

THE RELATIONSHIP BETWEEN SOCIAL, ECONOMIC, AND PHYSICAL FACTORS AND THE SETTLEMENT OF SOCIETY LIVING IN CONSERVATION AREA (Case Study: Settlement in Railway Borders Area—Malang City, Indonesia)

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Abstract

If we see the process of settlement establishment occupying conservation areas such as railroad border, it will not be separated from the symptoms of society economy inability characterized by low income and that makes people unable to reach house prices offered in the appropriate areas. Jodipan Urban Village and Kota Lama in Malang City are densely populated areas passed by railroad line, and along the railroad border there are settlements. This study aims to measure the relationship between socio-economic conditions and physical condition of residence where people live in the railway border area.

The data analysis techniques used in this research were non-parametric quantitative by using frequency distribution table and chi square analysis.

Based on the results of Coefficient Contingency value calculation, it is proved that livelihood types and land rental price factors have the most significant relationship on the establishment of settlements around the area of railway border in Jodipan Urban Village and the Kota Lama, Malang City.

Keyword: *Conservation Areas, Settlement at Railway Borders Area, Socio-Economic and Physical Factors.*

1. Introduction

Human beings possess amazing ability to adapt to its environment. Almost all habitats are dwelled by human beings, from coast to Andes high mountain range, from tropical forest, desert, to arctic area which is cold and covered with ice. With their great adaptation ability, human population always increases and ready to dwell in a new habitat (Sarwono, 1992).

Soemarwoto (1991) explained that natural environment quality cannot be easily determined because people's perceptions on certain quality vary one another. With particular formula, however, we can argue that once people feel comfortable living in certain place, they will subsequently appreciate it and value its quality. The comfort they feel is due to several factors, such as sufficient economic resources, climate condition, and other natural factors. The feeling of comfort is very subjective. It is not the same as pleasure; it is an indication that the people are eager to stay there. There are particular factors that dominate the feeling "at home". The quality of environment is a subjective judgment which is related with psychological and socio cultural aspects of the society living in it.

Life quality is a multidimensional and complex thing, which is much related with economic, social, cultural, psychological, and environmental factors (Halim D. 2005). Essential life need is called basic life need. People's perceptions about basic needs vary due to social, cultural, economic, and time factors as well as short-term and long-term need consideration. Life quality basically depends on the basic need fulfillment of each individual. The better the basic needs are fulfilled, the better the life quality is. The life quality is very often improved when unessential (tertiary) life needs can also be fulfilled. However, when the basic needs cannot be

fulfilled, the fulfilment of unessential (tertiary) life needs does not mean anything (Soemarwoto 1991). According to Soemarwoto (1991), human life quality is determined by three things:

1. The fulfillment of life needs as living beings, called basic needs.
2. The fulfillment of life needs as human beings, called cultural beings' life needs.
3. The fulfillment of need of ability to choose, known as various alternative ownership.

The condition of settlement environment quality can be measured based on the following aspects: physical condition of the place for living, type of the place for living, house ownership, neighboring environment, and availability of facilities (Kuswartojo, T., et al, 2005).

The process of crowded settlement emerging on conservation area like railway border area is due to economic problems indicated by low income level and low paid jobs which make them unable to afford proper housing unit. Therefore, the growing settlement area needs certain control through cooperation among government, private institution, and society.

In some cities, there have been many people living around the railway border with standard daily facilities such as electricity and clean water. This phenomenon requires firm legal action from both government and The Indonesian Railways Co (PT. KAI) because this can cause many problems to the environment cycle.

Malang is a city famous for different functions written in *Tri Bina Cita* (three principles) of Malang, consisting of education city, industry, and tourism. Just like any other city, Malang also has urban life problem such as poor housing and home condition, insufficient main facilities, and improperness of the area for living. It is indicated from crowded or shabby settlement around railway border area which according to the Law is chosen and inaugurated as conservation area.

Jodipan and Kota Lama are two regencies located near the city center; the location enable the people to access their work place easily. Cheap land and low land rent cost are one of the main reasons why the society chooses to live around the railway border. The utilization railway border area as a place for living broke the Malang Local Government Law Chapter 49 Number 1, 2, and 4/ 2011 about Spatial Management of Malang City which states that the Local Government forbade the establishment of settlement around railway border area and protect this area from it. However, in reality, the number of citizens who choose to live around the railway border increases. It is important, then, to investigate why the citizens chose to live around railway border and formulate the relationship between the two factors.

The purpose of this research is to identify the relationship between economical and physical condition of the society living around the railway border area.

2. Research Method

2.1. Research Site

The research location focuses on the settlement location of the society living around railway border of Malang city with the road and line as the physical border.

North	: Jl. Mangun Sarkoro –Jodipan Subdistrict
South	: Jl. Raya Kebalen –Kedungkandang Subdistrict
East	: Railway border line
West	: Railway border line

Administratively, the research site is part of Jodipan and Kotalama regencies, which substantively does not distinguish studies based on administration border.



Figure 1. Research Site

2.2. Research Method

Data analysis techniques that will be used in the research is non-parametric quantitative technique using frequency distribution table and *chi square* analysis.

Frequency distribution is data composition according to certain classes (Hasan, 2005). According to Suharyadi and Purwanto, frequency distribution means grouping the data into several categories that show many data in each category and each data can be included into two or more categories (2003). The frequency distribution analysis is used in the analysis of this research to formulate economical social factor and physical factor of the settlement that influence the society to live at the railway border area.

Furthermore, according to *Chi Square* analysis, to identify the relationship between economical and physical condition of society living at the railway border area, Sugiono (2011) argues to use *Chi square* as the

statistical technique to test hypothesis when in certain population there are two or more classes with nominal data and big samples. The basic *chi square* analysis used is:

$$X^2 = \sum \frac{(f_0 - f_h)^2}{f_h}$$

Which means:

- X^2 = Quadrate Chi
- f_0 = Observed frequency
- f_h = Expected frequency

3. Results and Discussion

The analysis result indicates that:

- a. The social economical factor that influences the society to live at railway border area in Jodipan and Kotalama districts is the fact that they are originally from the districts (49,50%). Another factor that motivates them to live there is the fact that they have been living there for a long time (37,50%). Some of them have even been there since they were born. Besides there two factors, 22,77% of the reasons they live there is because the livelihood around the railway border is getting better, although not much, and their life depends on it. Easy access to obtain jobs around the place also influences them to live there (19,80%). The location which is close to the city square enables them to access the work place easily and work as sellers. Another reason is family factor (19,80%); some of them who have married still live with their parents, live on land or house that was inherited by their parents, or live with the family that have settled in that place first.
- b. Physical factor that influences the society to live at railway border area in Jodipan and Kotalama districts is good infrastructure service, with the highest percentage (20,24%). It is stated by Turner (1968) that the choice of living location is mostly determined by the distance factor, distance from house to workplace; however, at the research site, the researcher found that infrastructure service is the most dominant factor with the highest percentage. The infrastructure services such as water network, electricity, road, and drainage are provided by the government around the railway border which make the society choose to live there despite the fact that it violates the Law. Easy access to the city center has 19,05% influence. It is well known that the distance from the railway border to city center is close enough, only for 1-1,5 kilometers. This close distance helps them to obtain their jobs easily and buy daily needs quickly. Expensive land price also drives them to choose to stay at the railway border (15,08%). The society chooses to live there because it is cheap; although some of them have to live on rented land, but the rent cost is low. The close distance between workplace and their houses influences them to live there too (13,10%) because they do not have to pay for transportation and can save more money to fulfill their daily needs. Another reason is the legal land status of the land (11,51%). Although the fact that they live there violates the Law, some of them, however, own the land with legal certificate. This kind of certainty

ensures them to choose the place for living. Beside the legal land status, the house status is also legal, which drive the society even more to live at the railway border (10,32%). Although their living there violates the law, they could build house at that area and the permission was also granted by the government. That is why the society chooses to live around the railway station. Another reason why they live there is because the location is close to society service center (9,52%); they do not have to go far away to get services they need and whatever they need they can get it soon such as health, education, and others. The last reason why they choose the place is because of the low the cost of the land rent (1,19%). The rent the society has to pay for living at the railway border belonging to The Indonesian Railways Co (PT. KAI) is affordable which makes it even reasonable for them to stay there. Based on the relationship analysis on socio economical and physical factors and the reasons why the society choose to live at the railway border in Jodipan and Kotalama subdistricts, it can be inferred that these factors have the following relationship:

- The kind of livelihood is related to the land rent cost factor
- The amount of money they earn is related to the land price.
- The kind of livelihood is related to house status factor.
- The kind of livelihood is related to house distance to workplace.
- The length of period of living at the railway border is related to land price.
- The family relationship (kinship) is related to house status factor.

Based on the calculation of *Coefficient Contingency* to see the relationship between variables, in which when CC value is close to 1 then the relationship is stronger while when it is close to 0 then the relationship is weaker. In this analysis, it is concluded that the kind of livelihood and the land rent cost are the factors that has the strongest relationship because the value is CC 0,78 while the weakest relationship is between family relation and house status factors with value CC 0,52.

4. References

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