

THE DEVELOPMENT MODEL OF DEMAND-SUPPLY PRINT MEDIA IN TRAFFIC LIGHT BASED OF GEOGRAPHIC INFORMATION SYSTEM IN EAST-SURABAYA

by Marsudi Lestariningsih

Submission date: 10-Nov-2023 10:16AM (UTC+0800)

Submission ID: 2223437720

File name: 13_The_development.pdf (355.57K)

Word count: 2337

Character count: 11814

THE DEVELOPMENT MODEL OF DEMAND-SUPPLY PRINT MEDIA IN TRAFFIC LIGHT BASED OF GEOGRAPHIC INFORMATION SYSTEM IN EAST-SURABAYA

¹MARSUDI LESTARININGSIH, ²HENING WIDI OETOMO, ³SUSANTI

^{1,2,3} School of Economics (STESIA) Surabaya

E-mail: ¹tariningsih@yahoo.co.id, ²widi2010@yahoo.com, ³susantisafa@yahoo.co.id

Abstract- The purpose of this study was to determine the market potential of the print media in the traffic light at East Surabaya. Factors to be considered is the demand and supply in each traffic. Approach to requests made through existing activities in a radius of 500 meters. Activity demand is economic activity, trade, social and education. The approach made deals with the traffic infrastructure in the form of sidewalks and sales activities consist of the number of sellers of newspapers and newspaper daily turnover. The amount of traffic in East Surabaya studied as much as 30 traffic light. The research method using Model Index, in which each factor is weighted according to their intended, total weighted number is 1 (100%) and then multiplied by the real value of which has been standardized with a minimum value of 1 and a maximum of 5. The results are then summed multiplication. Model Index is the total of the multiplication by 5 possible score is a score of 1 means that the potential market is very low, a score of 2 means that the potential market is low, a score of 3 means that the potential market is, score 4 means a high market potential and a score of 5 means very high market potential.

Keywords- Demand, Supply, Market Potential, Index Model

I. INTRODUCTION

Today circulation newspaper in Indonesia is increasing. In 2001 alone, according to records sudahmencapai Kompas newspaper circulation of 15.8 million copies per day. It certainly will increasingly provide opportunities to distribute information to the public at large. Moreover, since the tap freedom of the press was opened bersamaan dengan reform era in 1998. Since then more banyak perusahaan new press in Indonesia.

The media is not just a disseminator of information. The media has a responsibility to participate actively involve themselves in social interaction and sometimes indicate the direction or lead, as well as participate in creating relationships and integration. In society, the media moves with marked by the spread of power, which is given to individuals, groups, and social classes unevenly. McQuail (1989),

mentions the media is often seen as an effective instrument of power because of its ability to perform one or more of several things such as: attract and direct attention, persuade opinion and presumption, affecting the choice of attitude, provide status and legitimacy, define and shape perception reality.

One medium that is often used in forming the perception of reality as mentioned above is a newspaper. In Surabaya, one interesting phenomenon is the sale of the newspaper carried on the traffic light, at which time the vehicle stops waiting for the red light used by newspaper sellers to conduct transactions. Therefore, this study aims to determine the potential market formed by the demand and supply at the traffic light at East Surabaya.

II. LITERATURE REVIEW

2.1. Print Media

In general, the type of print media in Indonesia is classified into eight sections. The classification is based on the time of issue of the media. This is consistent with what is issued by the Director General of the Press and Graphic, concerning the print media division and classification. Eighth print media types include the following:

1) Daily Newspapers

The print media type is published every day, except on certain days such as national holidays. The print media type is still divided into the National Daily Newspaper, Daily Newspapers of Regions, and Local Daily Newspaper. News delivered is the kind of news and the latest news or information delivered with the system straight news or what it is.

2) Weekly Newspaper

Newspapers this type more known as tabloid. News usually raised is entertainment or news in depth news or in-depth coverage. Posts in this medium more stylized feature or descriptive.

3) Weekly

This type of magazine published every other week. News is news raised in depth news with the type of news is news or news about an event.

4) Central Magazine Monthly

The magazine is published twice a month. News displayed more informative and usually contains about news life style or lifestyle.

5) Monthly Magazine

Monthly magazine published once a month. The type of news that was delivered normally include investigative or news obtained from the research.

6) Bimonthly magazine

The magazine is published once in two months. The information presented in this magazine is usually associated with a report of the results of activity of something. Eg company balance sheet or magazines also contain an income statement zakat institution.

2.2. Theory of Demand

Demand is a matter that arises from the desire. This shows a desire to request it are two different things with one another. Demand is not the desire, as desire bukanpermintaan. But it is undeniable that the two are closely related. However peemintaan have deeper understanding. An item has a price because it is useful and scarce goods, that is, the amount available is less than the required amount. If only one of these two conditions are met, the stuff that does not have a price. According to Richard G. Lipsey et al (1993: 61), there are three important things to consider in konsep request. First, the amount requested is desired quantities. It shows how much you want purchased by households, on the basis of the price of the commodity, the prices of the other, their income, their taste and so on. Second, what is desirable is not a false hope, but it is effective demand, meaning the amount that people are willing to buy it at the price they have to pay for the commodity. Thirdly, the quantity demanded is a continuous flow of purchase. Therefore, the quantity must be expressed in the amount per unit time.

2.3. Theory of Supply

The law of supply states that the higher prices of goods the greater number of the goods Supplied by the seller, on the contrary the lower the price of an item the less amount of goods on supply. A kesepakatan price may occur when demand and supply meet. There is possibility of simultaneous changes in demand and supply that may apply.

Changes may apply towards the same, they both increased tau equally decreased. But he may also apply towards the contrary, for example, demand fell, but Supplys increased, or demand increases but Supplys down. Each of these changes will lead to a different result to changes in price and quantity of goods sold. Supply is positively correlated to the price (P). This means that the higher the price of the product, increasingly provide incentives to producers to increase production and then Supply it to consumers in need. Conversely, the lower the price of a product, the less incentive for manufacturers to produce and Supply it. This is because the lower a price, the smaller an advantage or even incurred losses. As a rational economic agents, producers would decide its production. Thus it can be illustrated in a diagram in which the vertical axis is the price and the horizontal axis is the number of products Supplied to the public that the supply curve as a curve that rises to the right. The position of this curve can be moved or shifted depending on the factors that influence it.

III. RESEARCH LOCATION

The location of research is in East Surabaya study as shown in Figure 1.

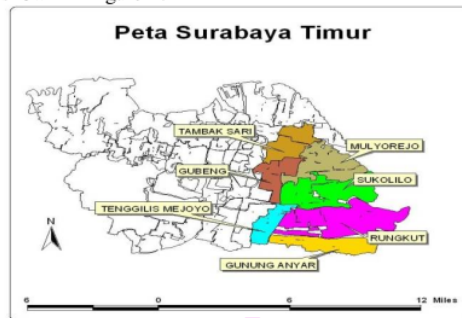


Figure 1: Location of Research in East Surabaya East Surabaya consists of seven sub-district as shown in Table I.

Table 1: List of District and area districts in East Surabaya

No	District	Area
1	Rungkut	21,08 km2
2	Mulyorejo	14,21 km2
3	Tambaksari	8,99 km2
4	Sukolilo	23,68 km2
5	Gunung Anyar	9,71 km2
6	Gubeng	7,99 km2
7	Tenggilis Mejoyo	5,52 km2
	Total	91,18 km2

IV. RESEARCH METHODOLOGY

The number of samples taken in each district varies between 1-5 traffict light, so a total of 30 pieces traffict light. Next is a GIS data collection which consists of 6 layers of the map are:

- Map of gas stations
- Map of Trade Center
- Map of Financial Center
- Map of Education Center
- Map of Worship Center
- Map of Health Center

Data collection is done with gas stations, Trade Finance Center, Education Center, Center for Worship and Health Centers in a radius of 500 meters from traffict light and record the coordinates of its location on the map traffict transformed into light at each location. Once the data is tabulated in a database that is calculated as the level of demand and supply level by using the Model Index.

4.1. Model Index

The model is a simple representation of a phenomenon or system. Model Index will calculate an index value of each unit area that involves a lot of criteria and weighting (Kang Tsu Chang, 2008). The

formula for calculating the Index value is as follows:

$$I_i = \sum_{i=1}^n W_i X_i$$

Explanation :

- I_i : Index Value
- n : Criteria
- W : Weight
- X : Standard Value

In general there are three steps in calculating the Index value as follows: 6

Step 1: Evaluate the relative importance of each criterion to the other criteria or weighting.

Step 2: Standardization of data for each criterion

Step 3: Calculate the value of the Index by summing the multiplication of the weighting with the standard value of each criterion.

4.2. Index values for Demand

Demand of Print Media in light traffict done with the approach the situation and approach around traffict light activity within a radius of 500 meters. With this approach then there are six criteria for the request as follows:

1. The amount of the trade center in a radius of 500 meters
2. The number of health centers within a radius of 500 meters
3. The number of financial centers within a radius of 500 meters
4. The number of gas stations within a radius of 500 meters 2
5. The number of educational centers within a radius of 500 meters
6. The number of Places of Worship within a radius of 500 meters

In accordance with step Model Index, the first done is to do the weighting of each criterion the appropriate level of importance which the total amount of weighting is 50%. Weighting 6 above criteria can be seen in table 2.

Table 2: Weighting 6 criteria of demand

No	Criteria	Weight
1	The amount of the trade center in a radius of 500 meters	0,12
2	The number of health centers within a radius of 500 meters	0,10
3	The number of financial centers within a radius of 500 meters	0,09
4	The number of gas stations within a radius of 500 meters	0,08
5	The number of educational centers within of 500 meters	0,06
6	The number of Places of Worship within of 500 meters	0,05
	Total	0,5 (50%)

4.3. Index values for Supply

Offers of Print Media in light traffict approach sales activities performed by the print media. With this approach then there are six criteria for the request as follows:

1. The number of newspaper hawkers
2. The number of magazine hawkers
3. Sales Omzet of Newspapers
4. Sales Omzet of Magazine
5. Total Sidewalks
6. Number of Retailers in a radius of 200 meters

In accordance with step Model Index, the first done is to do the weighting of each criterion the appropriate level of importance which the total amount of weighting is 50%. Weighting 6 above criteria can be seen in Table 3.

Table 3: Weighting 7 criteria of supply

No	Criteria	Weight
1	The number of newspaper hawkers	0,13
2	The number of magazine hawkers	0,11
3	Newspaper Omzet	0,08
4	Sales Omzet of Magazine	0,07
5	Total Sidewalks	0,06
6	Number of Retailers in a radius of 200 meters	0,05
	Total	1 (50%)

V. RESULTS AND DISCUSSION

5.1. RESULTS

The results of research in the form of software that has the following steps:

1. Analysis of the buffer 500 meters from the location of traffic
2. Potential Value of Supply and Final Score Market Potential Index

In detail, each output is shown in Figure 2 and 3.

Figure 2: Analysis of the buffer 500 meters from the location of traffic

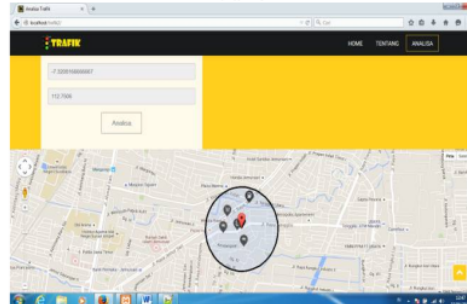


Figure 3: Potential Value of Supply and Final Score Market Potential Index



Print media market potential in the region of East Surabaya consisting of seven districts are shown in Table 4.

Table 4: Potential print media market in Surabaya East

No	District	Score					Total
		5	4	3	2	1	
1	Gubeng			1	5		6
2	Gunung Anyar				1		1
3	Mulyorejo			2	2		4
4	Rungkut			2	3		5
5	Sukolilo				5		5
6	Tambaksari			3	1		4
7	Tenggiling Mejoyo			1	4		5
				9	21		30

Description:

Score 5: Very Feasible

Score 4: Feasible

Score 3: Moderate

Score 2: Not Feasible

Score 1: Very Not Feasible

There are 9 traffic lights (30%) received a score of 3 (Moderate) and 21 (70%) received a score of 2 (Not Feasible). The total traffic light is 30.

DISCUSSION

The demand for print media is lower than supply on traffic light in the region of East Surabaya. These is indicated by the index value of the potential market that scores 2 (not feasible) by 70% and get a score of 3 (moderate) by 30%. There is no traffic light that scores 4 (feasible) or 5 (very feasible). The recommendations of this study validate the model generated with the field situation, when there is a margin of error or gap above 20% then done remodeling. With the remodeling of the errors found acceptable gap so that the software can be applied in the field.

ACKNOWLEDGMENTS

The writer expresses his gratitude for the grant received from The Government of Indonesia especially for The Directorate General of Higher Education, Research Competition Grant, and Indonesia School of Economics (STIESIA) Surabaya in carrying out of the analysis.

REFERENCES

- [1]. Bahrawi Sanusi. 2004. Tokoh Pemikir dalam Mashab Ekonomi. Rineka Cipta
- [2]. Iskandar, Putong. 2005. Teori Ekonomi Mikro. Jakarta. Mitra Wacana Media
- [3]. Kang Tsu Chang, 2008. Introduction to Geographic Information Systems. Singapore: McGraw Hill International Edition
- [4]. Lipsey, Richard G. 1993. Pengantar Makro Ekonomi. Jakarta. Erlangga
- [5]. Sadono Sukirno. 2005. Mikro Ekonomi, Teori Pengantar. Edisi ketiga. Jakarta. PT Raja Grafindo Persada
- [6]. Sahat Simbolon. 2007. Teori Ekonomi Mikro. Medan. USU Press.
- [7]. Suherman, Rosyidi. 2000. Pengantar Teori Ekonomi: Pendekatan Kepada Teori Ekonomi Mikro & Makro. Jakarta. Raja Grafindo Persada.

THE DEVELOPMENT MODEL OF DEMAND-SUPPLY PRINT MEDIA IN TRAFFIC LIGHT BASED OF GEOGRAPHIC INFORMATION SYSTEM IN EAST-SURABAYA

ORIGINALITY REPORT

22%

SIMILARITY INDEX

15%

INTERNET SOURCES

1%

PUBLICATIONS

7%

STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Postgraduate Schools - Limkokwing University of Creative Technology Student Paper	6%
2	businessdocbox.com Internet Source	6%
3	media.neliti.com Internet Source	4%
4	www.worldresearchlibrary.org Internet Source	2%
5	jurnal.narotama.ac.id Internet Source	2%
6	www.ipedr.com Internet Source	1%
7	pdffox.com Internet Source	1%
8	Sutama, Harun Joko Prayitno, Sabar Narimo, Naufal Ishartono, Diana Purwita Sari. "The	1%

development of student worksheets based on higher order thinking skill for mathematics learning in junior high school", Journal of Physics: Conference Series, 2021

Publication

Exclude quotes On

Exclude matches Off

Exclude bibliography On

THE DEVELOPMENT MODEL OF DEMAND-SUPPLY PRINT MEDIA IN TRAFFIC LIGHT BASED OF GEOGRAPHIC INFORMATION SYSTEM IN EAST-SURABAYA

GRADEMARK REPORT

FINAL GRADE

GENERAL COMMENTS

/0

PAGE 1

PAGE 2

PAGE 3

PAGE 4
