

**DETERMINING THE MARKET LEADER OF RESIDENTIAL HOUSING AND PROPERTY USING
ANALYTICAL HIERARCHY PROCESS (AHP)
CASE STUDY : CITRALAND AND TAMANSARI METROPOLITAN IN MANADO**

*MENENTUKAN MARKET LEADER DARI PENGEMBANG PROPERTY DAN PERUMAHAN
MENGUNAKAN ANALITIKAL HIERARKI PROSES (AHP)
STUDI KASUS : CITRALAND DAN TAMANSARI METROPOLITAN, DI MANADO.*

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Abstract : In Manado, there's Citraland and Tamansari Metropolitan. As the result of modernization and development in this city that increasing day by day, it's helps people and the economic waves in this area. Home and property are readily available and come right to the people to live in modern area. People can choose which place they want to live in. This is particularly so in Manado because of the fast pace of economic development and the limited availability of land. Rapid economic growth has increased the demand for more and better residential, commercial, and other premises. Property development and especially redevelopment have to fulfill these fast-changing requirements. This research aims to know which criteria is most important for customer in selecting a property and housing development in Manado and the market leader of property and housing development for the customer. This research used analytical hierarchy process with the sample which 75 respondents that were obtained from citizen in Manado. The result from this research shown that price is the most important criteria for the consumer to choose a property and housing development. The consumer wants an affordable price for the property. Tamansari is the market leader of residential housing and property.

Keywords : *analytical hierarchy process, marketing, market leader, consumer purchase decision*

Abstrak : Di Manado, ada Citraland dan Tamansari Metropolitan. Sebagai hasil dari modernisasi dan pembangunan di kota ini yang meningkat dari hari ke hari, itu membantu orang dan gelombang ekonomi di area ini. Rumah dan properti sudah tersedia dan langsung ke masyarakat untuk tinggal di daerah modern. Masyarakat dapat memilih tempat yang mereka inginkan. Hal ini terutama terjadi di Manado karena laju perkembangan ekonomi yang cepat dan terbatasnya ketersediaan lahan. Pertumbuhan ekonomi yang cepat telah meningkatkan permintaan untuk tempat tinggal, komersial, dan lainnya yang lebih banyak dan lebih baik. Pengembangan properti dan terutama pembangunan kembali harus memenuhi persyaratan yang cepat berubah ini. Penelitian ini bertujuan untuk mengetahui kriteria mana yang paling penting bagi pelanggan dalam memilih properti dan pembangunan perumahan di Manado dan pemimpin pasar properti dan pembangunan perumahan bagi pelanggan. Penelitian ini menggunakan analytical hierarchy process dengan sampel 75 responden yang diperoleh dari warga di Manado. Hasil dari penelitian ini menunjukkan bahwa harga adalah kriteria yang paling penting bagi konsumen untuk memilih properti dan pembangunan perumahan. Konsumen menginginkan harga yang terjangkau untuk properti. Tamansari adalah pemimpin pasar properti dan pembangunan perumahan. Pengembang perumahan perlu untuk meningkatkan performa dari seluruh kriteria agar dapat menjadi pemimpin pemasaran.

Kata Kunci : *analitikal hierarki proses, pemasaran, pemimpin pasar, keputusan pembelian konsumen*

INTRODUCTION

Research Background

In this era of globalization, the competition is keen when business begins to appear in all business sectors. To win the competition, companies must be able to provide satisfaction to its customers. The construction growth for the residential property in gated community Manado had reached its highest growth. Increasing purchase intention of the house buyers resulted in huge increase in the residential housing price in gated community. Since the gated community started to become a trend as a preferred choice for people to stay in, therefore, this study seeks to discover the reason for people to purchase residential properties. (Wangke, 2014).

Efficient property and housing markets are important for urban and economic development. This is particularly so in Manado because of the fast pace of economic development and the limited availability of land. Rapid economic growth has increased the demand for more and better residential, commercial, and other premises. Property development and especially redevelopment have to fulfill these fast-changing requirements. This means that property and housing markets have to be allowed to respond effectively to the new environment. Free and unfettered markets provide the best assurance for meeting this challenge.

Irohman *et al* (2011) posit that in real estate agency practice, where the market is fraught with dearth of information, the role of the estate agent cannot be overemphasized particularly in bringing together parties of divergent interest in attaining specific goals.

Araloyin and Ojo (2011) revealed what real estate consumers in estate agency practice prioritize in Lagos metropolis which include courtesy, provision of service as promised, frequent communications, exact time services would be performed and personal attention. This implies that quality is expected in real estate services.

This implies that property service is tasked if an agent is to claim any achievement. In accordance with the codes of conduct of NIESV (2005), the following approaches are allowed in real estate marketing: site or bill boards, direct marketing, press marketing, brochure/bulletin and personal contact ethically.

The housing industry is crucial for sustainable development of every country. Housing is a basic need that can enhance the quality of life. Owning a house is therefore the main aim of individuals. However, affordability has become a critical issue towards homeownership. In recent years, housing price in the main cities has increased tremendously to an unaffordable level. (Kamal, Hassan, and Osmadi, 2016)

Environment plays important roles in consumer preferences in the needs of selecting a residential housing in gated community. Environment becomes a priority consideration by the respondents that influence and affect the most.

Construction growth for the residential property in gated community Manado had reached its highest growth of 7,68% in Q2 2014. Increasing purchase intention of the house buyers resulted in huge increase in the residential housing price in gated community. Since the gated community started to become a trend as a preferred choice for people to stay in, therefore, this study seeks to discover the reason for people to purchase residential properties.

Manado is the capital city of the North Sulawesi province of Indonesia. Manado is located at the Bay of Manado, and is surrounded by a mountainous area. The latest official estimate (January 2015) is 871,390 people live in Manado city, making it the second-largest city in Sulawesi after Makassar. The biggest revenue from investment in Manado which is from trading, hotel, restaurant, and property and housing development above 500 million rupiah. And now is growing and moving to more than 100 developers and property in North Sulawesi.

This has been the key element in Manado's successful economic development and has allowed her to meet the challenges of rapid economic growth under conditions of limited land supply. The government uses the sea for reclamation.

Research Objectives

Based on the research problem, the objectives of this research are to find out a significant effect of :

1. Which residential housing or property is the most selected between Citraland and Tamansari Metropolitan.?
2. What key criteria affect selecting residential housing and property?

THEORETICAL REVIEW

Marketing

Dedejust, (2013:6) Marketing is the force that harnesses a nation's industrial capacity to meet the society's material wants. It uplifts the standard of living of people in society.

Market Leader

Nawar, (2015:7) The market leader is dominant in its industry. It has substantial market share and often extensive distribution arrangements with retailers. It typically is the industry leader in developing innovative new business models and new product (although not always). It tends to be on the cutting edge of new technologies and production processes. It sometimes has some market power in determining either price or output. From four dominance strategies, it has the most flexibility in crafting strategy. Price, which is an enduring element of the original P's of the marketing mix, may generally be perceived in terms of the specific monetary value that a customer attaches to goods and services.

Consumer Preferences

Larasati, (2013) Consumer preferences are defined as preferred or disliked by a person against a good or service consumed. Consumer preferences show consumers' preference for variety selection of existing products. Consumer preference is a general term applied to all facets of marketing products and services.

Philips, Maddala and Jhonson, (2002: 28). The concept of preferences comes from economic theory, with preferences defined as individual's utility for consuming goods and services.

Pyndick and Rubinfeld (2013) described consumer preferences in such a coherent way given the vast number of services that our economy manages and provides for purchase as well as the diversity of personal taste must come to comparing different groups of item available of service.

Consumer Decision Making

Engel, Blackwell, and Miniard (1995: 156) Consumer make decisions by allocating their scarce income across all possible goods in order to obtain the greatest satisfaction. Formally, we say that consumers maximize their utility subject to budget constraint. Utility is defined as the satisfaction that a consumer derives from the consumption of a good., the final decision-making process on the continuum applicable to initial purchases is limited decision-making. This process of decision-making is characterized by little information search and evaluation before purchase and the consumer not having the time, resources or motivation to engage in extended decision-making. The consumer will, therefore, simplify the process by reducing the number and variety of information sources and alternatives as well as the evaluation criteria.

Previous Research

Kamal, Hasan, and Osmadi (2016). The aim of this study is researching the housing industry is crucial for sustainable development of every country. Housing is a basic need that can enhance the quality of life. Owning a house is therefore the main aim of individuals. However, affordability has become a critical issue towards homeownership. This paper contributes towards better understanding on developers' view on how the housing price is determined and form a basis for government to help tackle the housing affordability issue.

Shaibu (2015). The purpose of this studies at examining the important attributes and strategies for real estate marketing peculiar to metropolitan Ibadan property market. The results of the chi-square, however, indicate that while there is no statistical relationship between the gender status of the respondents and the two most important attributes adopted, there is indicated statistical relationship between the professional years of agency practice and the two most important attributes for real estate marketing.

Wangke, (2014). . The aim of this research highlighted several criteria that would encourage people to consider when buying a residential house in gated community. This research are to analyze consumer preferences criteria on residential housing in gated community. the result all the respondents indicate that all criterion were considered important for decision making in selecting residential housing in gated community. It can be seen clearly in the result of overall criterion on consumer preferences.

Ong (2013). The aim of this study is to measure the relationship between macroeconomic variables and the housing price. The general finding of this paper strongly suggests that housing bubbles in the Malaysian residential property market are becoming bigger and stronger. The paper is useful for speculators, investors and buyers to know which factors to account for in housing investment decision.

Conceptual Framework

In this research conceptual framework is provided to create a comprehensive understanding of a phenomenon or phenomena that is being observed

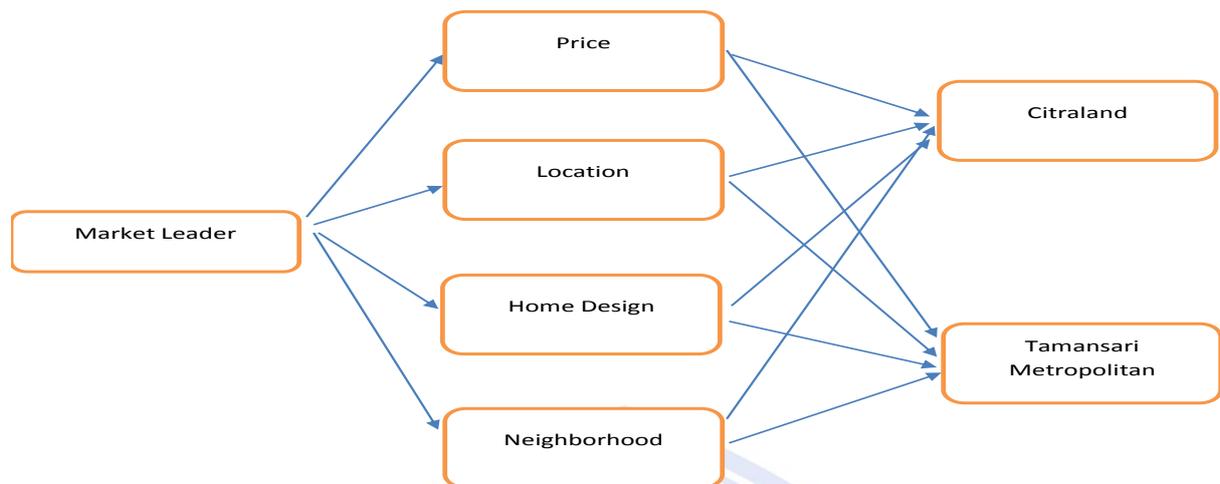


Figure 1. Conceptual framework

Source: *Theoretical Framework, 2018*

Type of Research

This research is quantitative research. Type of research is an exploratory research to analyze consumer preferences criteria on residential housing in gated community Manado.

Place and Time of Research

This research will be conducted in both of location property development in Manado, on July - August 2018.

Population and Sample

Sekaran and Bouggie (2010) defined population is the entire group of people, events, of things of interest that the researcher wishes to investigate. The population that is mainly observed in this current research is prospective consumers from three alternatives (Citraland and Tamansari). The sampling design is Purposive sampling to 75 respondents that is the way researcher do the observation and the way of getting the information in effective and efficient way.

Data Collection Method

Data collection technique use in this study is the data that collected from the questionnaire of respondent by direct survey, go to the field an spread the questionnaire.

Analytical Hierarchy Process

The Analytic Hierarchy Process (AHP) is a mathematical technique for multi-criteria decision making. Saaty (2008). It enables people to make decisions involving many kinds of concerns including planning, setting priorities, selecting the best among a number of alternatives, and allocating resources. The Analytic Hierarchy Process (AHP) is a powerful and flexible decision making process to help people set priorities and make the best decision when both qualitative and quantitative aspects of a decision need to be considered. By reducing complex decisions to a series of one-on-one comparisons, then synthesizing the results, AHP not only helps decision makers arrive at the best decision, but also provides a clear rationale that it is the best.

We conducted AHP in three step:

1. Perform pairwise comparisons
2. Compute the relative weights
3. Assess consistency of pairwise judgments

Operational Definition and Measurement of Research**Table 1 Pair Wise Scale**

Intensity of importance	Definition	Explanation
	equal importance	two factor contribute equally to the objective
	somewhat more important	Experience and judgement slightly favor one over the other
	Much more important	Experience and judgement strongly favor one over the other
	Very much important	Experience and judgement cey strongly favor one over the other. Its importance is demonstrated in practice
	Absolutely more important	the evidence favoring one over the other is of the highest possible validity
	Intermediate values	When compromise is needed

Source: Data Processed (2018)

1. Synthesization The next step in AHP is to prioritize the decision alternatives within each criterion. Steps in synthesization are:
 - a) Sum the values in each column of the pairwise comparison matrices.
 - b) Divide each value in each column of the pairwise comparison matrices by the corresponding column sum-these are normalized matrices.
 - c) Average the values in each row of the normalized matrices-these are the preference vectors
 - d) Combine the vectors of preference for each criterion into one preference matrix that show the preference for each criterion
2. Develop a pairwise comparison matrix for the criteria.
3. Compute the normalized matrix by dividing each value in each column of the matrix by the corresponding column sum.
4. Develop the preference vector by computing the row averages for the normalized matrix.
5. Compute an overall score for each decision alternative by multiplying the criteria preference vector by the criteria matrix.
6. Rank the decision alternatives, based on the magnitude of their scores computed in step 6.

RESULT AND DISCUSSION**Result****Table 2 Result of Overall Criteria Determining The Market Leader of Residential Housing and Development**

Price	Location	Home Design	Neighborhood
0.530008166	0.221598275	0.115287348	0.133106211

Source: Data Processed (2018)

In this result shows that the highest score is price (0.530). It means price is the factor that have influence the most people to choose a home or property among the others criteria. The second highest score is location

(0.221), neighborhood is in third position with score (0.133), and the rest filled by home design (0.115). The overall inconsistency is 0.02232, which means the degree of inconsistency in general is satisfactory (acceptable) when the overall consistency < 0.10 then the data comparison in this result is valid and consistent.

Table 3 Result of Pair wise Comparison Price

Citraland	Tamansari Metropolitan
0.333	0.667

Source: Data Processed (2018)

In this result based on price shows that Tamansari Metropolitan is the most preferred by respondents with consistency ratio of (0.667), and the second is Citraland with the score by respondents (0.333) and the overall inconsistency for result of price is (0.00), it means the data comparison by respondents is valid and consistent. The result of pair wise comparison of price in Analytical Hierarchy Process, the finding shows Tamansari is more preferred by the price.

Table 4 Result Pair Wise Comparison Location

Citraland	Tamansari Metropolitan
0.249	0.750

Source: Data Processed (2018)

In this result based on location shows that Tamansari Metropolitan is the most preferred by respondents with consistency ratio (0.750), and the second is Citraland with the score by respondents (0.249) and the overall inconsistency for result of price is (0.00), it means the data comparison by respondents is valid and consistent. The result of pair wise comparison of location in Analytical Hierarchy Process, the finding shows Tamansari is more preferred by the location.

Table 5 Result Pair Wise Comparison of Home Design

Citraland	Tamansari Metropolitan
0.750	0.249

Source: Data processed (2018)

In this result based on home design shows that Citraland is the most preferred by respondents with consistency ratio of (0.750), and the second is Tamansari Metropolitan with the score by respondents (0.249) and the overall inconsistency for result of home design is (0.00), it means the data comparison by respondents is valid. The result of pair wise comparison of home design in Analytical Hierarchy Process, the finding shows Tamansari is more preferred by the home design.

Table 6 Result of Pair Wise Comparison of Neighborhood

Citraland	Tamansari Metropolitan
0.8	0.2

Source: Data Processed (2018)

In this result based on neighborhood shows that Citraland is the most preferred by respondents with consistency ratio (0.8), and the second is Tamansari Metropolitan with the score by respondents (0.2) and the overall inconsistency for result of neighborhood is (0.00), it means the data comparison by respondents is valid

and consistent. The result of pair wise comparison of neighborhood in Analytical Hierarchy Process, the finding shows Tamansari is more preferred by the neighborhood.

Table 7 The Result of The Market Leader of Residential Housing and Property

Tamansari Metropolitan	Citraland
0.584	0.416

Source: Data Processed (2018)

Based on the overall data, customer will choose Tamansari Metropolitan as the preferred and market leader of property and housing development in Manado compares to the other alternatives. Tamansari have the highest score with 0.584, and Citraland have score 0.416. In this result the overall inconsistency indicated = 0.002, it shows that the comparison of data in this research is valid and consistent.

Discussion

In Analytical Hierarchy Process (AHP), the criterion developed as the measurement of alternatives residential housing has been compared. AHP determines the relative importance or weight of the criteria, to rank the criteria from most important to least important. A criterion with the highest average weight indicates the priority criteria among others.

Based on the overall data, customer will choose Tamansari Metropolitan as the preferred and market leader of property and housing development in Manado compares to the other alternatives. that the result of analysis from potential consumer to buy a property or housing development, they prefer to choose Tamansari as the market leader for housing and property development among the other alternatives, Citraland. For an affordable price, Tamansari has the highest score because they offered many benefit for the consumers. Tamansari also has the highest score for location criteria which also important for consumers when they choose a home or property.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

There are constructive findings that can be concluded from the overall result in this research, which are listed as follow

1. First, based on four criteria (price, location, home design, and neighborhood), there are top criteria that has the most influence for consumer to choose property and housing development in Manado city. In the first place and got the highest total score goes to price. According to the data comparison that developed in pair wise comparison of Analytical Hierarchy Process (AHP), price become the most preferred criteria for consumer when choose home and property in Manado city. Second position of the highest score goes to location. Third position is for neighborhood criteria. The data shows that price, location and neighborhood are the most important thing that influence consumer to choose a property and housing development. The rest criteria that are home design are not the main things that influence the consumers.
2. Second, based on the overall result that developed using Analytical Hierarchy Process (AHP), shows that Tamansari Metropolitan become the market leader to choose a property and housing development in Manado City by the consumers, followed by Citraland in the last place.

Recommendations

There are practicals recommendations that can be concluded from the overall result in this research, which are listed as follow:

1. Price, location and neighborhood are the most important things that influence consumer in selecting a property and housing development particularly in Manado. Therefore, every property and housing development in Manado needs to pay attention seriously toward those factors. Consumer will seek an affordable price with good location and neighborhood for their living place. Neighborhood plays important roles in consumer preferences in the needs of selecting a residential housing in gated community. It becomes a priority consideration by the respondents that influence and affect the most.

Therefore, every housing developers particularly in Manado has to pay attention seriously toward this factor. For customers, they absolutely would not select a residential housing that not promoting positive personal development of a community. Moreover, for housing developer, security availability against crime or disaster is crucial part to keeping customer loyalty. Regarding above, housing developer need to improve and keep their overall performance related to. From the data, Tamansari Metropolitan is the most preferred because it has an affordable price and they provide many benefits to consumer. That is why Tamansari more preferred than Citraland in this research.

2. Citraland as the competitors of Tamansari Metropolitan, have to improve their positioning in giving price, adding more promotions and make some different thing which is unique or something that the competitors does not have. It can attract more consumers especially pay attentions to some criterion that make consumers tend to choose Tamansari, such as affordable price.

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