

Analysis of the Architect's Role in the Design Process of Apartment Buildings in the City of Bekasi, Indonesia

Prof. Manlian Ronald A Simanjuntak ^[1] and Adil Mochtar ^[2]

Department of Civil Engineering, Master Study Program Concentration of Construction Management, Faculty of Science and Technology, University of Pelita Harapan, Indonesia

ABSTRACT: The supply of apartments is considered too much, exceeding the rate of demand. Especially apartments in suburban areas of Jakarta. This calculation error continues to occur so that it has the potential to leave problems later. Demand has stagnated in the Serpong, Bekasi, Tangerang and Bogor regions. In these areas there are still many landed house supplies, and people will choose landed homes rather than apartments. The architect as the recipient of the construction service is responsible for the product of the design which will be realized especially into a building. The quality of the work product that will become a building will certainly have a direct impact on the quality of space, especially the city. The city of Bekasi is a developing city that has many complex problems, and often city development is a negative factor for the community. The building that was used as the object of the study was a high rise residential building. Furthermore, the problem of the overall research is to look for factors and variables of the role of the architect in improving the design process performance, find out what the quality criteria of the process of designing an apartment building design, find out what is the role of the architect which is still not yet optimal in the process of designing an apartment building in the city of Bekasi, and finally find out what needs to be done so that the role of the architect in improving the performance of the design process can be optimized. It is expected that the results of this study can produce recommendations to improve the quality of the role of architects, and also optimize the role of design in the process of implementing building specifically in the city of Bekasi. With the increasing quality of architects, the impact that can be produced is a better quality of urban architecture space planning in Bekasi City.

KEYWORDS: architect, apartment, design process, architecture

I. INTRODUCTION

The sales of apartments is considered being oversupplied at Bekasi City, exceeding the rate of demand. This calculation error continues to occur so that it has the potential to leave problems later. This was stated by the Director of Pusat Studi Properti Indonesia (The Indonesian Property Study Center), Panangian Simanungkalit, regarding the prospect of the 2015 property business to Kompas.com, (1/19/2017). "In 2016 alone there were 12,000 units of supply of new apartments and that was not absorbed by all." Demand has stagnated in the Serpong, Bekasi, Tangerang and Bogor regions. In these areas there are still many landed house supplies, and people will choose landed homes rather than apartments, "Panangian said.

The architect as the recipient of the construction service is responsible for the product of the design which will be realized especially into a building. The quality of the work product that will become a building will certainly have a direct impact on the quality of space, especially the city. The city of Bekasi is a developing city that has many complex problems, and often city development is a negative factor for the community. The building that was used as the object of the study was a high rise residential building. Furthermore, the problem of the overall research is to look for factors and variables of the role of the architect in improving the design process performance, find out what the quality criteria of the process of designing an apartment building design, find out what is the role of the architect which is still not yet

International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: www.ijirset.com

Vol. 7, Issue 10, October 2018

optimal in the process of designing an apartment building in the city of Bekasi, and finally find out what needs to be done so that the role of the architect in improving the performance of the design process can be optimized.

II. RELATED WORK

The Design Process

The main architect's services are architectural design work and management of the development process/built environment carried out in the following stages of work. [2],[3]

1. Design Concept
2. Schematic Design
3. Design Development
4. Produce Workshop Drawings

The Architect's Roles

The Architect Code of Ethics and the Architect's Professional Code of Practice are one guideline that demonstrates the obligations and responsibilities of architects to the general public including service users. The role of the Architect was very dominant at the time of design because the architect was the main command in the design process. Supporting experts of other buildings will carry out the development and detailing of designs based on directives from Architects. Therefore the role of the architect in its influence in the quality of design is very large. The role of the Architect mentioned in the Architect's code of ethics are:[1],[4],[5],[6]

- Provide expertise and capabilities in accordance with the standards of performance of certified architectural expertise.
- Meeting the Terms of Reference design that is determined by service users at each stage of work.
- Paying attention to, control, and apply the laws and regulations that apply to the implementation of construction.
- Perform the task of coordinating design work with experts, a group of experts, or other consultants.
- The role of visual communication design ideas.
- Design with sustainable principles.
- Design that accommodates local culture.

High Rise Apartment Building

Apartments are high-rise buildings that are built in an environment which is divided into functionally structured parts in horizontal and vertical directions and is a unit that can be owned and used separately, especially for residential or non-residential areas equipped with together, shared objects and shared land. Height level classification includes:

- a. Low Rise Building (number of floors of buildings up to four floors);
- b. Medium Rise Buildings (number of floors of five-story buildings up to eight floors); and
- c. High Rise Buildings (number of floors of buildings more than eight floors).

The design quality of high rise housing can be assessed from a number of indicators, namely the first is the quality of residential units that have an assessment indicator that is the proportion of space, natural lighting, ventilation, scenery, noise control, and adaptive design. Then the next indicator is about the quality of the supporting room design, namely the public open space. Then the other indicators are the quality of the design of the public space, namely, the landscape, universal design, parking capacity, circulation and access.[4],[5],[6],[7]

After knowing the indicator of apartment design quality levels, we can find out where the architect's role can optimize influence of quality design in the design process of apartment buildings in Bekasi City.

A Portrait of High Rise Residential Buildings in the City of Bekasi

At present the design of apartments, especially in the city of Bekasi, is considered to have no variation, does not meet the needs of building users, and only prioritizes the benefits to be achieved from the developers. The result is designs that are not attractive to the market. This is the reason why buying an apartment is not interesting because the results of apartment designs cannot meet the needs of building users and also in addition to the investment profit factor that is still inferior to conventional housing.

International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: www.ijirset.com

Vol. 7, Issue 10, October 2018

The role of architects in shaping a better environmental quality for the community, seems to be ruled out by the perpetrators of design services. The commercial elements and advantages of the developer are the main basis of the design process. The result is that the spread of apartment designs that are all monotonous because it does not consider the local community behaviors and local society needs during the design process. Variation of apartment designs is only a distinction from the facade and the level of quality of the material used.

III. RESEARCH PROBLEMS

The overall research problems are:

1. What are the factors and variables of the role of the architect in improving the performance of the design process?
2. What are the criteria for the quality of the process of designing a residential building design?
3. What architect's role is still not optimal?
4. What needs to be done so that the role of the architect in improving the performance of the design process can be optimized?

IV. RESEARCH METHODE



Figure 1 : Research Procedure : Uses data analysis and research findings.

This study uses a research methodology that starts from the identification of research problems, research analysis, research findings, and recommendations that are expected to produce the necessary improvement. The research method used in this study is both qualitative and quantitative method using secondary and primary data analysis. The analysis will conclude research solution & recommendations for optimizing the architect's role in designing apartment buildings at Bekasi City.

V. RESEARCH RESPONDENTS

The results of this study will then contribute to the respondents of users of architectural consulting services products which are high rise residential buildings, the residents of high rise residential buildings in the city of Bekasi that are aged 17 years old, living in the building at least for 3 months.

VI. DISCUSSION

Factors and Variables of the Role of Architects in Improving Design Process Performance

From the study of literature that has been studied, it is concluded, in outline that the process of architectural design performance consists of:

1. Design Concept
2. Schematic Design
3. Design Development
4. Produce Workshop Drawings

International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: www.ijirset.com

Vol. 7, Issue 10, October 2018

While the stages that are not included in the architectural design process are periodical inspections stage. This is because the architect has acted as supervisor of the performance of the development stage and has not included activities related to the quality of design performance.

The Architect Code of Ethics and the Architect's Professional Code of Practice by the Indonesian Architect Institute (*Ikatan Arsitek Indonesia* or IAI) are one guideline that shows the obligations and responsibilities of IAI members to the general public including service users. The Architect Code of Ethics contains the responsibilities and rights and authority of the architect in the design process.

The role of the Architect mentioned in the Architect's code of ethics are:

- Provide expertise and capabilities in accordance with the standards of performance of certified architectural expertise.
- Meeting the Terms of Reference design that is determined by service users at each stage of work.
- Paying attention to, control, and apply the laws and regulations that apply to the implementation of construction.
- Perform the task of coordinating design work with experts, a group of experts, or other consultants.
- The role of visual communication design ideas.
- Design with sustainable principles.
- Design that accommodates local culture.

So if the two things are linked, we can find out the factors and variables of the role of the architect in improving the performance of the design process of the study of literature that has been studied concluded in the process of designing the concept stages of the architect's role design is to provide expertise and capabilities in accordance with the certified architectural performance standards the terms of the Terms of Reference, design that is determined by service users at each stage of work, and the role of visual communication of design ideas.

Criteria for the Performance Quality of the High Rise Residential Building Design Process

Within research problems to identify factors and variable roles of architects who are able to improve the quality of design performance in high-rise residential building design projects in Bekasi City, the factors of an architect's roles founded in the literature studies consists of, fulfillment of Terms of Reference, applying guided design on legislation and regulations concerning development, especially the city of Bekasi, coordination with other building experts in the design team, and the role of visual communication of design ideas.

It can be concluded that the quality of high rise residential building design can be assessed from several indicators, namely the variable quality of residential unit design consists of indicators of proportion of space, natural lighting, ventilation, scenery, noise, adaptive design. Then the variable quality of supporting space design is the quality of public open space. Then the quality variable of public space design consists of quality indicators of landscape design, universal design, parking, circulation and access.

The Architect's Roles that Needs to be Optimized

After distributing questionnaires in 3 projects of planning the existing building in the area of Bekasi city that has been selected, the next research results that will be analyzed are 3 variables that are considered to lack the value of the design quality.

So after the results of the questionnaire data are validated, it can be concluded that the quality of the design of high-rise residential buildings in Bekasi City which is considered the least according to the respondents is: the variation of communal space, communal interaction stimulating space, and the application of local cultural values into the design of high-rise residential buildings. While the quality of the design of high-rise residential buildings in the city of Bekasi which is considered the best according to respondents is, lighting, scenery, proportion of space and parking capacity.

With the results of the questionnaire in such a way, it can be concluded that the role of the architect who is still considered unfavorable is the fulfillment of the terms of the work reference framework in particular in applying the design of variations in communal space design. Then what is still considered lacking by respondents is the role of the architect in the application of the law to the design, especially in designing communal interaction spaces. And the last thing that is considered lacking by respondents is the role of the architect in coordinating design with other field experts, especially in the application of local cultural values in the design of high rise residential buildings.

International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: www.ijirset.com

Vol. 7, Issue 10, October 2018

Optimization the Role of Architects in Improving Design Process Performance

It is necessary to optimize the role of architects in improving the performance of the design process that must be supported and regulated by professional architect organizations and regional regulations governing the quality of the design of high rise residential buildings. Design guidelines and standards issued by professional organizations together with experts and policy makers, especially high rise residential buildings to create a good standard of quality of life in buildings.

Regional regulations governing urban development, especially building regulations regarding the standard needs and quality of high rise residential buildings. Guidelines do not only regulate the responsibility for the rights and obligations of the architect's profession itself, but arrange the profession's role so that it can improve the quality of building users which is the responsibility of the profession. Improved quality of life must be maintained in the design guideline so as to produce city life as a macro scale formed by the Architect profession. At present if it is conceived with other cities and countries in the world, urban development guidelines at the City of Bekasi are considered far from the level of sharpness in directing the final results of the design so that it is still not able to bring solutions to the city.

This must also be done so that the constructing developer can make a high rise residential building in accordance with the wishes and needs of the community as a target market. Regional design regulations must also accommodate local social and cultural needs in the design aspect of high rise residential buildings so that the apartments that are built are not only for investment activities, but indeed buildings that are able to support the needs of urban communities.

VII. CONCLUSION

From the research that has been done, it can be concluded that:

1. Factors and variables of the role of architects in improving design process performance from the study of literature, it is concluded that in the process of designing the concept, the architect's role is to provide expertise and capabilities in accordance with the performance standards of certified architectural expertise, meeting the Terms of Reference design goals determined by service users at each stage of work, and the role of visual communication of design ideas. Furthermore, in the process of planning, the role of the architect's role is to provide expertise and capabilities in accordance with the performance standards of certified architectural expertise, heed, master, and apply the laws and regulations that apply to the implementation of construction, and have the role of visual communication of design ideas. Then in the design development stage, the role of the architect is to provide expertise and capabilities in accordance with the performance standards of certified architectural expertise, carry out the task of coordinating the design work with experts, a group of experts, or other consultants, and play a role communicating visual design ideas, and the architect plays a role with the principle the sustainable and at last architect plays a role in designing that embodies local culture.
2. Criteria for the design quality of high rise residential buildings can be assessed from several indicators, namely from the variable quality of residential unit design consisting of indicators of proportion of space, natural lighting, ventilation, scenery, noise, adaptive design. Then the variable quality of supporting space design is the quality of public open space. Then the quality variable of public space design consists of quality indicators of landscape design, universal design, parking, circulation and access.
3. The design quality of high-rise residential buildings in Bekasi City which is considered the least according to respondents is the variation of communal space, communal interaction space, and the application of local cultural values into the design of high-rise residential buildings. While the quality of the design of high-rise residential buildings in the city of Bekasi which is considered the best according to respondents is, lighting, scenery, proportion of space and parking capacity.
4. It is necessary to optimize the role of architects in improving the performance of the design process that must be supported and regulated by professional architect organizations and regional regulations governing the quality of the design of high rise residential buildings. Guidelines issued by professional organizations together with experts and policy makers, especially high rise residential buildings to create a good standard of quality of life in buildings. Regional regulations governing city development, especially building regulations regarding the standard needs and quality of high-rise residential buildings.

International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: www.ijirset.com

Vol. 7, Issue 10, October 2018

VIII. SUGGESTION

Professional organizations together with expert architects specialized in high-rise residential buildings and policy makers, need to make guidelines to create a good standard of quality of life in buildings. Architects as professions who are responsible for designing cities on a micro scale, will arrange the quality of urban spaces that has a macro impact. Architects not only play a role in designing buildings in construction projects, but architects should also be involved in designing guidelines and standards for designing high rise residential buildings. Likewise with the regional regulations governing urban development, especially building regulations regarding the standard needs and quality of high rise residential buildings. This must also be done so that the constructing developer can make a high rise residential building in accordance with the wishes and needs of the community as a target market. Of course this will create the quality of Bekasi City's urban space to be better.

REFERENCES

1. Anyanwu, C.I. "The Role of Building Construction Project Team Members in Building Projects Delivery."IOSR Journal of Business and Management (IOSR-JBM). Volume 14, Issue PP 30-34. 2013
2. Dwiyanto, Agung. "ARSITEK PROFESIONAL DAN PERANNYA DALAM DUNIA KERJA". ENCLOSURE. Volume 7 No. 1. 2008.
3. Ikatan Arsitek Indonesia. "Pedoman Praktik Profesi Arsitek"IMAJI Books.2001.
4. O'Connor, Helena. "Architectural Services during Construction: Duties and Liability." Perkins + Will Research Journals.2012.
5. Sadri, Hossein. "Professional Ethics in Architecture and Responsibilities of Architects towards Humanity". Gazi University Graduate School of Natural and Applied Science.2012.
6. Zammit, Dr. Antoine. "The Role of the Architectural Profession in Delivering Responsible Design." Architect Council of Europe.2014.
7. Wahyudie, Prasetyo. "STUDI RUANG PUBLIK APARTEMEN BERBASIS BEHAVIOUR SETTING". The 2nd Conference on Innovation and Industrial Applications. 2016.