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Analysis of Determining Factory Location of Consumer Good Company

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Abstract

The location of a business becomes very important because it concerns the efficiency and effectiveness of a business. Manufacturing companies are in dire need of raw materials, labor, and various other input factors, which are easy, fast and precise. The business location must be easily accessible to consumers, known to consumers and make it easier for factory managers to reach the goods to be sold to increase effectiveness, determining the location of the business is not easy, there are many factors that influence the decision in determining the location, because it concerns the company's operational costs. This study aims to determine the factors that are the consideration of a consumer good company in choosing the current factory location. The study was conducted using primary data and secondary data. The data analysis was carried out using the rating factor method by determining the determinants of location feasibility and the center of gravity method as well as the forecasting method. factors that are taken into consideration in choosing the business location of a consumer good company are availability of labor, availability of electric power, transportation facilities, health, security, and fire prevention services, community attitudes, land and building costs, and possibility of expansion. Factors that are not paid much attention to in determining the business location for the company are: the location of the market, the location of raw materials, residential, educational, shopping, and telecommunication facilities, the area of the parking lot, the sewer, and the width of the road.

Keywords: location; efficiency; effectiveness; business

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Abstrak

Lokasi suatu usaha menjadi sangat penting karena menyangkut efisiensi dan efektifitas suatu usaha. Perusahaan manufaktur sangat membutuhkan bahan baku, tenaga kerja, dan berbagai faktor input lainnya yang mudah, cepat dan tepat. Lokasi usaha harus mudah dijangkau oleh konsumen, dikenal oleh konsumen dan memudahkan pengelola pabrik untuk menjangkau barang yang akan dijual untuk meningkatkan efektifitas, penentuan lokasi usaha tidaklah mudah, banyak faktor yang mempengaruhi keputusan dalam pengambilan keputusan, penentuan lokasi, karena menyangkut biaya operasional perusahaan. Penelitian ini bertujuan untuk mengetahui faktor-faktor yang menjadi pertimbangan perusahaan consumer good dalam memilih lokasi pabrik saat ini. Penelitian dilakukan dengan menggunakan data primer dan data sekunder. Analisis data dilakukan dengan menggunakan metode rating factor dengan menentukan faktor penentu kelayakan lokasi dan metode titik berat serta metode peramalan. faktor-faktor yang menjadi pertimbangan dalam pemilihan lokasi usaha perusahaan barang konsumsi adalah ketersediaan tenaga kerja, ketersediaan tenaga listrik, sarana transportasi, 4) pelayanan kesehatan, keamanan, dan pencegahan kebakaran, 5) sikap masyarakat, 6) tanah dan bangunan biaya, dan kemungkinan perluasan. Faktorfaktor yang kurang diperhatikan dalam penentuan lokasi usaha PT Wings Surya adalah lokasi pasar, lokasi bahan baku, pemukiman, sarana pendidikan, perbelanjaan, dan telekomunikasi, luas areal parkir, saluran pembuangan, dan lebar jalan.

Kata kunci: lokasi; efisiensi; efektivitas; bisnis

INTRODUCTION

Almost all opinion that the location of the business is very important because it concerns business efficiency and effectiveness. Determining the location of the business will also be very influential depending on the type of business to be built or the type of business to be developed. factor factor which is very influential on the location of the business that will be thought of by the perpetrator's effort. The right business location can reduce business costs, fixed costs and variable costs.

The choice of business location allows the company to compete with other companies for operating efficiently and effectively. What companies should also think about what the prospects for the location in the future are, not for the short term but for the long term long. Because the selection of this location is not easy, the implementation is also different effort with one another. Factors that influence the selection of factory locations such as

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market locations, sources of raw materials, water electricity, transportation access.

Bangkalan city is a city located at the end of Suramadu, East Java province and is directly adjacent to Surabaya, as well as the gateway for the cross-island route of Madura. Of course, there are reasons why the company's management chose this city as a location strategic establishment of a branch company PT Wings Surya. Based on the background above, the authors conducted research on factors which affect the determination of the location of a business with the title "Determination AnalysisFactory Location PT. Wings Surva Bangkalan Branch.". There are several previous studies discussing the factors that influence determining business location (Aversea et al., 2020; Dunning, 2014; Georgiev et al., 2014; Ghita, 2014; Lado-Sestayo et al., 2016; Lumbwe, 2020) . Several studies also focus on examining the factors that influence location determination in manufacturing companies (Ellram et al., 2013; Huang et al., 2020 and Kimmelberg & Nicoll, 2012), which aim to succeed in market expansion and increase profitability. Several factors determine a business location, namely proximity to manufacturing raw materials, cheap labor costs, availability of road infrastructure, electricity, and ease of obtaining factory permits. Hence, this study aims to explore previous research topics with case studies in Indonesia, especially the city of Bangkalan.

Operation management

Management Is a tool to achieve organizational goals, both profitoriented and non-profit organizations. However, in a production company, what must be considered is the operational activity because it costs a lot and must keep rotating.

Daft (2006:216) "operations management is a field of management that specializes in the production of goods and uses tools and special techniques to solve production problems". In addition, according to Herjanto (2007:2) "operational management is an activity related to the manufacture of goods, services and its combination, through the process of transformation of production resources into the desired output". according to consumer demand, covering a wide range of activities involving a variety of decisions, both short-term and long-term decisions.

Business Location

Business activities cannot be separated from purchasing and procuring labor, for production companies the focus of purchasing materials

is raw materials and other supporting materials. To purchase it will require a fee to get it. Tjiptono (2002: 92) argues that: "business location is where the company operates or where the company carries out activities to produce goods and services that concerned with the economy." Location selection is an important factor that influences the success of a business. As stated by Alma (2003:105) "Choosing the right business location will determine the success and failure of the business in the future." Usually, management will look for locations with lower operational costs low and easy access to resources in determining the location of the company. Choosing the wrong location will result in high operational costs for the company. Besides that, the company will not be able to compete, and will cause losses, instead of opening branches for expansion, but instead branches that burden operational costs

Site Assessment Method

According to Herjanto (2007:130) There are several methods often used to choose a location company, namely:

- a. Factor ranking
- b. Ideal value analysis
- c. Economic analysis
- d. Volume cost analysis
- e. Gravity center approach
- f. transportation method

METHODS

Research Sites

The determination of the research location was carried out deliberately, namely PT Wings Surya Bangkalan Branch on Jl. Halim Perdana Kusuma, Perum Pd. Halim I, Kemayoran, Kec. Bangkalan, Bangkalan Regency, East Java 69116.

Research Object and Scope

The object of this research is the company PT Wings Surya Bangkalan Branch. The scope of this research is to analyze the feasibility of PT Wings Surya opening a branch in Bangkalan.

Method of collecting data

In this case, the researcher uses two types of data according to the classification based on the type and source of data, namely primary data and secondary data. Primary data is taken from the first source in the field obtained by direct observation at the research location and the results of

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on-site interviews with the parties at the location. Secondary data obtained from documents, archives, and information other matters relating to site selection. In this case, written reports (document summaries), collections of literature, papers, and guidelines.

Analysis Method

Qualitative research methods According to Sugiyono (2005:1), qualitative research methods are research methods used for research on the natural state of objects. Study Qualitative descriptive attempts to investigate information that is in accordance with the description of conditions, objects or social phenomena when conducting research. This research uses an approach qualitative analysis with descriptive analysis method, this method is considered relevant and in accordance with the research to be conducted, namely to gain a correct understanding of the factors that influence the choice of PT. Wings Surya Bangkalan City Branch, this method can comprehensively reveal how the process of selecting a business location is, so researchers believe that qualitative research methods are considered relevant. The method used in this research is the factor rating method.

Hypothesis

Based on the formulation of the problem above, it can be concluded that the temporary hypothesis it is suspected that the selection of the development of the business branch of PT Wings Surya Bangkalan Branch already worth it.

RESULT AND DISCUSSION

Factor Rating Method

The factor rating method is a location determination method that emphasizes objectivity in the process of identifying costs that are difficult to evaluate. Determining a location is very important in setting up an industry because if the industrial owner does not choose a good location then the business cannot run well. PT Wings Surya Bangkalan branch is only used as a storage warehouse for finished products, such as packaging and distribution. location on Jl. Halim Perdana Kusuma is very wide and not many motorists cross the road. so that distributional mobility can be done with Effective. The company's management chose the business location in that place, because many areas of Madura buy household products and personal medical devices that are so cheap and affordable. With a business

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location in Bangkalan, buyers don't need to go to Surabaya or other places. more urgent matters, PT Wings Surya Bangkalan Branch is an inventory of companies in Surabaya. So the company can produce more products.

RELATED FACTORS

According to Herjanto (2007: 127) in getting the right location for a company/factory, it is necessary to pay attention to factors related to the company's business activities. These factors include the following:

Market Location

Proximity to markets allows an organization to provide good service to customers and often save on shipping costs. The higher the supplier distancethe higher the cost of transportation and distribution of goods. The market share of PT Wings Surya is sales of household products. So with a company close to town and broad roads will affect the comfort of the buyer. And it benefits again that PT Wings Surya, with its affordable products, will also become a coveted supplier Public.

Location of Sources of Raw Materials

The availability of raw materials close to the factory location will be very profitable for the company. The main raw material for PT Wings Surya Bangkalan Branch comes from the parent company in Surabaya. The location of the main company and branches can only be reached in approximately one hour. Because the distance between Surabaya and Bangkalan City is also counted close. So the location of the source of raw materials is also a major concern factor. Moreover, shipments are carried out at night and there is no heavy traffic, and the size of the warehouse can also store a lot of products.

Labor Availability

Availability of manpower, both educated and trained manpower, is the most important factor. the magnitude of the demand for manpower, both skilled, trained and unskilled workers. To meet the needs of the company it must considering the availability of these resources. Previously, the Bangkalan Regency Government Manpower Office released that the unemployment rate in Bangkalan has recently tended to increase from 4.8 percent in 2020 to 5.4 percent in 2021, out of a total of 717,771 people of working age.

Availability of Electric Power

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For companies, the availability of electricity at prospective business locations is an absolute must, sometimes there are some areas that are still not reached by PLN. This electricity need can be met by the Bangkalan PLN, and the location is also very close to the Bangkalan City PLN, electricity is available in almost all areas, especially areas that are on transportation/road routes with qualified power.

Transportation Facilities

facilities that will be used or passed by said transportation in carrying out its function to transport goods or passengers from one place to another that has been determined for land transportation such as; roads, bridges and others, must be provided properly, in order to smooth transportation including also for the purposes of loading and unloading goods or unloading and raising goods. Transportation facilities in Bangkalan City are very supportive for business establishments, Bangkalan City is a transit and connecting route. PT Wings Surya is no exception which require transportation facilities in their operations, both transportation of raw materials and transportation of labor.

Health, Security and Fire Prevention Services

health services are also something that should be considered in choosing a location, PT Wings Surya is 1-2 KM away from SYAMRABU Hospital, security services must also be considered, considering that the company's assets are also not small. And the business location is also close to the local police and there is also a warehouse guard on standby 24 hours at this business location. The risk of factory fires also cannot be eliminated, but this can be minimized, because with the existence of fire extinguishers provided by the government and the existence of company procedures to overcome this situation. There is also a fire engine in the city of Bangkalan. With the existence of fire services in the area of the business location, it is a factor that needs attention.

Land and Building Costs

The price of land in Bangkalan is not as expensive as Surabaya, Bangkalan is a small town. While the location of this business is also a suburban area, although it is also a city, because Bangkalan is not a very large city, land prices vary. Range of 1-10 million per meter. And the location for the establishment of this business is located on Jl. Halim Perdana Kusuma.

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Perum Pd. Halim I, Kemayoran, Bangkalan District, Bangkalan Regency, East Java 69116.

Possibility of Expansion

Most investors in choosing a business location in an area will look at the possibility of whether the location allows for expansion or not. If around the business location is full, while the company needs a factory expansion, the alternative that can be taken is to build a multi-storey building. Of course it will complicating the production process. PT Wings Surya Bangkalan City Branch chose a location on Jl. Halim Perdana Kusuma is right, considering that the location still has vacant land, both on each side and behind it, and also in front of it. so that if you are going to expand your business location it is very flexible.

Housing, Education, Shopping and Telecommunication Facilities

Housing, education and shopping facilities are not given too much attention in choosing the location of this business, considering that the type of business does not require these factors, however the telecommunication factor is taken into consideration in determining the location of a business, because current conditions demand the speed of information flow supported by communication technology. Bangkalan City is an area that has been covered by telecommunications networks either through 3G, 4G technology, or through fiber optic (FO) networks.

Parking Space Area

A parking lot with an adequate area is a consideration in the location of the business, but the size of the parking lot is determined based on the type of business activity, the size of the parking lot depends on how many employees are needed, and the parking lot is also built when starting a business, so it is not too much of a factor determinant in choosing a business location.

Sewer

The waste generated is a household product and can be distinguished from solid waste and liquid waste. Because the use of this location is only as a warehouse and packaging and distribution, this sewer is also not a determining factor in the location of the business. This business location is also close to the river. Liquid waste that flows into the river can certainly be handled and solid waste is easy to handle. Because Bangkalan also has its own procedure for dealing with waste.

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The Width of the Road

Road width has become a determining factor for production companies that require the mobility of business actors and transportation for the distribution of sales and raw materials. And in this company the roads are wide and there is rarely heavy traffic, especially if the delivery is made early in the morning or at night. Of the several factors in determining the business location described above, not all factors are taken into consideration for the Bangkalan branch of PT Wings Surya. Several factors are taken into consideration in determining the location of their business, including;

- 1. Availability of labor
- 2) availability of electricity
- 3) transportation facilities
- 4) health, safety and fire prevention services
- 5) land and building costs
- 6) Possibility of expansion
- 7) road width
- 8)Sewer

While the factors that are not really taken into consideration include;

- 1) market location,
- 2) the location of raw materials
- 3) housing, education, shopping and telecommunication facilities,
- 4) Spacious parking area.

Based on the description above, it is understood that there are not all reasons for determining the location The effort is used, it is considering that every business activity is different, there is also a need for a location close to raw materials, there is something to look for locations with low wages, locations that are close to market. This study supports previous research (Aversea et al., 2020; Dunning, 2014; Georgiev et al., 2014; Ghita, 2014; Lado-Sestayo et al., 2016; Lumbwe, 2020; Ellram et al., 2013; Huang et al., 2020 and Kimmelberg & Nicoll, 2012) which states that the proximity factor to manufacturing raw materials, low labor wages, availability of road infrastructure, electricity, and ease of permitting factory establishment.

CONCLUSION

Based on the results of consideration in all aspects of the location of PT Wings Surya Bangkalan Branch it was declared feasible. This research tries to find out and analyze factors why PT Wings Surya opened a branch of business location in Bangkalan. This research is also to find out and

analyze the factors regarding the location of the business. The results of this study it can be concluded as follows.

The factors taken into consideration by PT Wings Surya in determining the business location are 1) availability of manpower, 2) availability of electricity, 3) transportation facilities, 4) health, safety and fire prevention services, 5) land and building costs, 6) Possibility of expansion, 7) road width, 8) Sewerage.

Factors that are not given much attention in determining the business location for PT Wings Surya, namely, 1) market location, 2) location of raw materials, 3) housing, education, shopping facilities, and telecommunication, 4) wide parking area.

REFERENCES

- Aversa, J., Hernandez, T., & Doherty, S. (2020). Spatial Big Data and Business Location Decision-Making: Opportunities and Challenges. *Regional Intelligence*, 205-224.
- Daft, Richard. 2006. *Manajemen Edisi Keenam*. Jakarta: Salemba Empat.
- Dunning, J. H. (2014). Location and the multinational enterprise: a neglected factor?. In *Location of international business activities* (pp. 35-62). Palgrave Macmillan, London.
- Ellram, L. M., Tate, W. L., & Petersen, K. J. (2013). Offshoring and reshoring: an update on the manufacturing location decision. *Journal of Supply Chain Management*, 49(2), 14-22.
- Georgiev, P. I., Noulas, A., & Mascolo, C. (2014, May). Where businesses thrive: Predicting the impact of the olympic games on local retailers through location-based services data. In *Eighth International AAAI Conference on Weblogs and Social Media*.
- Fernhaber, S. A., Gilbert, B. A., & McDougall, P. P. (2014). International entrepreneurship and geographic location: an empirical examination of new venture internationalization. In *Location of international business activities* (pp. 94-136). Palgrave Macmillan, London.
- Ghiţă, C. (2014). A Decision Support System for Business Location Based on Open GIS Technology and Data. *Managing Global Transitions*, *12*(2), 101-120.
- Herjanto, Eddy. 2007. Manajemen Operasi Edisi Ketiga. Jakarta: Grasindo.
- Huang, S. W., Liou, J. J., Tang, W., & Tzeng, G. H. (2020). Location selection of a manufacturing facility from the perspective of supply chain sustainability. *Symmetry*, *12*(9), 1418.
- Kang, Y., & Jiang, F. (2012). FDI location choice of Chinese multinationals in East and Southeast Asia: Traditional economic factors and institutional perspective. *Journal of world business*, *47*(1), 45-53.

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E-ISSN: **2962-3898** Page 168-176

- Kimelberg, S. M., & Nicoll, L. A. (2012). Business location decisions in the medical device industry: evidence from Massachusetts. *Economic Development Quarterly*, *26*(1), 34-49.
- Lado-Sestayo, R., Otero-Gonzalez, L., Vivel-Búa, M., & Martorell-Cunill, O. (2016). Impact of location on profitability in the Spanish hotel sector. *Tourism Management*, *52*, 405-415.
- Li, C. S. J., Lee, P. Y., & Liou, J. J. (2018). Exploring the staff localization of Taiwanese MNC subsidiaries in China: Effects of size, operation time, location, and local-market focus. *Journal of Business Research*, 88, 20-27.
- Lu, J., Liu, X., Wright, M., & Filatotchev, I. (2014). International experience and FDI location choices of Chinese firms: The moderating effects of home country government support and host country institutions. *Journal of International Business Studies*, *45*(4), 428-449.
- Lumbwe, A. K. (2020). Assessment of the relationship between location decision factors and performance of SMMEs in Johannesburg. University of Johannesburg (South Africa).
- Nielsen, B. B., Asmussen, C. G., & Weatherall, C. D. (2017). The location choice of foreign direct investments: Empirical evidence and methodological challenges. *Journal of World Business*, *52*(1), 62-82.
- Priya, P., & Venkatesh, A. (2012). Integration of analytic hierarchy process with regression analysis to identify attractive locations for market expansion. *Journal of Multi-Criteria Decision Analysis*, 19(3-4), 143-153.
- Purnama, N. I., & Arta, R. T. P. (2018). The Influence Of Price And Location Against The Decision Of Buying A Home In Pt Wiratama Group Unit Grand Mansion Johor Medan.
- Sugiyono. 2005. Metode Penelitian Administrasi. Bandung: Alfabeta.
- Tjiptono, Fandy. 2002. Strategi Pemasaran. Yogyakarta: Andi.
- Tate, W. L., Ellram, L. M., Schoenherr, T., & Petersen, K. J. (2014). Global competitive conditions driving the manufacturing location decision. *Business Horizons*, *57*(3), 381-390.
- Yuan, F., Gao, J., Wang, L., & Cai, Y. (2017). Co-location of manufacturing and producer services in Nanjing, China. *Cities*, *63*, 81-91.