

ANALYSIS OF DOMINANT FACTORS AFFECTING QUALITY PERFORMANCE ON HOUSING PROJECTS IN BANYUWANGI REGENCY

Umi Mutoharoh¹, Made Wena² dan Gilang Id'fi³

¹State University of Malang, email: umi.mutoharoh.1805236@students.um.ac.id

²State University of Malang, email: made.wena.ft@um.ac.id

³State University of Malang, email: gilang.idfi.ft@um.ac.id

Abstract: During ten years the population increased by 32.56 million people. The backlog figure in 2015 was 11.5 million housing units. The demand for housing increases annually by 1.46 million while the supply capacity is 400 thousand housing units. So, there is still a gap of 1.06 million units per year. This gap is a backlog that will increase every year if housing development cannot keep up with the demand for housing. The development of the real estate sector in Banyuwangi is experiencing constant growth. In 2012, the real estate sector grew by 7.11% and then rose to 8.30% in 2013. In 2014 the real estate grew by 9.79%. Housing continues to develop as seen from the number of housing areas until 2018 around 204 locations. The increase in the number of developers in Banyuwangi Regency has not been accompanied by an increase in performance. As happened in the Bumi Emas Residence Housing, it did not match the working drawings. The purpose of this study is to describe the dominant factors that affect the performance of housing quality. As well as describe the factors that affect the quality performance in luxury, medium, and simple housing types. The design of this research is to use the type of quantitative descriptive research. The method used is AHP (Analytical Hierarchy Process) with the help of Expert Choice 11 software. Primary data was obtained from distributing questionnaires. The population in this study is the staff of luxury type housing developers, medium type housing developers, Bumi Emas Residence developers or simple type housing. Determination of research samples using purposive sampling technique. So that the number of samples was determined by 39 staff developers. Respondents in this study were directors, commissioners, financial staff, technical staff, field supervisors, foreman. Based on the results of data analysis, it is concluded that the dominant factor affecting quality performance in housing projects is the human resource factor. Factors that affect the type of luxury housing is human resources. Factors that affect the quality performance of the medium type housing is the implementation method. Factors that affect the quality performance of simple type housing is the work environment factor.

Keywords: Quality Performance, Housing Project, Analytical Hierarchy Process

1. INTRODUCTION

Based on the Ministry of PUPR, the backlog figure in 2015 was 11.5 million housing units. The demand for housing increases annually by 1.46 million while the supply capacity is 400 thousand housing units. So, there is still a gap of 1.06 million units per year (PUPR, 2015). This gap is a backlog that will increase every year if housing development cannot keep up with the demand for housing. Reported from the website of the Cabinet Secretary of the Republic of Indonesia (2021) that the Vice President of the Republic of Indonesia, Ma'ruf Amin said the government would target a reduction in the backlog number to 5 million by 2024 and invite the private sector to participate in overcoming the backlog number, providing decent housing. The government has also made efforts, among others, to provide financing for home ownership, as well as facilitating the licensing of the establishment of construction services and developers. So that more and more construction services and developers are popping up.

The population in Banyuwangi has increased annually by 1.12% per year (BPS, 2020). So the need for housing also increases. Along with the times, people do not

interpret the house as a place to live, but also consider that home ownership is a long-term investment item (Maharani, 2019). This has become one of the factors that led to an increase in the construction and developer services sector in Banyuwangi Regency. The development of the real estate sector in Banyuwangi is experiencing constant growth. In 2012 the growth of the real estate sector was 7.11% then increased to 8.30% in 2013. In 2014 the real estate growth was 9.79% (Kabar Bwi, 2015). Housing continues to experience development in terms of the number of housing areas until 2018 around 204 locations (Rasyid, 2018). So, the property sector in Banyuwangi is experiencing positive growth. The increase in the property business in Banyuwangi Regency has triggered an increase in developers. In 2018 there were 70 developers registered with the Banyuwangi Regency Housing and Settlement Area Service (DPKP) (Rasyid, 2018). The increase in the number of developers in Banyuwangi Regency has not been accompanied by an increase in performance. According to Putri, et al. (2019) stated that several residents complained about the quality of the houses they lived in, such as floor damage to cracks in Banyuwangi housing. This means that developers pay less attention to the quality problem of housing projects. Based on this fact developers are increasing but not accompanied by the quality of housing projects.

The quality of housing greatly influences people in choosing a place to live. According to Putri, et al. (2019) stated that several residents complained about the quality of the houses they lived in, such as floor damage. In housing in Banyuwangi Regency where there are many housings that do not match the age of the building. As happened in Bumi Emas Residence Housing, there were cracked walls and the house did not match the working drawings. This research is very important because it identifies the dominant factors that affect quality performance. These dominant factors can contribute to overcoming the problem of housing quality in Banyuwangi Regency. So that this problem will not be repeated for future housing products. With this research can improve the quality of housing so that housing sales can increase. Then according to Prabowo (2018) a good quality housing product will increase housing consumer satisfaction in Banyuwangi Regency. Every businessperson in the housing development sector should maintain, maintain and even improve work quality and efficiency. So that housing project work can be carried out in accordance with the quality, budget and time that has been planned and pay attention to work safety so that it can increase the selling value of the housing (Mulyadi, et al., 2013). Based on this problem, it is necessary to know the dominant factors that affect the quality performance in construction projects of luxury housing, medium type housing, and simple type housing.

2. METHOD

The research used in this study used a quantitative descriptive research type. This study focuses on identifying quality performance factors in residential construction projects. Quantitative descriptive research is data obtained from a sample of the research population and the description research in question is to obtain information or a description of the factors that affect quality performance on housing construction projects in Banyuwangi Regency. This research process is carried out in stages and interrelated so that the research procedure becomes directed and systematic. The following is a research flowchart or flowchart of this research design:

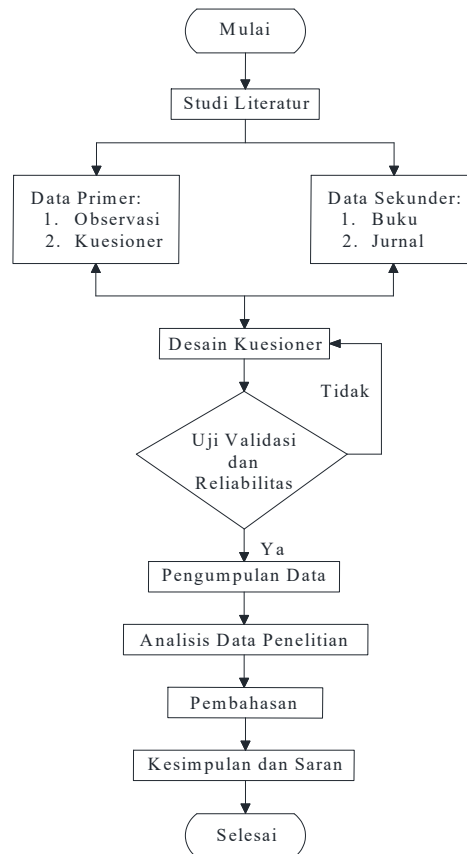


Figure 1. *Flowchart*

The number of samples in this study was 39 staff developers who worked on luxury type housing projects, medium type housing, and simple housing projects. This has met the requirements of quantitative research, which is a minimum of 30 samples (Sugiyono, 2013). Respondents were taken based on their knowledge and abilities as well as certain considerations that were believed to be able to provide answers to the questionnaire according to the research topic. Respondents from this study were directors, commissioners, financial staff, technical staff, field supervisors, foreman. The instrument used in this study was a questionnaire/questionnaire. Questions will be formulated in a questionnaire sourced from several indicators with the aim of obtaining answers and seeking complete information about a problem. Which will be distributed to respondents. The data to be generated is in the form of quantitative data which is then processed. The data is measured using the Saaty scale which is useful for providing a score for the answer choices in the questionnaire/questionnaire. The Saaty scale is an assessment by comparing two alternatives or predetermined criteria with the values contained in the Saaty scale table.

The technique of collecting data is through direct observation or observation and distributing valid and reliable questionnaires to predetermined respondents. In this connection, the researcher compiles a table of questions, then sends it to the respondent to be answered, and after being filled out or answered by the respondent, the questionnaire will be returned to the researcher. The answers from these respondents will be used to analyze the factors that affect the quality performance of housing projects. The data analysis process in this study used the Analytic Hierarchy Process

(AHP) method with the help of expert choice software programs. AHP data processing is described in the following steps:

a. Hierarchical Structure

Preparation of a hierarchical structure that begins with the goal or main objective of research at the top level, namely the factors that affect the quality performance of housing projects. At the second level is the criteria which are research variables. Finally, there are alternative possibilities at the lowest level, namely luxury housing, medium housing, and simple housing.

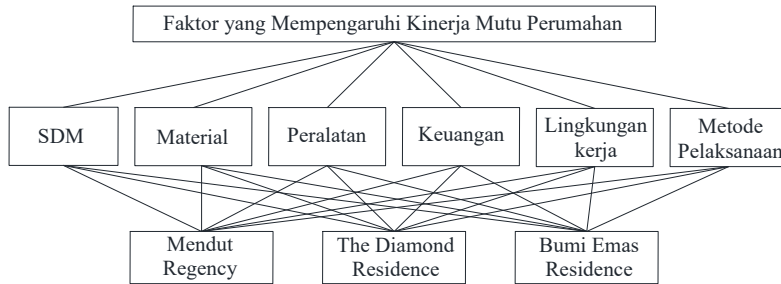


Figure 2. Hirarki Hierarchical Structure

b. Determining Respondents

Input the number of participants who will be used as respondents in the study.

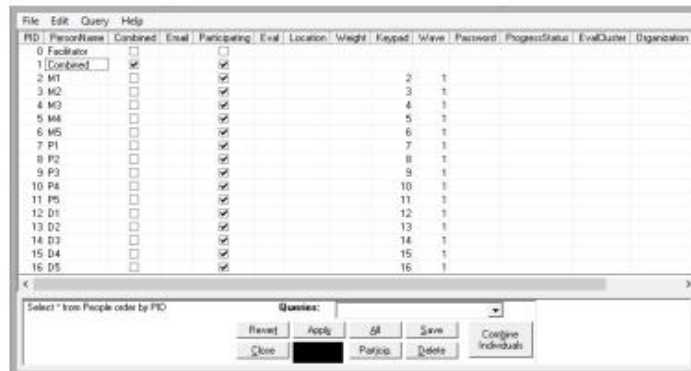


Figure 3. Determination of Respondents

c. Pairwise Comparison of Variables

Calculate the weight of each variable to determine its priority using pairwise comparisons. The results of the pairwise comparisons will be displayed on the pairwise comparison matrix.



Figure 4. Expert Choice

d. Priority Determination

Calculate the weight or priority of each variable (alternative), namely the weight of each housing compared to each variable as above.



Figure 5. Matriks Perbandingan Berpasangan Alternatif Perumahan

e. Consistency Test

Consistency test was conducted to see the inconsistency given by the respondent. Assessments that have high consistency are needed in the hope of producing accurate decisions. If the consistency ratio is <0.1 then the pairwise comparison value in the given criteria matrix is consistent. If the ratio is consistent > 0.1 then the value of pairwise comparisons in the given criteria matrix is inconsistent.

3. RESULT

The results of research that have been carried out on luxury type housing, medium type housing, simple type housing in terms of human resource factors, material factors, equipment factors, financial factors, work environment factors and implementation methods factors. The dominant factor that affects the performance of housing quality is using the AHP method with the help of expert choice software version 11.

	SDM	Material	Peralatan	Keuangan	Lingkungan	Metode Pe
SDM		2,64484	2,7729	2,11052	1,92803	1,67857
Material			2,20565	1,584	1,58777	1,37889
Peralatan				1,47479	1,5922	2,7651
Keuangan					1,31518	2,3228
Lingkungan Kerja						1,68081
Metode Pelaksanaan						

Incon: 0,01

Figure 6. Pairwise Comparison Matrix Between Factors

Based on the results of the pairwise comparison matrix between factors, it is known that the order of the most dominant factors affects the performance of housing quality.

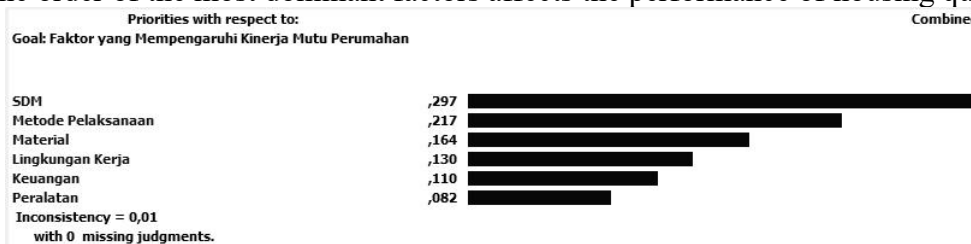


Figure 7. Chart of Assessment of Dominant Factors Affecting Quality Performance

Based on Figure 8, it can be seen that the dominant factor affecting the performance of housing quality is the human resource factor with a weight of 29.7%. With the most dominant housing priority is luxury type housing with a weight of 38.6%.

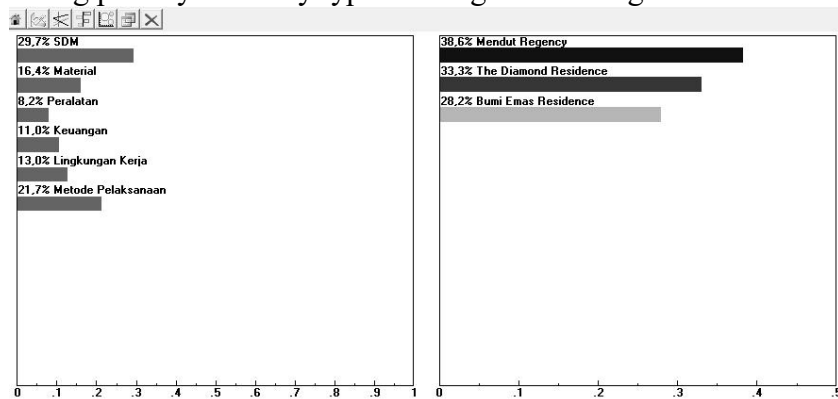


Figure 8. Dynamic Sensitivity Graph

The weighting of factors on each type of housing and indicators affect the performance of housing quality.

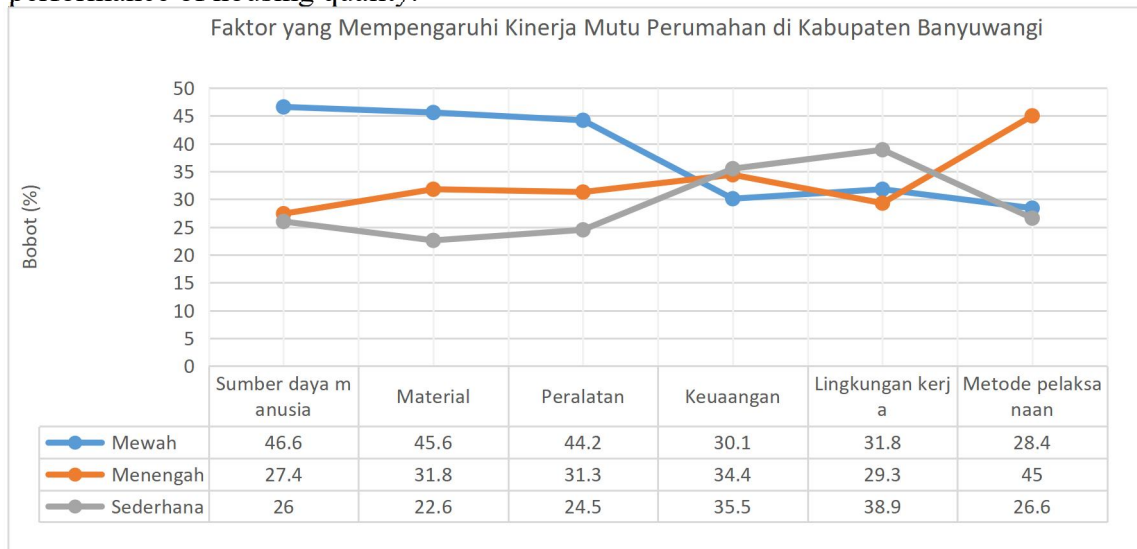


Figure 9. Level 1 Criteria Assessment Chart

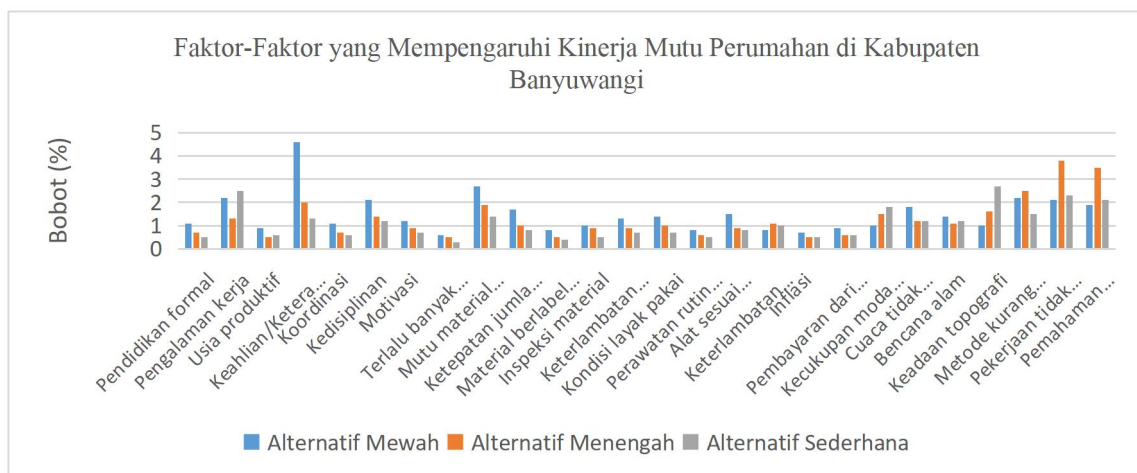


Figure 10. Alternative Level 3 Global Rating Chart

4. DISCUSSION

AHP analysis using Expert Choice software version 11, the dominant factor affecting the quality performance of luxury, medium and simple housing types is the human resource factor. It is known that the weight is 0.297 (29.7%). The human resource factor is one of the determining factors for the success of the quality of a construction project. A project that is not supported by good human resources will not deliver the planned quality of the project. This is in accordance with the research: (1) Nugroho, et al. (2012) mentions that human resources affect the quality performance of housing projects. (2) Permono & Mulyono (2015) human resources are a determining factor for project success if they are supported by the quality of human resources that provide the planned project quality achievements. Indicators of the quality of the workforce in terms of productive age, formal education, coordination between workers, workforce skills.

a. Luxury Type Housing

The factors that influence the quality performance of luxury type housing in the first place are human resources with a weight of 0.466 (46.6%) indicator of expertise/skills. The overall weighting value for the skill/skills indicator is 0.046 (4.6%). This research by Rauzana & Usni (2020) states that work skills and expertise greatly affect quality performance because a lack of workforce expertise can result in poor work produced. In accordance with the results of the study, the factors that affect the quality performance of luxury type housing are the human resources factor with indicators of expertise or skills.

b. Medium Type Housing

The factors that affect the quality performance of the medium type housing are the implementation method factors with a weight of 0.450 (45%) the work indicator is not in accordance with the procedure. The weighting value of the implementation method indicator that is not in accordance with the procedure is 0.038 (3.8%). This is in line with the research by Rauzana & Usni (2020) that the project quality is not appropriate due to the incompatibility of work procedures and quality standards that have been set. The use of appropriate and practical implementation methods is very helpful in completing the work in accordance with the project objectives, namely the right quality, cost and time.

c. Simple Type Housing

The factors that affect the quality performance of the simple type housing are the work environment factors with a weight of 0.389 (38.9%) as an indicator of topography. The weighting value of the topographical indicator is 0.027 (2.7%). this is in line with the research of Mulyadi, et al. (2013) that the physical work environment affects the performance of housing quality. Fahirah, et al. (2013) built a good simple type house on a soil condition that is not too sloping and tends to be flat because it builds soil on that soil condition with a better level of soil stability so that buildings erected on that land are safer.

5. CONCLUSION

Based on the formulation of the problem and the results of research on the factors that affect the quality performance of this housing, the following conclusions can be drawn:

1. Factors that affect quality performance in luxury, medium and simple housing are as follows:
 - a. Factors that affect the quality performance of luxury housing is the human resource factor.
 - b. Factors that affect quality performance in medium-sized housing is the method of implementation.
 - c. Factors that affect quality performance in simple housing are work environment factors.

6. REFERENCES

- Badan Statistik Indonesia. (2021). Hasil Sensus Penduduk 2020. *Berita Resmi Statistik*, (7), 1–8. Retrieved from <https://www.bps.go.id/pressrelease/2021/01/21/1854/hasil-sensus-penduduk-2020.html>
- Fahirah, F., Basong, A., & Tagala, H. H. (2010). Identifikasi faktor yang mempengaruhi nilai jual lahan dan bangunan pada perumahan tipe sederhana. *Jurnal SMARTek*, 8(4), 251–269.
- KabarBwi. (2015). Pertumbuhan Ekonomi Banyuwangi Lampaui Rata-Rata Provinsi Jawa Timur. Retrieved March 16, 2022, from Kabupaten Banyuwangi website: <https://www.banyuwangikab.go.id/berita-daerah/pertumbuhan-ekonomi-banyuwangi-lampaui-rata-rata-provinsi-jawa-timur.html>
- Maharani, S. (Universitas I. N. R. I. L. (2019). *Faktor-Faktor yang Mempengaruhi Masyarakat Memilih Perumahan Subsidi dalam Perspektif Ekonomi Islam*. (116), 1–217.
- Mulyadi, L., Santoso, A. A., & Sulton, M. (2013). Faktor-Faktor yang Mempengaruhi Terhadap Mutu Produk Bangunan Perumahan Grand Permata di Kabupaten Mojokerto. *Info Manpro*, 4(September), 38–48.
- Nugroho, M. S., Bisri, M., & Anwar, M. R. (2012). Kajian Terhadap Implementasi Manajemen Mutu Pada Pengelolaan Proyek Perumahan. *Jurnal Rekaya Sipil*, 6(2), 134–143.
- Permono, S. L., & Mulyono, A. T. (2015). Analisis Pengaruh Penempatan Tenaga Kerja Serta Ketersediaan Material dan Peralatan Konstruksi Terhadap Capaian Mutu Jalan (Studi Kasus : Jalan Nasional D.I.Yogyakarta). *Jurnal Media Komunikasi Teknik Sipil*, (1).
- Prabowo, D. E. (2018). Pengaruh Kualitas Produk, Desain, Kesesuaian Harga, dan Lokasi Terhadap Kepuasan Konsumen Perumahan Puri Bukit Mas di Banyuwangi. *Digital Repository Universitas Jember*, (September 2019), 2019–2022.
- PUPR, K. (2015). Data Backlog Kepemilikan Rumah. Retrieved March 16, 2022, from PPDPP website: <https://ppdpp.id/data-backlog/>
- Putri, M. C., Koesoemawati, D. J., & Trisiana, A. (2019). Analisis Kepuasan Pelanggan Terhadap Sarana Prasarana dan Lokasi Perumahan Menggunakan Metode Quality Function Deployment (Studi Kasus Perumahan Griya Pesona Karangrejo Banyuwangi). *Berkala Sainstek*, 7(2), 53. <https://doi.org/10.19184/bst.v7i2.11942>
- Rasyid, I. (2018). Area Perumahan Berdiri di 204 Lokasi. Retrieved March 16, 2022, from Radar Banyuwangi website: <https://radarbanyuwangi.jawapos.com/ekonomi-bisnis/13/02/2018/area-perumahan-berdiri-di-204-lokasi>
- Rauzana, A., & Usni, D. A. (2020). Kajian Faktor-Faktor Penyebab Rendahnya Kinerja Mutu pada Proyek Konstruksi di Provinsi Aceh. *Media Komunikasi Teknik Sipil*,

26(2), 267–274.

Sekretaris Kabinet Republik Indonesia. (2021). Wapres Dorong Peran Swasta Atasi Backlog Perumahan. Retrieved March 16, 2022, from Sekretaris Kabinet Republik Indonesia website: <https://setkab.go.id/wapres-dorong-peran-swasta-atasi-backlog-perumahan/>

Sugiyono. (2013). *Metode Penelitian Kuantitatif, Kualitatif dan R&D* (19th ed.). Bandung: Alfabeta.