics

Descriptive statistics are used to show the amount of data (N) used in a study and can be used to show each variable that has been processed using SPSS version 25, while the processed SPSS data in the form of Descriptive Statistics will be displayed sample characteristics used in the study, including: Number of data (N) Sample mean (mean), and Standard Deviation for each variable, as follows:

Table 2. Descriptive analysis results

	Descriptive Statistics		
	N	Mean	Std. Deviation
CR	12	618.5467	113.09317
DER	12	25.1333	6.10921
ROE	12	21.2208	4.39965
TATO	12	1.4242	.31598
PERTLABA	12	16.0475	24.71983
Valid N (listwise)	12		

Source: Data processed

Based on the results of the descriptive statistical analysis test in the table above, it can be seen that: CR (Current Ratio) shows a value of 618.5467 with a standard deviation of 113.09317. The Debt to Equity Ratio (DER) during the observation period from 2011-2021 was 25,133 with a standard deviation of 6.10921. The return on equity (ROE) during the observation period from 2011-2021 was 21.2208 with a standard deviation of 4.39965. TATO (Total Asset Turn Over) shows a value of 1.4242 with a standard deviation of 0.31598. Profit growth showed a value of 16.0475 with a standard deviation of 24.71983.

If the standard deviation value is greater than the mean value, then it indicates a bad result. Because the standard deviation is a very high storage mirroring, so the spread of data shows abnormal results, causing bias. Conversely, if the standard deviation is less than the mean value, then it indicates a good result.

Test classical assumptions

Normality test

Table 3. Normality test results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		12
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	11.80425272
Most Extreme Differences	Absolute	.110
	Positive	.110
	Negative	-.084
Test Statistic		.110
Asymp. Sig. (2-tailed)		.200 ^{c,d}

- a. Test distribution is Normal.
 - b. Calculated from data.
 - c. Lilliefors Significance Correction.
 - d. This is a lower bound of the true significance.
- Source: Data processed

From these results, it is known that the residual significance value is 0.2, the Kolmogorov Smirnov value of the profit growth variable (Y), the Current ratio variable (X1), the debt to equity ratio variable (X2), the return on equity variable (X3), and the total assets turnover variable (X4) and the residual value is greater than >0.05, then the data is said to be normal or meets the normality requirements.

Based on the results of multicollinearity testing

Multicollinearity test

Table 4. Multicollinearity test results

Model	Coefficients^a		
	Collinearity Statistics		
		Tolerance	VIF
1	(Constant)		
	CR	.634	1.577
	DER	.616	1.625
	ROE	.529	1.890
	TATO	.376	2.662

a. Dependent Variable: PERTLABA
Source: Data processed

in the table above, the tolerance value of the variable and the value of the Variance Inflation Factor (VIF) does not occur symptoms of multicollinearity so that it can be used to predict profit growth during the observation period.

Heteroskedasticity test

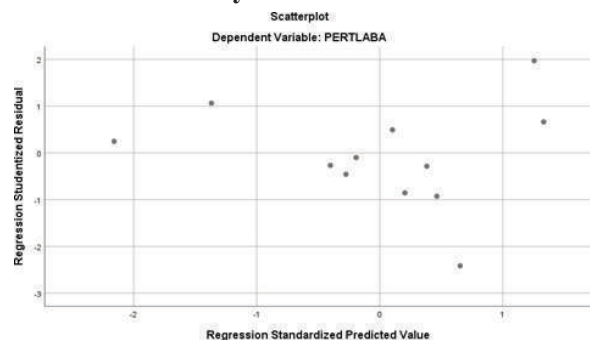


Figure 2. Heteroskedasticity test results

Based on the figure above, it can be seen that the dots spread above the number 0 or below the number 0 on the Y axis and do not form a certain pattern, the spread of these points does not form any pattern. This shows that heteroskedasticity does not occur.

Autocorrelation Test

regression coefficient is minus (-), it can thus be said that the current ratio (X1) negatively affects profit growth (Y). so the regression equation is $Y = 41.605 - 0.062X$.

a= constant number of unstandardized coefficient. In this case the value is 93,765. This number is a constant number which means that if there is no

Table 5. Autocorrelation Test Results

Model	R	Model Summary ^b			
		R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.879 ^a	.772	.642	14.79741	1.986

a. Predictors: (Constant), TATO, CR, DER, ROE

b. Dependent Variable: PERTLABA

Source: Data processed

Based on the table 5, the calculation results have met the conditions for no autocorrelation, namely $(du < 1.986 < 4-du)$ ($1.986 < 2.3587$). Then the regression model in the study is not autocorrelation.

Regression test

Simple linear regression

debt to equity ratio (X2) then the consistent value of profit growth (Y) is 93,765.

b= regression coefficient number. The value is -3,092. This figure means that every addition of 1% debt to equity ratio (X2), profit growth (Y) will increase by -3,092. Since the value of the regression coefficient is minus (-), it can thus be

Table 6. Simple linear regression test results current ratio to profit growth

Model		Coefficients ^a					Collinearity Statistics	
		Unstandardized Coefficients B	Standardized Coefficients Std. Error	Adjusted R Square	t	Sig.	Tolerance	VIF
1	(Constant)	54.577	41.605		1.312	.219		
	CR	-.062	.066	-.285	-.940	.369	1.000	1.000

a. Dependent Variable: PERTLABA

Source: Data processed

a= constant number of unstandardized coefficient. In this case the value is 41.605. This number is a constant number which means that if there is no Current Ratio (X1) then the consistent value of profit growth (Y) is 41.605.

b= regression coefficient number. The value is -0.062. This figure means that every addition of 1% of the current ratio (X1), the profit growth (Y) will increase by -0.062. Since the value of the

said that the debt to equity ratio (X2) negatively affects profit growth (Y). so the regression equation is $Y = 93.765 - 3.092X$.

a=constant number of unstandardized coefficient. In this case the value is -60.876. This number is a constant number which means that if there is no Return on equity (X3) then the consistent value of profit growth (Y) is -60,876.

b= regression coefficient number. The value is

3,625. This figure means that every addition of 1% Return on equity (X3) rate, then profit growth (Y) will increase by 3,625. Since the value of the regression coefficient is positive (+), it can thus be said that Return on equity (X3) has a positive effect on profit growth (Y). so the regression equation is $Y = -60.876 + 3.625X$.
 a= constant number of unstandardized coefficient. In this case the value is -41.416. This number is a constant number which means that if there is

no Total assets turnover (X4) then the consistent value of profit growth (Y) is -41,416.
 b= regression coefficient number. The value was 40,349. This figure means that every addition of 1% of the total assets turnover rate (X4), the profit growth (Y) will increase by 40,349. Since the value of the regression coefficient is positive (+), it can thus be said that Total assets turnover (X4) has a positive effect on profit growth (Y). so the regression equation is $Y = -41.416 + 40.349X$.

Table 7. Results of simple linear regression test of debt to equity ratio to profit growth

Model		Coefficients ^a				Collinearity Statistics		
		Unstandardized Coefficients B	Standardized Coefficients Std. Error	Adjusted R Square	t	Sig.	Tolerance	VIF
1	(Constant)	93.765	21.297		4.403	.001		
	DER	-3.092	.825	-.764	-3.747	.004	1.000	1.000

a. Dependent Variable: PERTLABA
 Source: Data processed

Table 8. Results of simple linear regression test return on equity against profit growth

Model		Coefficients ^a				Collinearity Statistics		
		Unstandardized Coefficients B	Standardized Coefficients Std. Error	Adjusted R Square	t	Sig.	Tolerance	VIF
1	(Constant)	93.765	21.297		4.403	.001		
	ROE	3.625	1.358	.645	2.670	.023	1.000	1.000

a. Dependent Variable: PERTLABA
 Source: Data processed

Table 9. Results of simple linear regression test total assets turnover against profit growth

Model		Coefficients ^a				Collinearity Statistics		
		Unstandardized Coefficients B	Standardized Coefficients Std. Error	Adjusted R Square	t	Sig.	Tolerance	VIF
1	(Constant)	-41.416	30.858	-1.342	4.403	.209		
	TATO	40.349	21.195	.516	1.904	.086	1.000	1.000

a. Dependent Variable: PERTLABA
 Source: Data processed

Multiple linear regression

Table 10. Multiple regression test results

Model		Coefficients ^a				
		Unstandard- ized Coefficients B	Standardized Coefficients Std. Error	Adjusted R Square	t	Sig.
1	(Constant)	116.600	72.201		1.615	.150
	CR	-.066	.050	-.303	-1.338	.223
	DER	-3.023	.931	-.747	-3.248	.014
	ROE	2.313	1.394	.412	1.659	.141
	TATO	-22.910	23.036	-.293	-.995	.353

a. Dependent Variable: PERTLABA
Source: Data processed

In the Coefficients table, you can find out the value of column B, the first row shows the constant (a) and the next row shows the Coefficients of independent variables (b1b2). By looking at the table above, a multiple linear regression equation can be arranged as follows $Y = 116,600 - 0.066X_1 - 3.023X_2 + 2.313X_3 - 22.910X_4$.

Based on the table of t tests above, the following results are obtained:

1. The current ratio research variable as an independent variable shows the statistical results of the T- count value of 1.338, while the T-table with a significant rate of 5% (0.05). By making a comparison, namely

Hypothesis test t-test (Partial)

Table 10. Multiple regression test results

Model		Coefficients ^a				
		Unstandard- ized Coefficients B	Standardized Coefficients Std. Error	Adjusted R Square	t	Sig.
1	(Constant)	116.600	72.201		1.615	.150
	CR	-.066	.050	-.303	-1.338	.223
	DER	-3.023	.931	-.747	-3.248	.014
	ROE	2.313	1.394	.412	1.659	.141
	TATO	-22.910	23.036	-.293	-.995	.353

a. Dependent Variable: PERTLABA
Source: Data processed

Thitung $1.338 < T_{tabel} (2.365)$ then H_0 was accepted and H_a was rejected. The signifkan value is 0.223 where the value of $0.223 > 0.05$ is insignificant. It can be concluded that the variable current ratio has no effect on profit growth.

2. The debt to equity ratio research variable as an independent variable shows the statistical results of the T-count value of 3.248 , while the T-table with a significant rate of $5\% (0.05)$. By making a comparison, namely Thitung $3,248 > T_{tabel} (2,365)$, H_0 was accepted and H_a was rejected. A signific value of 0.014 where the value is $0.014 < 0.05$ is significant. It can be concluded that the debt to equity ratio variable affects profit growth.
3. The return on equity research variable as an independent variable shows the statistical results of the T-count value of 1.659 , while

the T-table with a significant level of $5\% (0.05)$. By making a comparison, namely Thitung $1.659 < T_{tabel} (2.365)$ then H_0 is accepted and H_a is rejected. The signifkan value is 0.141 where the value is $0.141 > 0.05$ Significant. It can be concluded that the variable return on equity has no effect on profit growth.

4. The research variable Total Assets turnover as an independent variable shows the statistical results of the T-count value of 0.995 , while the T-table with a significant rate of $5\% (0.05)$. By making a comparison, namely Thitung $0.995 < T_{tabel} (2.365)$ then H_0 is accepted and H_a is rejected. The signifkan value is 0.353 where the value of $0.353 > 0.05$ is significant. It can be concluded that the variable Total Asset Tturnover has no effect on profit growth.

Test F (Simultaneous)

Table 12. Test F

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5189.025	4	1297.256	5.925	.021b
	Residual	1532.744	7	218.963		
	Total	6721.769	11			

a. Dependent Variable: PERTLABA

b. Predictors: (Constant), TATO, CR, DER, ROE

Source: Data processed

Based on the above calculations obtained the results of F table can be searched statistical table at a significance of 0.05 or 5% then can be obtained F count of 5.925. It can be known that $F_{hitung} 5.925 > F_{tabel} 4.12$ and systematically with a significant value of 0.021. Since the significant value of $0.021 < 0.05$, thus H_03 is rejected and H_a3 is accepted. Then the Current ratio variable (X1), debt to equity ratio variable (X2), return on equity variable (X3), and total assets turnover variable (X4) simultaneously (together) affect the profit growth variable (Y) at PT Ace Hardware Tbk.

Coefficient of determination

Table 13. Coefficient of determination test results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.879 ^a	.772	.642	14.79741

a. Predictors: (Constant), TATO, CR, DER, ROE
Source: Data processed

Based on the table above, it is known that the value of the coefficient of determination or R Square is 0.772 or equal to 77.2%. This figure means that the Current ratio variable (X1), the debt to equity ratio variable (X2), the return on equity variable (X3), and the total assets turnover variable (X4) simultaneously (together) affect the profit growth variable (Y) by 77.2% while the remaining 22.8% is influenced by other variables outside this regression equation or variables that are not studied.

DISCUSSION

Effect of Current Ratio on profit growth Based on the results of partial statistical calculations (Test t) conducted by the author, H_0 was accepted and H_a was rejected and the results of the study obtained, namely the current ratio, did not affect profit growth because the current ratio variable showed a figure of $0.223 > 0.05$.

Effect of Debt to equity Ratio on profit growth. Based on the results of partial statistical calculations (Test t) conducted by the author, H_0

was rejected and H_a was accepted and the results of the study obtained, namely the Debt to equity Ratio, affected profit growth because the variable Debt to equity Ratio showed a figure of $0.014 < 0.05$.

Effect of return on equity on profit growth. Based on the results of partial statistical calculations (Test t) conducted by the author, H_0 was accepted and H_a was rejected and the results of the study obtained, namely return on equity did not affect profit growth because the variable return on equity showed a figure of $0.141 > 0.05$.

Effect of total assets turn over on profit

growth. Based on the results of partial statistical calculations (Test t) conducted by the author, H_0 was accepted and H_a was rejected and the results of the study obtained, namely total assets turn over did not affect profit growth because the variable total assets turn over showed a figure of $0.353 > 0.05$.

Effect of Current Ratio, debt to equity ratio, return on equity ratio, and total assets turnover on profit growth. Based on the results of simultaneous statistical calculations (Test F) conducted by the author, H_0 was rejected and H_a was accepted and the research results obtained, namely Current Ratio, debt to equity ratio, return on equity ratio, and total assets turnover affected profit growth because the variables Current Ratio, debt to equity ratio, return on equity ratio, and total assets turnover showed $0.021 < 0.05$. the Current ratio variable (X1), the debt to equity ratio variable (X2), the return on equity variable (X3), and the total assets turnover variable (X4) simultaneously (together) affect the profit growth variable (Y) by 77.2%.

CONCLUSION

The Current Ratio has no effect on profit growth because the variable current ratio shows a figure of $0.223 > 0.05$. Debt to equity Ratio affects profit growth because the variable Debt to equity Ratio shows $0.014 < 0.05$. Return On Equity has no effect on profit growth because the variable return on equity shows a figure of $0.141 > 0.05$. Total assets turn over has no effect on profit growth because the variable total assets turn over shows a figure of $0.353 > 0.05$. Current Ratio, debt to equity ratio, return on equity ratio, and total assets turnover affect profit growth because the variables Current Ratio, debt to equity ratio, return on equity ratio, and total assets turnover show $0.021 < 0.05$. the Current ratio variable (X1), the debt to equity ratio variable (X2), the return on equity variable (X3), and the total assets turnover variable (X4) simultaneously (together) affect the profit growth variable (Y) by 77.2% while the remaining 22.8% is influenced by other variables outside this regression equation or variables that are not studied.

ACKNOWLEDGEMENT

Thank's and appreciate to lectures, Unpam colleagues who has provided time to discuss and provide useful feedback, and Faculty of Economics and Business Pamulang University who provided support until this research was carried out.

REFERENCES

- Adisetiawan, R. (2012). Analisis Pengaruh Kinerja Keuangan dalam Memprediksi Pertumbuhan Laba. *Jurnal Aplikasi Manajemen*, 10(3), 669-681.
- Agustina dan Silvia. (2012). Pengaruh Rasio Keuangan Terhadap Perubahan Laba Perusahaan Manufaktur Yang Terdaftar di Bursa Efek Indonesia. *Jurnal Wira Ekonomi Mikroskil*, 2 (2), 113-123.
- Estininghadi, S. (2018). Pengaruh Current Ratio (CR), Debt Equity Ratio (DER), Total Assets Turn Over (TATO) dan Net Profit Margin (NPM) Terhadap Pertumbuhan Laba Pada Perusahaan Property and Estate Yang Terdaftar di Bursa Efek Indonesia. *Jurnal Ekonomi Dan Bisnis*. Vol. 2 No. 1 Mei 2018, 82-91.
- Gunawan, A dan Wahyuni, S. F. (2013). Pengaruh Rasio Keuangan Terhadap Pertumbuhan Laba pada Perusahaan Perdagangan di Indonesia. *Jurnal Manajemen & Bisnis*, 13(01), 63-85.
- Harahap, S. S. (2016). Analisis Kritis Laporan Keuangan. Jakarta: PT Raja Grafindo Persada.
- Khaldun, K. I. 2014. The Influence of Profitability Fand Liquidity Ratio on The Growth of Profit of Manufacturing Companies. *International Journal of Economics, Commerce and Management*. Vol. II, Issue 12, Dec.
- Kristianti, A. (2021). Pengaruh Modal Kerja dan Penjualan Terhadap Laba Bersih Pada Perusahaan Otomotif Yang Tercatat di Bursa Efek Indonesia Periode 2013-2017. *Jurnal Mahasiswa Akuntansi Unsuraya*. Vol.1, No.1, Januari 2021. 60-76.
- Perdana, S., & Hartati, E. (2017). Pengaruh Opm, Roe Dan Roa Terhadap Perubahan Laba Pada Perusahaan Lembaga Pembiayaan di Indonesia. *SOSIO-E-KONS*, Vol. 9 No. 1 April 2017, hal. 79-85.
- Safitri, I. L. K. (2016). Pengaruh Rasio Keuangan terhadap Pertumbuhan Laba pada Perusahaan Manufaktur Sektor Industri Konsumsi yang terdaftar Di Bursa Efek Indonesia (Studi Kasus pada Perusahaan Kalbe Farma Tbk Periode 2007. *Jurnal Akuntansi dan Bisnis*, 2(2), 137-154.
- Sihombing, H. (2018). Pengaruh Current Ratio dan Debt to Equity Ratio Terhadap Pertumbuhan Laba Pada Perusahaan Properti dan Real Estate yang Terdaftar di Bursa Efek Indonesia Periode 2010-2014. *Media Studi Ekonomi*. Vol. 21, No.1, 2018.
- Sugiyono. (2018). Metode penelitian kuantitatif, kualitatif, dan R&D. Bandung: Alfabeta.
- Sundari, R., & Satria, M. R. (2021). Pengaruh Return on Asset Dan Return on Equity Terhadap Pertumbuhan Laba Pada Perusahaan Sub Sektor Wholesale Yang Terdaftar di Bursa Efek Indonesia. *Land Journal*, 2(1), 107-118. <https://doi.org/10.47491/landjournal>.

v2i1.1122.

Widiyanti. (2019). Pengaruh Net Profit Margin, Return on Assets Dan Debt to Equity Ratio Terhadap Pertumbuhan Laba Pada Perusahaan LQ-45. *Jurnal Riset Akuntansi dan Keuangan*. Vol 7 (3): 545–54.

Wijaya, A. P. (2013). Analisis Rasio Keuangan dalam Merencanakan Pertumbuhan Laba:

Perspektif Teori Signal. *Kajian Ilmiah Mahasiswa Manajemen*, Vol. 2, No. 2, 2013.

Yasin, F. (2013). Pengaruh Current ratio, Debt to equity ratio, Total asset turnover, dan Net profit margin terhadap Laba pada perusahaan Food & Beverages yang terdaftar di Bursa Efek Indonesia. *Journal Artikel Ilmiah Mahasiswa UNEJ*, Hal 1-5, Vol 2, No 1.

CALL FOR PAPERS

Jurnal MANDIRI: Ilmu Pengetahuan, Seni, dan Teknologi, is an independent journal that contains the results of research, studies, and scientific works as well as community service in various fields of Science, Arts, and Technology. We invite all academics, writers, and researchers to submit their writings or scientific works to be published in **Jurnal MANDIRI**. His plans for the next Issue Vol. 7, No. 1, will be published in June 2023. Alhamdulillah, as of December 13, 2019, starting with Vol. 3, No. 1, June 2019, **Jurnal MANDIRI** ranks up to **SINTA 4**.

THE TERMS AND CONDITIONS OF WRITING:

1. The article is an original scientific work that has never been published.
2. Articles are written in English.
3. Articles include: Title, Author's Full Name, Author's Institution, Author's Email, **Abstract, Keywords, INTRODUCTION, METHODS, RESULTS, DISCUSSION, CONCLUSION, ACKNOWLEDGEMENT, and REFERENCES.**
4. Articles are submitted in **Microsoft Word** via **Make A Submission** at the link: <http://jurnalmandiri.com/index.php/mandiri/about/submissions>.
5. Writing templates in **Microsoft Word** can be downloaded from the **Jurnal MANDIRI** website: **www.jurnalmandiri.com**.
6. Confirmation of submission of written manuscripts can be via email: **jurnalmandiri@lkd-pm.com** or via cellphone number: **+62 859-6040-1451**.



DECISION OF THE EDITORIAL BOARD:

Editors have the right to select and edit incoming manuscripts. For further information on the certainty of the process will be notified to the author. The substance of the writing or article is entirely the responsibility of the author. Manuscripts that are not loaded will not be returned.

Editor's Address: JURNAL MANDIRI :

LKD-PM, Jalan Kiwi IV No. 7, Griya Pamulang Estate, Pamulang Timur, Tangerang Selatan 15417

Website: www.jurnalmandiri.com

E-mail: jurnalmandiri@lkd-pm.com

Telp./Faks.: 021-74771224

Contact Person: Staf Redaksi (+62 859-6040-1451)

