

Measuring the Progress on Palm Oil Industrial Estate, Sumatera Corridor (MP3EI)

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Abstract

The purpose of this study is to measure the progress of developing the Palm Oil Industrial Estate, Sumatera Corridor (MP3EI). This study conducted because Industrial Park has been developed almost 10 years already but the progress is still slow. This study analyzed the characteristics of each variables of its resources on an Industrial Park. Dumai Industrial Park is chosen as a sample. Resources Based view theory is applied to searching the weakness and strength of the variables. There are 7 (seven) resources based : Human resources, financial resources, physical and location resources, natural resources, technology resources, organisation resources, and innovation resources. Each variables is divided into indicators. Then, every indicators is formulated to get the index number. Having index numbers, the web approach is using to analyze the result. The findings are: 1. Eventhought the raw material resources is very attractive variable in this industrial park,, but the organization resources has the lower index (0) .2. it means that the local government has reluctance to develop the Tenayan Industrial Resources. Although the other resources have good index, but they are meaningless for Tenayan Industrial development. 3. it shows that Industrial Park at Kawasan Industri Dumai has a weakness to attract the tenant in to its location..

Keywords: Measure, Industrial estate, Resources Based View, Web Analyzes, Development

Introduction

There are at least two objectives of industrial sector development in Indonesia: 1) to stimulate a conducive environment of industrial sector; and 2) as a facility to control area use in order to avoid social and environment problems (PP. No 24/2009). Therefore, industrial sector is necessary in various districts/cities in development process. Industrial sector is able to give economic, social, security advantages, etc.

Based on data, industry number and industrial sector width at all over Indonesia (Deperindag RI, 2001) shows spectacular progress. In Riau and Riau Kepulauan the demand of industrial sector has magnificent extent, in the amount 14.517 Ha. Evidently, it is only filled up by 19 companies with 1.236,5 Ha used land area. It means that, the demand surely low, below than 10%. It is also at the national level according to data, it is below than 30% that have been used

of the total. Dirdjojuwono revealed that in the era of region autonomy has no big different. According to Industrial Sector Community (*Himpunan Kawasan Industri*; HKI) (beritasatu.com/ekonomi, February, 7 2014) throughout Indonesia nowadays, occurs 232 Industrial Sector with total width in the amount of about 78.976 Ha. Until June 2012, HKI noted there are 27.000 Ha of area that have been used as Industrial Sector in Indonesia, but it is not developed well yet. From that number, the widest area occurs in *west Java* that reached 13.030 Hectars which is build only 5.582 Ha industrial buildings. From the 81 Industrial Sector's HKI members, the width of the areas that developed are up to 23,3 thousands Hectares which largely are located in *java island*.

Then Sutanta's studies (2010) shows there is Industrial Sector failure in Indonesia. Why? There are various answers. Sutanta explained

The obstacle problem on Industrial Sector development in Riau has not much different with in National level. Riau industrial sector has been started since about 10 years ago, but still doesn't show significant progress. Dumai industrial sector has been built in Dumai City which is located with 1.500 Ha width (started from 1000 Ha then 500 Ha additional). The development of this industrial sector was designed to become a city economic cantilever, outright, to control industry to operate efficiently and has good clean environment control. After 10 years, this sector only has 20% used area. Therefore, this research is carried out to know more about obstacles and problems that have been faced in order to advance this industrial sector.

The purpose of this research: to analyze area development and to formulate the obstacles and excellences of "tenayan" industrial sector. The research is located in Dumai industrial sector. The research execution process was carried out at Industry Economy Laboratory, Faculty of Economy, Universitas Riau.

Methodology

Object and Secondary Data Collection

The research object is Kawasan Industri Dumai (KID), Dumai. After the variable has been chosen, the research then analyzes government official documents as secondary data. To complete the materials that is needed for secondary formal data collection, the research also uses statistics data from *Body of Statistics Center "BadanPusatStatistik"* and some related agencies.

Variabel Operational Formulation

Variable that is measured on this research is: 1) Human Resources, 2) Financial Resources, 3) Infrastructure Physics Resources, 4) Organizational Resources, 5) Technological Resources, and Innovation Resources.

Primary Data Collection

The primary data arrangement is carried out by inventorying indicators. After the

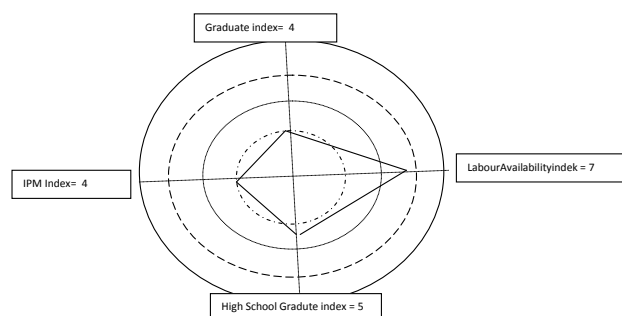
variable indicator has been outlined, the indicators then are matched to secondary data availability into the indicators. Data which are not available to meet the charging indicator will be used as primary data. Primary data is collected that requires data from the field. Then, data is encapsulated into research question that is used as questionnaire. Questionnaire instruments were prepared by referral patterns good preparation with a test before get into the field. After that, the research tested the validity and reliability of the instrument with a pre-trial survey. The data which has been collected from the questionnaires then was tabulated in order to be analyzed.

Analysis: analysis approach that is used is by description of the tables and cobwebs analysis. The description of the table is used to explain the characteristic features of the area. Cobweb is the analysis of the changes phenomena into number of index, then formulated into the form of a spider web. The index numbers are split from 10 to 1. 10 shows the condition is very good or superior, while the number 1 indicates a very bad condition.

Discussion

The discussion part of the research is delivered by analyze all variables which have been translated into cobweb model:

Human Resources in Cobweb



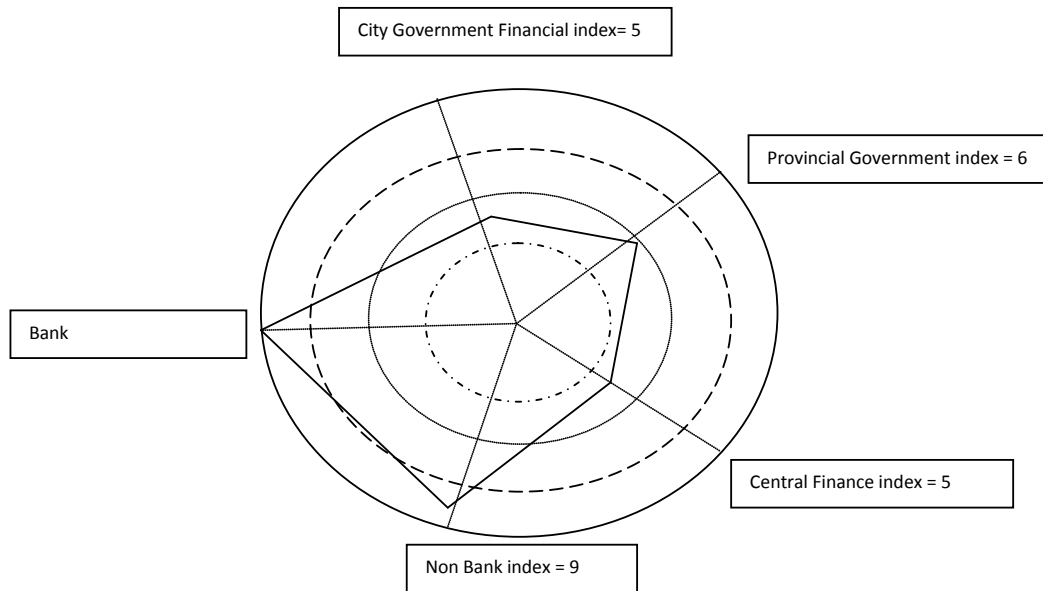
Then the variables are summed: $4+4+7+5=20$. Further, variables are averaged into $20/4=5$. It means that, the average number of human resources is low. The IPM index is 4.

It shows that the human development index is in low level compared to the other regencies in Riau. 5 index means high school graduation in Dumai is not enough to fulfill some job positions in KID. 7 index means The labour supply is plenty available. The companies are not dif-

ficult to here, but higher education (4) is rare available.

Financial Resources in Cobweb

Regarding to ease the interpretation, then the index is translated into Cobweb



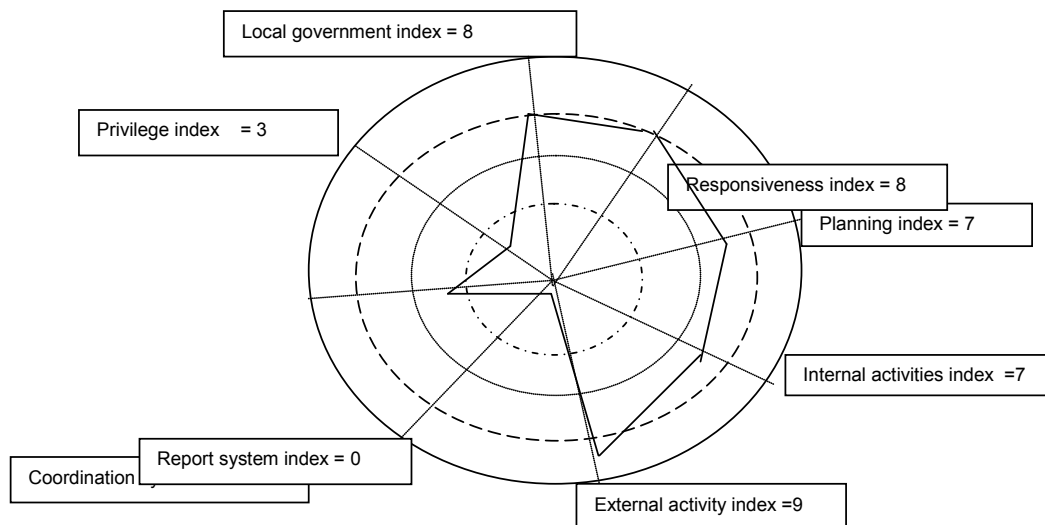
The total number is 10+9+6+5+ =35 and the average is 35/5= 7

The availability of private funds is very good in Dumai with an average index :10. There are many financial institutions, either

Bank or Non-Bank. But public investment funds which was disbursed by the government

is low, with an average index of 5. However, the overall financial resources are good.it means public financial support to develop KID is very good. Government attentions toward industrial development is high.

Organizational Resources in Cobweb

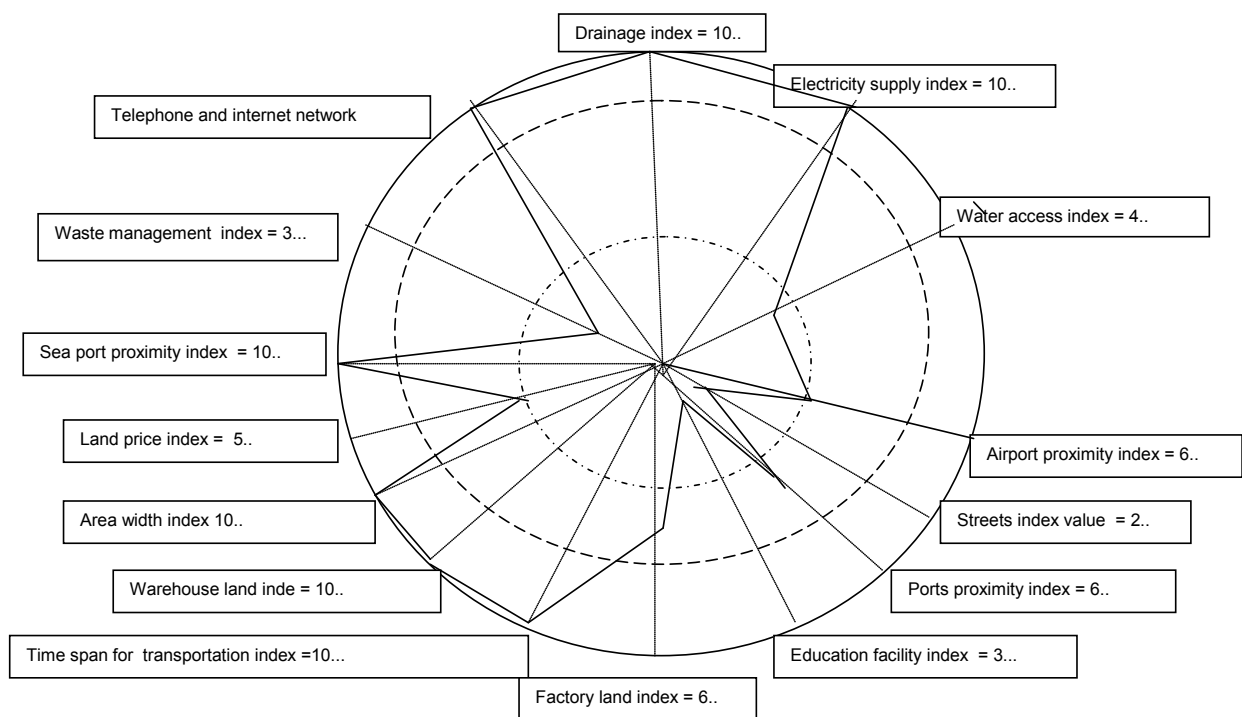


The total index is 47 (8+8+7+7+9+0+5+3) and the average of organizational resource is 5.5. It is still lacking. Organizational management is clear but has limited authority. The efforts of regional organizations industrial managers in the care of the field of external (index=9) and internal (index=7) are pretty good once there. Local

government responsiveness(index=8) is very good for the progress of the industrial sector. Its planning of this organization (index=7) is very good, But rarely people know the progress on development of the industrial sector in Dumai (report system index=0), eventhough the coordination system (index=5) is enough to foster the report system.

Physical Infrastructures in Cobweb

These are the following variables that is translated into cobweb

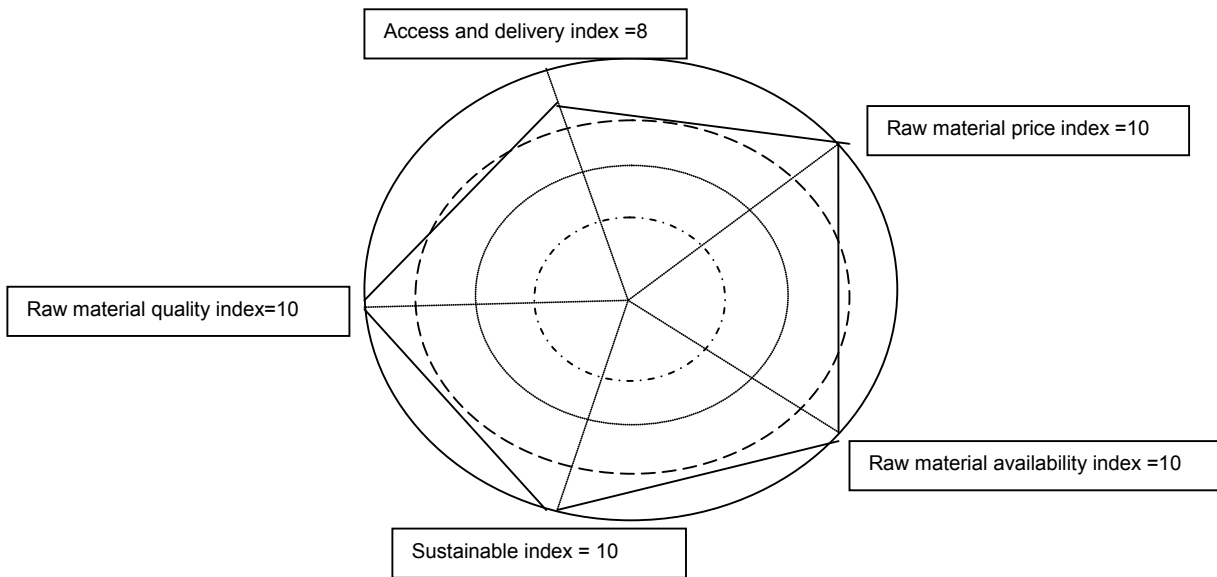


Since the value of the weight of each indicator are same then the mean is the sum value of index divided by the number of indicators, namely : $(6 + 10 + 10 + 10 + 5 + 10 + 3 + 8 + 10 + 10 + 4 + 6 + 2 + 6 + 3) / 15 = 6.8$

In general, appeal of physical resource infrastructure is good enough that is the average index is more than 6. As it is near the sea port, the

area of land sufficient is excellent for warehouse. The delivery time span is exact. Summed with the availability of electricity and good drainage, this condition can be an attraction of Dumai Industrial Sector. But some things have to be improved such as the availability of schools, waste, and water. It seems lacking.

Natural Resources in Cobweb

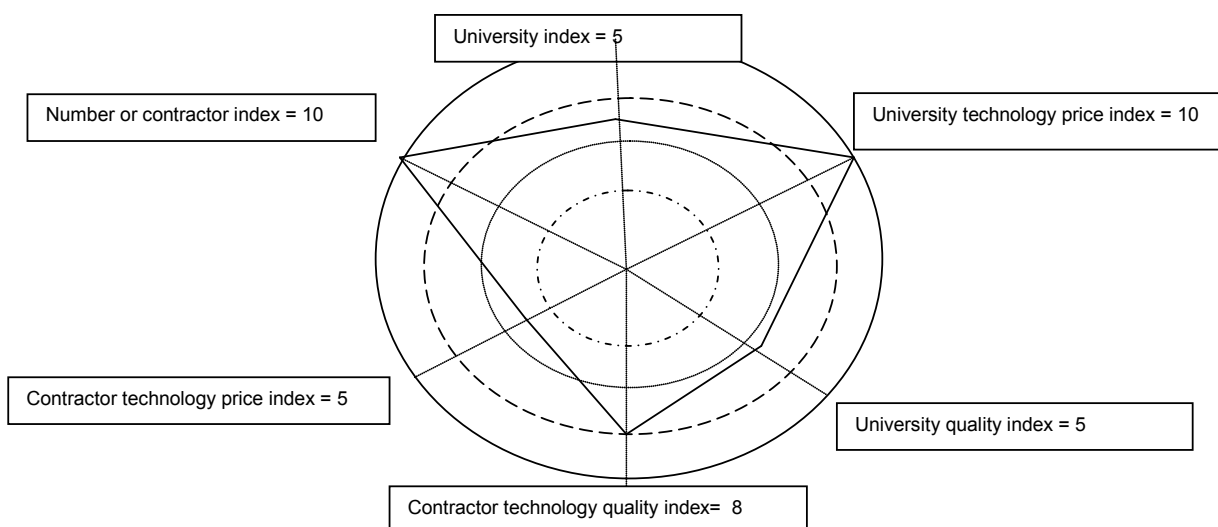


The natural resources variable indicates excellent value. The total value of those indicators is 48 (10 + 10 + 10 + 10 + 10 + 8), then the average value of the index is $48/5 = 9.6$. Riau is the largest palm oil area in Indonesia (more than 3 million hectares), and KID core business is in palm oil processing. Index value of 9.6 indicates that the industrial area has a very high, so-called super variable in this location. The raw material availability (index=10) means

Riau region is an area that has abundant palm oil field in Indonesia. And it is supported also with the raw material's quality is the best (quality index = 10) as Riau soils is suitable for palm oil tree. Therefore, its supply availability can be provided continuously (sustainable index=10). KID has important role in managing the palm oil companies belong to its group. So that KID's access and delivery (8) is very trusted.

Technological Resources in Cobweb

These are the following technological variables that is translated into cobweb



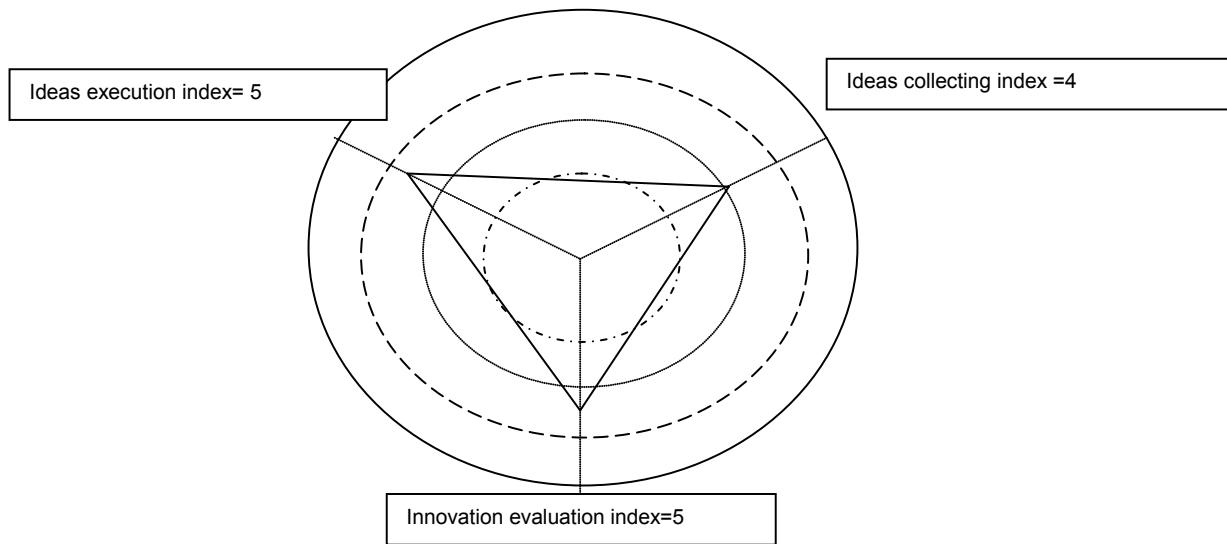
This technological resources variable means that the availability of technology providers in KID. The average value of the index is 7.17 (5 + 10 + 5 + 8 + 5 + 10 divided by 6). This index show the technological provider is very good in KID. The technological resources providers are companies and universities.

The number of contractors' technology providers is a lot in Dumai (index=10), means it is easy to find the companies for supplying

the technology needed by tenant (firms in KID) around this location. The price level of contractor technology (index =5) offered by contractors is some what expensive. And the quality of the technology (index =8) can be chosen for the good contractor. University technological price (sindex =10) is available with inexpensive cost However, the quality of research and testing (index=5) by the university is still lacking.

Innovation Resources in Cobweb

These are the following innovation resources variables that is translated into cobweb



The average value of the index is $5 + 5 + 4 = 14$, then divided by 3 is 4.67. The appeal of the innovation resources in KID is low at 4.67. It means that this industrial Park has low creativity. Innovation has suffered. The pattern of getting and applying innovations in the industrial area is less developed. Ideas collecting from internal or external side is weak (index=4). There is limited idea can be implemented for its progress. Application of the new idea is also slow (index=5) .and also evaluation of idea implementation is not so high.

Conclusions

The findings of this research are:

1. The availability of human resources to work

on Dumai Industrial Sector is less well with the average index 5. Dumai has not been able to provide resources to support the operation of Dumai Industrial Sector.

2. Financial resource is good enough. The availability of private finance is very good in Dumai with average index: 10. The number of financial institution, either bank or non-bank is a lot. But, public investment finance that is delivered by government is low with average index: 5. But, overall financial resources seems good.
3. Organizational resource has total number 4 with average 5, 5. Organizational resources are still lacking. Managerial organization is clear but has limited privilege. The mana-

gerial is good at external and enough at internal level. But, unfortunately only few people know the development of Dumai Industry Sector.

4. The availability of infrastructure resources is very good with index number 6, 8. It means that the existence of this resource is good enough. So it ease the investors to operate there.
5. The availability of natural resources is the highest index of Dumai Industrial Sector. 9, 6 of index value shows that the region has big number of natural resources (so called eminent). Riau is the region that has widest palm oil land in Indonesia (more than 3 million Ha).
6. The availability of technological on Dumai Industrial Sector is good enough with 7, 17 of index value. It means that, the technological resources in this region is good enough. the number of technology provider contractor is many. The price rates is competing. The technology quality could be chosen for the best. But, the research field and examination by university/college is are still lacking.

7. Innovation resources has 4, 67 of index value. This is very low number. The appeal of innovation resources in this region is low which means that the region has low level of creativity. Innovation is suffered to be developed. The pattern of “getting” and “applying” the innovation in this region is lack of development.

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