Optimization of Plantation Industry through Communication Management Implementation (Case Study)

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Abstract
The oil palm plantation industry has contributed greatly to the positive growth of the Gross Domestic Product (GDP) of the agricultural sector in Indonesia. With the application of communication management, it can encourage the development of the potential of this industry in North Sumatra. Plantation organization as a framework with clear definitions of the division of tasks, authorities and responsibilities both internally and externally in a modern management system. The method of analysis in this study uses Modern Organization Theory and Analytical Hierarchy Process (AHP) method with variables covering environmental aspects, social aspects, institutional aspects, and economic aspects. This research presents a case study of Limited Liability Company Perkebunan Nusantara (PTPN) IV based in North Sumatra Province, Indonesia. This study aims to identify management problems in plantation industrial management policies to develop their potential and to analyze alternative policies in plantation management in North Sumatra.

Keywords: Plantation Industry; Communication Management; Modern Organization Theory; Analytical Hierarchy Process Method.

1. Introduction
In North Sumatra, the plantation industry has a strategic position and has an impact on the national economy. An important role in the agricultural sector is played by the plantation sector, which is one of the agricultural sub-sectors. The plantation sub-significant sector's roles include supplying the industrial sector with raw materials, absorbing labor, and contributing to foreign exchange (Br Bangun, 2017). Data from the 2016 Central Statistics Agency (BPS) suggest that the plantation sub-sector contributes 44.73 percent of the overall GRDP of the agricultural sector to the Gross Regional Domestic Product (GRDP).

According to BPS numbers, palm oil is still one of Indonesia's key commodities and the largest foreign exchange contributor. Palm oil's foreign exchange contribution is just less than coal (US$ 18.9 billion or Rp265 trillion equivalent in 2018. India (6.71 million tonnes), the European Union (4.78 million tonnes) and China are the three most important export destinations for Indonesian palm oil (4.41 million tonnes). The concession area for PTPN IV oil palm products in 2018 was 169,010.14 ha, consisting of Active Plants covering an area of 116,322.00 ha, Immature Plants covering an area of 18,379.00 ha, New Plants and Re-plants covering an area of 3,050.00 ha, as well as other areas covering an area of 31,259.14 ha.

Oil palm, where North Sumatra is identified as one of the largest oil palm commodity production areas, is one of the prima donna of the plantation sub-sector (Alaes). According to the records of the Provincial Plantation Service of North Sumatra (2020), growth in the area of mustard palm plantations has reached 1.49 percent per annum in the last four years. The oil palm area reached 1,206,166.76 hectares in 2015 and increased to 1,260,080.95 hectares in 2018, according to statistical data. The data indicate that in the last four years, palm oil production, especially in the form of Fresh Fruit Signs (FFB) production, has shown a positive trend, reaching 3.37 percent per year. FFB production in 2015 was 18,512,737.25 tons, based on records, and rose to 20,393,407.72 tons in 2018.
Table 1. Plantation Area and Production of Oil Palm Plantation Crops

<table>
<thead>
<tr>
<th>YEAR</th>
<th>AREA</th>
<th>PRODUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>494,361,69</td>
<td>1,682,290,52</td>
</tr>
<tr>
<td>2017</td>
<td>429,261,31</td>
<td>1,655,352,35</td>
</tr>
<tr>
<td>2016</td>
<td>417,809,00</td>
<td>5,775,631,82</td>
</tr>
<tr>
<td>2015</td>
<td>395,489,00</td>
<td>5,101,384,09</td>
</tr>
</tbody>
</table>

Source: BPS 2020

While North Sumatra has a fairly large potential for oil palm plantations, the average productivity is relatively lower than that of Malaysia and Thailand. Data reached 21.77 tonnes/ha in Malaysia between 2008 and 2012, 17.12 tonnes/ha in Thailand, but just 16.87 tonnes/ha in Indonesia (Siahaan, 2016). The low productivity problem is a common problem for Indonesia's oil palm plantations. Many studies are therefore needed to enhance it (Juliza Hidayati, 2016).

The Perkebunan Nusantara (PTPN) IV Limited Liability Company is one of the companies in North Sumatra engaged in the agro-industrial sector involved in the planting and processing of oil palm and tea products, including processing areas and crops, nurseries and production plant maintenance, processing of commodities into raw materials from various industries, marketing of commodities. PTPN IV has 30 Business Units managing the cultivation of Oil Palm and 1 Business Unit managing the cultivation of Tea and 1 Oil Palm Plasma Plantation Unit and 1 Business Unit Workshop (PMT Dolok Ilir) spread over 9 districts in North Sumatra. The total area protected by the PTPN IV concession is 175,735 ha, of which about 96% is the oil palm area. The region for palm oil (TM) production is 116,322 ha. The Indonesian Palm Oil Association (GAPKI) stated that 70% of the output of palm oil in 2018 was allocated to meet export needs and the remaining 30% was allocated for domestic consumption. During 2018, the amount of Indonesia's foreign exchange contributions to palm oil reached US$ 20.54 billion or IDR289 trillion equivalent.

PTPN IV runs good corporate governance (GCG) practices that are relevant as standards for company operations and decision-making based on the principles of good corporate governance, namely openness, accountability, accountability, independence and fairness. PTPN IV claims that the introduction of the framework to manage that well will have an effect on improving the quality of work for workers, enhancing the profitability of the business as a whole, as well as increasing the value added that is sustainable by a company in the eyes of investors and shareholders with a strong emphasis on the interests of other stakeholders. PT Perkebunan Nusantara IV is a clear and continuous GCG implementation in compliance with the Regulation of the BUMN Minister No.PER-01/MBU/2011 concerning the application of the Rules of the good Corporate Governance (GCG), with permanent attention to the requirements and standards applicable, as well as the basic corporate budgeting. (PTPN-IV, 2018).

2. METHODOLOGY
This study aims to identify management problems in policies for the management of the plantation industry; to improve the capacity of plantations in North Sumatra; to examine policy alternatives for the management of plantations in North Sumatra. Though descriptive, qualitative is the approach used.

Analytical Hierarchy Process (AHP) is basically a systematic methodology for decision-making. The working theory of AHP is to simplify and organize a complex problem in a hierarchy that is not structured, strategic and dynamic in its components. A numerical value is then subjectively applied to the degree of importance of each variable in relation to the relative importance of the variable relative to other variables. A synthesis is carried out from these different factors to evaluate the variables that have high priority and play a role in affecting the system's performance (Amborowati, 2004).

The object of this research is focused on the performance of PTPN IV in 2018 by collecting data from primary and secondary sources. The data in 2018 will be a sample to describe the analysis of PTPN IV communication management which includes four aspects, namely environmental aspects, social aspects, institutional aspects, and economic aspects.
In addition, an organization consists of many components that are interrelated with each other, depending on each other in modern organizational theory or sometimes referred to as open theory and systems analysis, such that it becomes an inseparable unit in an organization or business. It focuses on two aspects in modern organizational theory: first, overall planning and integration. Second, it is complex, appears to be horizontal, and has a number of dimensions.

In modern organizational theory, scholars see from two points of view (Amborowati, 2004). First, the company is a unit that has a purpose or is referred to as a goalist approach. This approach focuses on the division of labor in the achievement of organizational objectives, job processes set up to achieve that objective, and so on. Second, the approach that looks at the relationship between elements, both within the organization and with the surrounding environment, is called a systemic approach.

The business seeks to empower existing goods and services (continuous improvement) and innovation (breakthrough strategy). Numerous programs such as TQM (Total Quality Management) and BPR (Business Process Reengineering) have resulted in this. However firms realize that, depending on human factors, such as talents, behaviors and organizational culture, such systems succeed or fail. What is more relevant is (Ambarwati, 2018):

- cope with rapid and unexpected changes where existing ‘programmed’ responses are inadequate,
- provide flexibility to cope with dynamically changing situations,
- allow front-line staff to respond with initiative based on customer needs vs. being constrained by business processes established for different circumstances.

Complete organization science should include: philosophy, methodology, theory and application, and organization theory takes place on the third layer, under the direction of methodology, it builds various management theories, management methods and management techniques by management practices (Ivanko, 2013). Implementation of management methods and organization resources considering interests of all participants of energy sector is the key factor to achieve national and regional energy efficiency targets by 2020 considering (Onday, 2016).

3. Result and Discussion
3.1 Communication Management
Communication management is defined as a process using human, economic and technological resources to form communication between companies, companies and the public Communication (Geipele, 2016). Communication management is a term that incorporates management and communication principles, so communication management is a mixture of concepts of communication and leadership that are implemented in different communication environments (Soedarsono, 2009).
This description indicates that corporate management's precision is very closely linked to the processes within an organization of information systems. The way organizations try to solve their problems is affected by organizational information systems. Since the business consists of a group of individuals, individual information processing issues are part of the organization's major problem (Hasmawati, 2018).

Knowledge, skills and attitudes are also factors which affect communication management. Knowledge management, skills and attitudes have a positive and important impact on employee performance (Sahputra, 2018). Furthermore, several partnerships use project portfolio management with access to some assets only for several companies in a concentrated situation. The process needs to be modified as a restriction on the achievement of the current framework in order to boost the performance. By using a default number of assets, different behaviors can be best handled by using portfolio management (Latief et.al., 2019). The working environment must also be taken into account. The working environment has a positive impact on the performance of employees. Mosquitos, pungent gas odors, indoor light, air vents and working facilities can disrupt the workplace (Daud et.al., 2019). Job satisfaction impacts employee performance positively and dramatically, and organizational culture has a direct influence on employee performance (Haryati et.al., 2019).

Organizational independent commitment has a positive and significant effect on economic performance, organizational commitment to employees has a positive and significant effect on environmental performance, organizational commitment has a positive and significant effect on social performance, organizational commitment has a positive and significant effect on the sustainability of company performance (Abduloh et.al. 2020). In modern organisations, management strategy will always exist. As a management tool for achieving its objectives, communication management is a very important factor. To accomplish the goals of the communication management organization, it is a fundamental part of the communication strategy which works to optimize human resources and technology (Sahputra, 2020). In more simple terms, communication management in the field of plants provides the model to maximize each person in the organization, using a systemic and tactical communication model, to optimize their respective roles and resource in the organizational management of all communications operations.

**Figure 2. Communications Management Framework**

According to Robert E. Simmons in Soedarsono (2009), communication management is applied to the organization through managerial steps, namely:

a. Information simplification. The information comes very much from different sources in the new era of the industrial revolution 4.0. In this case, it is important to categorize the details to be more meaningful. In this situation. Each individual in the organization can then better understand instructions and function in accordance with organizational policies.
b. The collection of information by distinguishing information that is really important, important, less important for the organization and not important. The work can be done based on goals with this selected information.

c. Perform analyzes in order to interpret facts and explain what has been done, by concentrating on integrated phenomena and events and principles. The findings of this study should be further clarified in particular so that the workers can be better understood and, under some circumstances, conceptualized at the same time.

d. Formulate a plan. The fourth step is to establish a strategy for the preparation and execution of projects. This stage is extremely important because it determines the organization's success in achieving its objectives.

3.2 Communication Management Plantation Implementation

PTPN IV is committed to carrying out good corporate governance practices as a guide in carrying out company operations and making important decisions based on GCG principles, namely transparency, accountability, responsibility, independence and fairness. With this GCG, PTPN IV believes that it can improve the quality of work for employees, increase the overall performance of the company, and increase the sustainable added value of a company in the eyes of investors and shareholders while still paying attention to the interests of other stakeholders (Soedarsono, 2009). The GCG targets are 1. Optimizing the company's value in terms of strong national and international competitiveness so that it can maintain; existence and sustainable living to achieve the company's goals and targets; 2. Promote professional, efficient and effective management of companies as well as strengthen the functions and independence of the corporate bodies; 3. Encourage corporate bodies to take decisions and take actions based on high moral standards and compliance with law and regulation, as well as knowledge of corporate social responsibility to stakeholders and corporate environmental sustainability; 4. Improving the national economy contribution of the company; 5. Enhance a favorable investment creation ecosystem (PTPN-IV, 2018).

This goal is summarized in the four aspects that have been addressed, namely environmental, social, institutional and economic aspects. The four aspects were choo to simplify complex information via the AHP process.

<table>
<thead>
<tr>
<th>Environmental Aspect</th>
<th>Social Aspect</th>
<th>Institution Aspect</th>
<th>Economic Aspect</th>
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<tbody>
<tr>
<td>Environmental funds and Rp6.46 billion investment include environmental certification, support for various studies and research, including the use of waste water for the palm oil industry</td>
<td>The distribution of loan funds was Rp.11.12 billion and the Corporate Social Responsibility funds were channeled Rp.4.23 billion and the environmental development program was Rp.23.58 billion. The total amount of Rp. 38,93 billion was 7.8% more than the net profit achieved.</td>
<td>Institutionally, PTPN is a subsidiary of the Government of the Republic of Indonesia owned by state-owned enterprises (BUMN) (10%) and PTPN III (90 percent). PTPN IV does not trade its stock exchange shares.</td>
<td>The net profit was Rp 495,86 billion for the year. The average production per hectare is IDR 2,821,635 with a total plantation area of 175,735 hectares.</td>
</tr>
<tr>
<td>Environmental problems are a form of anticipation in environmental management. The main objective must be to ensure the connection with environmental sustainability.</td>
<td>The social aspect of the environment in which the plantation operates is the purpose for the development of social welfare as well as the development of institutions and employees.</td>
<td>During the current year the total state contribution was Rp 528,298,450,623. This is higher than the net profit in the same year.</td>
<td>The ratio of net profit to the area cultivated is a very small amount for the company. But on the other hand, the welfare of employees at PTPN IV is still guaranteed.</td>
</tr>
</tbody>
</table>

| *Transparency * Fairness *Independency *Responsibility *Accountability | Good Corporate Governance | *philosophy *methodology *theory and application *organization theory |
| Financial Sources | Human Resources | Engineering Sources |
| Dinamic, the relationship between elements | Planning and Cohesiveness |

4. Conclusion
In the period 2015 to 2018, in general there has been a decline in smallholder plantation production. However, from 2017 to 2018 there was an increase in both production and land area. This has become one of the problems in the plantation sector in North Sumatra. PTPN IV as a subsidiary of State-Owned Enterprises (BUMN) manages plantations with Good Corporate Governance as a guide in carrying out company operations and making important decisions. The management of plantation communication can be an alternative for developing plantation capacity by implementing human, financial, and technological resources to communicate between businesses, enterprises, and the public. In addition, North Sumatra's plantation management policy alternatives should put more emphasis on improving the social welfare of the communities where plantations are located, as a strategic policy for the potential sustainability of plantation management in North Sumatra.

5. Suggestion
In order to increase the capacity of plantations in North Sumatra, this study recommends improving communication management. Management of Plantation Communication refers to the creation of a business information system by enabling all existing tools within the organization. All of the company's human resources are handled by approaches to information management, skills management, and attitude management in internal management that are connected to job satisfaction.

References


Sahputra, D., Manajemen Komunikasi Suatu Pendekatan Komunikasi. JURNAL SIMBOLIKA: Research and
Biography

Dedi Sahputra is a lecturer at Medan Area University in the communication science study program. He holds a Bachelor of Communication degree from the “Pembangunan” School of Communication Studies, a Master of Arts in Islamic Communication from the State Islamic Institute of North Sumatra and a Doctor of Islamic Communication from the State Islamic University of North Sumatra. He has written in several journals and books, some of which are themed on Communication Management, Mass Communication, Political Communication, and Communication Systems. He is also interested in the study of Islam, both in terms of management, communication, and theology. Selan as a lecturer, he is also known as a journalist who writes for the mainstream mass media in North Sumatra, the Waspada Medan Daily. He is also a major national journalist assessor who tests journalists' competence in various regions in Indonesia.

Bahrum Jamil was born on January 26, 1963, in Medan. I graduated from the Department of Communication of the Faculty of Social and Political Science in 1987 and from the Master's Program in Public Administration at Medan Area University in 2009. In 1987, at the Faculty of Social and Political Sciences, Medan Area University, I began my career as a teacher. As an instructor, in many manufacturing companies as well as hospitals and hotels, I have had the opportunity to become an HR specialist. I am always invited to provide various organizations in different sectors with training, especially soft skills training. I also conducted practices as a consultant and trainer at various government departments after completing the Public Administration Program. Emphasis on public service and Quality Control Processes. In addition to teaching, I was able to provide students with practical examples in the area, according to the subjects I taught, especially in the Public Administration and Communication Studies Program.

Taufik Wal Hidayat was born on December 18, 1971, in Medan, North Sumatra Province, Indonesia. In 1997 he received a Bachelor's degree (S1) in Communication Science, Faculty of Social and Political Sciences (FISIP), University of Sumatra Utara (USU). In 2011, he completed his Master's degree in Public Administration (MAP) at the University of Medan Area (UMA) Postgraduate (PPs) and now, in 2021, he is completing his PhD (S3) in Communication at the Postgraduate Program at the State Islamic University of North Sumatra (UINSU) in Medan. Since 2007 until now as a lecturer in the communication science study program at FISIP UMA in 2019 until now he has been trusted as the administrator of the Center for Regional Policy Studies and Development at FISIP UMA. Apart from teaching, Taufik Wal Hidayat is also frequently asked to be a speaker at various journalism and mass media seminars and workshops held by a number of student press institutions in Medan. And starting in 2001 he was active as a journalist at the Analisa Daily and online media rekatamedia.com.

Ara Auza was born on October 3, 1989, in Binjai. Bachelor's degree from the Faculty of Social and Political Science of the Universitas of Sumatra Utara (USU) Department of Communication in 2011 and Master's degree in Communication Science, Faculty of Social and Political Science, Universitas of Sumatra Utara (USU) in 2014. In 2016, at the Faculty of Social and Political Science, Media Area University, I began my career as a teacher. I teach the course Marketing Contact and Public Cyber Relations.

Fauji Wikanda is a young lecturer in the Communication Science Program of Medan Area University. Fauji Wikanda holds a Bachelor's degree from the Department of Islamic Education, North Sumatra State Islamic Institute, Medan, and a Master's degree from the Department of Islamic Education, Postgraduate Program, North Sumatra State Islamic University, Medan. Meanwhile, the Doctoral degree was obtained from the Department of Communication and Islamic Broadcasting, Faculty of Da'wah and Communication, State Islamic University of North Sumatra, Medan. Fauji Wikanda currently teaches Islamic Religious Education in several Study Programs at the University of Medan Area. In addition, since 2019 he has been entrusted as secretary of the Medan Area University Taqwa Mosque Prosperity Agency. His research interests are in the field of Islamic Education and Organizational Communication Strategy.
Beltahmamero Simamora is a young lecturer and serves as the Secretary of the Public Administration Study Program at the University of Medan Area. He holds a bachelor degree from the Department of Governmental Science, Faculty of Social and Political Science at STPMD “APMD” Yogyakarta and a Master of Public Administration from Gadjah Mada University. He has taught courses in Management Information System and Quantitative Research Method for undergraduate. He has served as a member of the board of the Center for Regional Policy and Development Studies, Faculty of Social and Political Science, Medan Area University. His research interests include of Public Policy and Public Service.

Marlina Deliana was born on March 28, 1991, in Medan. Graduated with a Business Bachelor Degree from in University of Sumatera Utara (USU), Faculty of Social and Political Science in 2014. Get a Master of Business Administration in the University of Brawijaya, Faculty of Administration Science in 2019. She is now a lecturer in Medan Area University in the Faculty of Social and Political Science, Public Administration Program. She teaching Management Information System and Human Resources Management Courses