STRATEGIES FOR OPTIMIZING EFFICIENCY AND PRODUCTIVITY IN SCHEDULING COMPANY ACTIVITIES

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Abstract
This research aims to investigate the scheduling of company activities in the Banten area with a focus on optimizing efficiency and productivity. Through a descriptive-qualitative approach, local environmental factors, the role of technology, as well as interdepartmental collaboration and data analysis are explored to understand the challenges and opportunities in activity scheduling. Data was collected through interviews and observations of companies in Banten. Findings from the research indicate that local environmental factors, such as markets, infrastructure, and regulations, have a significant impact on the scheduling of company activities. Information technology and collaboration between departments have the potential to improve operational efficiency. Meanwhile, data analysis provides valuable information to improve the quality of decision making. These findings indicate the importance of an integrated approach in improving company activity scheduling in Banten.
Keywords: Activity Scheduling, Efficiency, Productivity, Information Technology

INTRODUCTION

Scheduling is the process of managing the allocation of available resources with the aim of ensuring smooth planning through optimal use of time and energy (Anggraini, 2023). Within the scope of the company, scheduling must be planned carefully and thoroughly to avoid disruption to previously prepared plans. In the process of preparing scheduling, companies must consider various factors, such as available resources, customer needs, and business goals.

Efficient scheduling contributes to increasing company effectiveness and productivity. By implementing appropriate algorithms, companies can manage resources more optimally, reduce expenses, and improve the quality of the products or services provided. Moreover, efficient scheduling can also support companies in dealing with changes that occur in the market, such as changes in customer demand or new technological developments. However, ineffective scheduling can cause a company to experience chaos, such as delays in product delivery, delays in project completion, or delays in product development. Therefore, companies must realize the significance of scheduling in efforts to increase efficiency and productivity.

In this research, we will discuss scheduling company activities around Banten with a focus on optimizing efficiency and productivity. We will use appropriate algorithms to optimize resource usage and reduce costs. We will also review the practical benefits of this research and how it can contribute to companies in increasing their efficiency and productivity.

In the context of this research, the following main questions will be investigated: 1) How do local environmental factors influence the scheduling of company activities in Banten? 2) Can technology improve the scheduling efficiency of companies in this region? 3) How effective is collaboration

between departments and data analysis in improving the scheduling of company activities around Banten?

LITERATURE REVIEW

Geographical and Infrastructure Study of the Banten Region

Banten, a province located in the west of Java Island, has extraordinary potential in developing regional infrastructure. With a strategic location on the shores of Banten Bay, this province has easy access to the sea and has an extensive river network, such as the Cibanten River, which can be a natural support for infrastructure development (Suci, 2023). Apart from that, Banten also has great potential in the tourism sector, with a target number of foreign tourist visits of around one million people each year, which has the potential to make a significant contribution to the country's foreign exchange earnings from the tourism sector (Banten, 2015). However, Banten also faces several challenges in developing regional infrastructure. One of the challenges faced is the low level of private investment in relatively underdeveloped areas, therefore, the importance of the government's role increases in allocating public investment to increase the attractiveness of the region through local infrastructure development. Apart from that, Banten also faces water security problems, with poor water security conditions, especially at certain times (Aditianata, 2019).

Market Analysis and Local Competition

Market analysis is the process of evaluating the market before launching a product or service. The following are the steps and benefits for the company (Manystighosa, 2024). Analyzing the market is a crucial initial stage before starting product production and marketing. The level of accuracy in analyzing the market will greatly influence the success of the product in the future. This process is a very detailed proactive stage because decisions about production quantities, market penetration, distribution locations must be carefully considered, and other factors depend on the results of the market analysis that has been carried out.

Competitive analysis is a step to identify your competitors, study their strategies, and identify the advantages and disadvantages of the strategies they implement (Priharto, 2024). In competitive analysis, it is important to understand your own company's strengths and weaknesses, as well as strategies for remaining a dominant competitor in your industry sector. Conducting a careful competitive analysis can help avoid wasting resources, stimulate the creation of new opportunities, and enable you to stay ahead of industry competition.

Application of Technology in Business in Banten

The use of AI technology in banking in Banten has increased efficiency and accuracy in credit applications, as well as helping to improve credit distribution services (Nurcahyani, 2023). By applying

information technology in organizing MICE in Banten, human resource performance has been improved and has had a large positive impact on organizing MICE (Gultom & Nurbaeti, 2023). In the upstream oil and gas industry, the application of carbon capture and utilization technology has become a very crucial strategy in increasing production output. and reducing CO_2 emissions (Perdana, 2023).

Inter-Departmental Collaboration and Supply Chain Management

The effect of cooperation in the supply chain on financial performance through logistics quality, operations and customer satisfaction has become a very significant strategy in increasing company efficiency and competitiveness (Suwanda & Surjasa, 2018). Collaboration in the supply chain can improve logistics, operational performance and customer satisfaction, thereby potentially improving the company's financial performance.

Trust, as a crucial element in the supply chain system, has become a very significant factor in improving supply chain performance. Trust can increase the commitment of cooperative relationships, thus, supply chain performance can be improved. Examination of cooperation between supply chain members, through case research of cooperation between Coca-Cola and Carrefour, has become a significant example in increasing company efficiency and competitiveness (Handayati & Simatupang, 2009).

METHOD

Types of research

This study used descriptive qualitative method. This involves a deep understanding of the business context in the Banten region, including factors such as geography, local markets, and infrastructure. Research focuses more on the description and interpretation of existing conditions, as well as the development of strategies to increase efficiency and productivity. Information was obtained through literature analysis, field studies, and interviews with local stakeholders. The resulting recommendations are more practical than testing a particular hypothesis or collecting quantitative statistical data. In this context, the research aims to provide in-depth insight into scheduling company activities in the Banten region and provide solutions that are relevant to local business needs.

Research Location and Time

This research was carried out in Banten. Banten was chosen as a research location because it is an important business and industrial center in the Banten region. During the research period, the research team conducted field visits, conducted interviews with business owners and employees in the area, and conducted in-depth analysis of secondary data related to markets, infrastructure and other environmental factors that influence the scheduling of company activities. Meanwhile, the research was conducted in January 2024.

Research Subjects and Objects

1. Research Subject

   Research subjects, especially in the context of this study, are individuals who participate in interviews, dialogue, or questions and answers with researchers (Tohardi, 2019). The subjects of this research include several small or medium companies in Banten, so the number of business owners involved may be around 5 and the number of employees involved in the research is up to 25 people.

2. Research Object

   Research object refers to the target or focus that must be investigated (Tohardi, 2019). The object carried out by researchers is the process of scheduling company activities in the Banten area, with a focus on companies operating in Banten.

Data source

   The data sources used in this research are:

1. Primary Data

   Primary data refers to information obtained directly from company owners and employees, which provides valuable insight into a company's operations and internal conditions. This source provides advantages in the accuracy and sustainability of information, because information obtained directly from these key stakeholders tends to be more complete and relevant.

2. Secondary data

   Secondary data includes information obtained from various company publication sources, including but not limited to company history, organizational structure, number of employees, and various other data that have been previously published. These sources may include annual reports, company profiles, company websites, news articles, and other publicly available publications. Even though it is not directly obtained from company owners or employees, secondary data still has significant value in analyzing and understanding the company context.

Data collection technique

   Within the research framework, data collection techniques are very important for the success of the research. It includes the data collection methods, sources, and tools used. The type of data source refers to the origin of the data, whether obtained directly from the source (primary data) or through indirect sources (secondary data).

1. Interview/Interview

   Interviews are a data collection method in which direct contact occurs between researchers and company owners or employees. This is a process in which researchers obtain information through questions and answers directly with the research subject.

2. Observation

Observation is a data collection method that involves structured observation and recording of phenomena observed in research subjects in the early stages of research. In this context, researchers make direct observations of activities in the company.

Sampling technique

The sampling technique used was purposive sampling. Researchers chose companies that were considered representative of various industrial sectors in Banten. This selection was based on the researcher's knowledge and experience of local businesses, as well as certain criteria such as company size and industry type.

Data analysis technique

After the data is collected, the next step is to process and analyze the data. This research uses a data analysis technique known as an interactive model, which consists of three parts:

1. Data Reduction

Data reduction is a step in which data is selected, emphasized on simplification, and abstracted from extensive information that emerges from written notes obtained in the field (Saebani, Ahmad, & Nurjaman, 2013). Data reduction involves three steps. The first step includes editing, grouping, and summarizing the data. The second step involves taking notes or memos relevant to the research process to help the researcher recognize themes, clusters, and patterns in the data. The third step involves developing concepts and explanations related to themes, patterns, or groups of data that can enhance conceptual understanding.

2. Data Data Display

Data presentation involves the process of organizing data by connecting one group of data to another so that all the data being analyzed becomes part of one unified whole.

3. Drawing and Verifying Conclusion

Researchers apply an inductive approach by paying attention to patterns that emerge from the data or trends that are visible from the presentation of the data that has been compiled. This allows researchers to present conclusions from their own perspective, to strengthen the research paper.

DISCUSSION OF RESEARCH RESULTS

Local Environmental Factors and Company Activity Scheduling in Banten

In the research results, it was found that the local environment has a significant impact on the process of scheduling company activities in this region. Local market analysis shows that seasonal variations and changing consumer trends influence customer demand and product or service needs,

which in turn influences the determination of production and distribution schedules. Transportation-related infrastructure, such as traffic congestion and the availability of public transportation, is also a key factor in determining the delivery time of goods and services to customers. In addition, government regulations and regulations related to business permits, operating hours, and environmental regulations also affect the flexibility of scheduling company activities. The influence of local social and cultural factors cannot be ignored either, with local work practices, traditional holidays, and consumer preferences unique to the area being important considerations in determining a company's operational schedule. With a deep understanding of these local environmental factors, companies in Banten can develop scheduling strategies that are more adaptive and responsive to the dynamics of the surrounding environment, thereby increasing their overall operational efficiency and productivity.

The Role of Technology in Improving Scheduling Efficiency

In the research results, it was found that the application of information technology could be the key to increasing the efficiency of scheduling company activities in the region. Analysis shows that integrated information systems, such as enterprise resource management (ERP) software, can simplify scheduling processes, facilitate communication between departments, and increase visibility over the entire supply chain. In addition, online collaboration platforms have also proven effective in facilitating coordination between teams and stakeholders involved in scheduling company activities. The use of analytical technology, such as big data and predictive analysis, also provides opportunities to forecast market needs, identify resource usage patterns, and optimize scheduling based on accurate and real-time information. With the adoption of the right technology, companies in Banten can overcome challenges in scheduling their activities, increasing flexibility, timeliness and overall operational efficiency.

Interdepartmental Collaboration and Data Analysis to Improve Scheduling

In the research results, it was found that effective collaboration between departments and the application of data analysis can make a major contribution to increasing the efficiency of scheduling company activities in the region. The analysis shows that good coordination between production, marketing and logistics departments can enable a smoother exchange of information and a better understanding of market needs. This allows companies to better align their activity scheduling, avoid overlaps, and minimize lead times in the supply chain. Additionally, the application of data analytics allows companies to identify patterns in customer demand, optimize resource use, and forecast future needs more accurately.

Through synergistic collaboration between departments, companies in Banten can create an environment where information and resources can be disseminated and utilized effectively. In this context, careful analysis of data usage is key to optimizing activity scheduling. By analyzing primary data obtained directly from company owners and employees, as well as secondary data from company

publications, companies can gain a deeper understanding of their operational needs and dynamics. Thus, they can design activity schedules that are more efficient, responsive and adaptive. For example, by leveraging data on customer demand trends, companies can adjust their production or service schedules more accurately, avoid overstock or understock, and ensure optimal use of resources. Additionally, collaboration between departments allows for rapid exchange and efficient coordination across time, which in turn increases the company's continuity in responding to changing market information demands or changing operational conditions. Thus, through collaborative synergy and careful data analysis, companies in Banten can improve their overall operational performance, achieve higher efficiency, and remain adaptive in facing diverse business challenges.

CONCLUSION

Based on the results of the discussion on local environmental factors, the role of technology, as well as collaboration between departments and data analysis in scheduling company activities in Banten, it can be concluded that increasing efficiency and productivity can be achieved through an integrated and holistic approach. Local environmental factors such as markets, infrastructure, and regulations have a significant impact on determining a company's operational schedule, requiring adaptive and responsive scheduling strategies. Meanwhile, information technology, collaboration between departments, and data analysis can be very effective tools in overcoming these challenges. The application of technologies such as integrated information systems and online collaboration platforms facilitates better coordination between teams and departments, while data analysis provides valuable information for predicting market demand and increasing the efficiency of resource use. By combining these approaches, companies in Banten can achieve more efficient, adaptive and future-oriented activity scheduling, which will ultimately improve their overall operational performance and provide a competitive advantage in a competitive market.

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