

Proposed business strategy for nomaden architect based on customer preference in choosing architectural design service

Laurentius Nicholas Rodriques¹, Dina Dellyana²

^{1,2}Institute Teknologi Bandung

¹laurentius_rodriques@sbm-itb.ac.id, ²dina.dellyana@sbm-itb.ac.id

Article Info

Article history:

Received Jan 12th, 2023

Revised Feb 18th, 2023

Accepted March 4th, 2023

Keyword:

Analytic Hierarchy Process (AHP); Customer preference; Architecture; Business strategy; Nomaden architect

ABSTRACT

With 37,500 clients for every architect, Indonesia has the largest market opportunity for architecture. Understanding these clients' preferences for architectural design services can help an architectural firm acquire a competitive edge and transform their company to be more client-focused. This study looks for the variables that affect customers' choices when selecting architectural design services. Researchers attempt to determine the importance of each of these criteria using the AHP (Analytical Hierarchy Process) technique after identifying the variables that affect these preferences. Researchers also tried to synthesize this research from three main targeted groups, namely groups of people who had previously used architectural design services, groups of people who had never used architectural design services, and groups of people who worked in architecture or related design fields. The outcomes of the AHP analysis are used as a company strategy after being evaluated. This business approach is applied to Nomaden Architect, a Jakarta, Indonesia-based provider of architectural design services. Researchers have ranked the key elements that influence customer preferences when selecting architectural services from this study, particularly for middle-class customers. In addition, researchers have offered business strategies for these architectural firms to compete successfully in their class.



© 2022 The Authors. Published by Accounting Study Program, Indonesian Cooperative Institute. This is an open access article under the CC BY NC license (<https://creativecommons.org/licenses/by/4.0/>)

INTRODUCTION

The positive economic development in Indonesia has influenced the development of the construction sector in recent years. One of the sub-sectors that feel the impact is the architectural design service business (Ginting et al., 2018). Massive infrastructure development and several strategic projects have opened up opportunities and high demand in this field of architecture compared to several previous periods (Chen et al., 2014). Even though during the covid-19 period this construction development had experienced a decline, in 2021 this number increased drastically again, this proves that the architectural service industry is also experiencing an increase again. According to Statista, the construction establishment or the number of projects in Indonesia has reached around 203.400 projects in 2021, which shows how potential the market is for the architectural industry (Abidin & Mahbubah, 2021). The construction sector is the fourth-largest contributor to Indonesia's GDP (Mudrikah, 2014), and investments in the construction sector in Indonesia are among the largest out of all construction investments in Asia (Susi, 2022). The industry has been growing as it is supported by the government's target to develop the archipelago's infrastructure to increase its connectivity (Purnomo, 2016).

In architectural design services specifically, there is no definite data regarding the number of developments in the architectural sector in Indonesia. Despite that, we can see it from a global and regional perspective. According to Grandviewresearch.com report, the global architectural services market was worth USD 344.9 billion in 2021 and is projected to expand at a CAGR of 7.4% between 2022 and 2030. This growth will reach around reaching USD 648.12 billion by the end of 2030. Architectural service demand is rising rapidly in developing nations. Rapid urbanization in China, India, Brazil, and Indonesia is increasing residential and commercial construction. Construction activities would raise demand for architectural services like construction and project management and urban planning, expanding the market (Ulinata, 2022). Asia-Pacific dominated the market in 2021, accounting for about 36.0% of total sales. It is anticipated that the segment will increase steadily over the projection

period. Rapid urbanization, a growing population, and an increase in residential and industrial construction projects in this region are responsible for the expansion.

There are several major players in the architectural service sector. For instance, AECOM, Aedas, DP Architects Pte Ltd, Foster + Partners, Gensler, HKS Inc., PCL Constructors Inc., HDR, HOK, and IBI Group. Most of those companies are located in America and Europe. In Asia, the leading companies come from Singapore and Japan, while Indonesia still doesn't have a global top-tier architecture firm.

Indonesia as a developing country has enormous potential in the architectural service industry (Nugroho, 2019). According to architecturalrecord.com, the ratio between the number of architects and the population in Indonesia is very large. By 2050, it is estimated that every single architect in Indonesia has a potential market of 37,500 customers. This is very different from Italy which has the biggest number of architects, their potential market per architect is only 414 people. This number is obtained from the comparison between the increase in the number of architects per year with the increase in population. This makes Indonesian architects have a very large and diverse opportunity in the future compared to other countries.

Although the number of potential markets and the development of the construction world in Indonesia look very promising (Tanesia et al., 2015), this does not mean that running an architecture business in Indonesia will be easy. The intense competition between architectural firms concentrated in big cities like Jakarta has made it a very difficult situation for new firms to penetrate the market. Not to mention the normal price and quality standards of architect services are still very unfamiliar in the community. To compete with other firms, an architectural firm must be able to understand the market as well as possible (Sudarsono, 2020). One way to understand market demand is through years of experience or another way is to research the trends and preferences of the market itself. By understanding the market, an architectural firm can provide the best services and also gain the trust of potential customers themselves (Hartono, 2018).

Their main channels to distribute their portfolio and also do their advertisement are Instagram and their own website, nomadenarsitek.com. Each month they use Instagram ads to boost their awareness on social media and grow their account to reach more than 20.000 - 30.000 users monthly. Unfortunately, the result of this action is not satisfying, even though they grew their followers on Instagram until it reached 5100 followers in less than a year, they felt that the amount of contract they made was below their expectations.

In one year they have sent more than 30 offerings letter, but they only made 7 contracts. Most of their customers didn't give feedback or notice why they ended up rejecting the offering. In several cases they also reject customers because it's not fit with their design specialization, the budget for the project is too low, or the customer misunderstands the service they provided. They felt that they don't have proper knowledge of what the market really wanted. They also fear that the business environment which is very competitive could push them back if they don't have enough understanding of the market need.

Nomaden architect is considered new to the market so they begin to notice several problems which they have to face (Trisno et al., 2021). One of them is the price war and the market knowledge. The price of architectural service in Jakarta starts from Rp 200.000 to Rp 2.100.000 / m², a range which seems unreasonable and has a very big gap. This price war comes from new firms who want to survive and also old firms who monopolize the big clients.

The results of Kaenzig et al. (2013) show that customers are prepared to pay a considerable price premium to switch from the current standard German power mix to a more environmentally friendly power mix, and we analyze the consequences for marketing strategies and energy policy. Customer perception of architectural design services in Indonesia is also questionable. Because of the architectural business environment which usually hides their price and the various different projects which also have different price ranges (Jaelani, 2018), most of the new customers never really know the actual or standard price for the design service. Even worse, a lot of customers doesn't really know the actual service scope of these architectural firms. The competitive environment in the architectural service business creates price wars and also unfair competition without regard to real customer needs so sometimes it makes customers confused to determine the best design service. To win the competition in the market, understanding customer preferences can be a competitive advantage that makes this

service business more sustainable, becomes the customer's first choice, and also develops the business in the future.

RESEARCH METHODS

In this study, the author uses both quantitative and qualitative research methods. Combining the two methods is expected to provide more comprehensive and mutually supportive results. The steps taken by the author are also interconnected and supportive where the author conducts interviews, surveys and analyses several times to the informants to find a more precise picture. The results of the interviews were also analyzed using quantitative methods to make data that is more measurable and can be compared with each other.

At the initial stage, the author begins by conducting interviews with customers who have used architectural design services, people, who have never used these services and the architect himself. This is done to find a more comprehensive picture of various aspects. The views of each resource person are considered to influence the selection of prospective customers who are the targets of the architect Nomaden later. In addition, the three views can eliminate bias factors that previously occurred such as previous customer experience, architect experience, or the perception of people who have never used these services.

After finding the factors that may determine the choice of architectural services, the author tries to measure these factors using the AHP method. It aims to find out how much influence each factor has on customer decisions. With this method, the author can conclude several main factors which the author can then explore either through interviews or questionnaires. This can help the author provide an ideal picture of the views of these sources on each factor and can also provide the best solution for Nomaden architects in determining their business model later. This research can eventually become knowledge for the company to form a business model that is most suitable for market conditions.

Qualitative methods are used to find problems and factors that influence customers in choosing design services and are also used to deepen the issues that lie in each of these factors (Bidluril, 2019). This method is carried out by means of direct or online interviews with each resource person. While the quantitative method is used to measure the influence of each factor and the customer's tendency to the decision to use architectural design services. In the early stages, researchers conducted interviews with several sources to find views and problems in choosing architectural design services in general.

RESULTS AND DISCUSSION

The author was able to acquire interview data and AHP (Analytical Hierarchy Process) from 30 targeted respondents, with three resource groups represented by 10 individuals each. The group consists of individuals who have utilized the services of an architect, individuals who have never utilized the services of an architect, and a group of professional architects. The author performed AHP analysis on thirty data points in order to identify the characteristics that best represent all stakeholder groups and customers, who have diverse perspectives and experiences. This comprehensive or macro analysis seeks to eliminate the probability of biased replies from experiences between groups.

Qualitative Analysis

This interview was conducted in 2 stages, namely before taking the AHP questionnaire and when collecting AHP data. The author conducted discussions with resource persons using questions that were in the research method. The purpose of the first interview was to find out the factors that influence the choice of architectural design services while the second interview was to discuss and deepen the findings from the AHP questionnaire. The following are the results of interviews conducted by the author which are described descriptively. In this elaboration the author provides an example of the results of the interview which is described in more detail and is considered to represent the views of the group.

Group of customers who have used architectural design services before

One of the interviewees in the category of having used architectural design services was Mr. Taufan. He is a manager in a manufacturing company. He used the architect's own Nomaden design services to be precise in early 2022. He is the head of a family of two children living in the Pesanggrahan area, South Jakarta. His goal of hiring an architect design service was to build his first house. He had

never before had experience building houses so this was his first experience. However, some of his friends have used architectural design services.

He also said that he actually has a brother who is also an architect, but he chose to use outside design services that were more in line with his tastes. He said that apart from acquaintances and recommendations, the main thing he saw was the design quality of the portfolio, whether in a particular magazine or website.

Taufan found Nomaden architectural design services from the Instagram social media platform. Where before, he had made comparisons to several other accounts. From the interviews conducted, it was found that one of the factors that he prioritized the most when hiring architectural design services was price. He admitted that he was very confused about finding an architect who had the price he expected because of the different ranges and methods of pricing for design services. According to him, most architects determine the price for design services per square meter, but they cannot properly explain the basis for this price and why the figures vary so much from one firm to another. Finally, when he hired the design services of Nomaden architects, he immediately shot the price on a lump sum basis, where he felt that paying design services for a house of less than 200 m² should be around 50 million rupiah.



Figure 1. Design Result for Mr. Taufan by Nomaden Architect

He also explained that the quality of the design, especially the beauty of the portfolio, was the main point that he highlighted. He felt that at least the architect had made a design for the type of house he was expecting. From the interview he also explained that he has a big concern for the durability of a building where he hopes to get this from the architect apart from the design which is just beautiful to look at.

According to him, it is very important for architects to have many portfolios that can be seen even though they have not been built. He uses this to measure the suitability of his design tastes with architects and his perception of the values he should get from an architect when using his services. Apart from that, Mr. Taufan also said that he was looking for an 'unusual' house. create a certain uniqueness in designing. They also explained why in the end they hired a Nomaden architect. They felt that because Nomaden architects were new, of course the architects involved would definitely be more willing and able to carry out intense supervision compared to architects who already had many projects. Besides Pak Taufan, the author also interviewed several sources with the following questions. The answers to each question will be summarized in a paragraph to explain the conclusions of the interview results.

Group of customers who never use architectural design services before

The author also tries to interview potential customers who have never used architectural design services before. The author's goal in conducting this interview is to see the description or views of ordinary people about this service in real terms so that problems can be found that prevent people from using the services of architects or are interested in using them. One of the interviewees was a new married couple namely Mr. Andreas and Mrs. Regina. The two couples are newly married couples and have a son. Currently, they have no plans to build a house, but they are sure that when their children are old enough, they will move in and hire an architect to design their dream home.

The author finds some interesting things when interviewing people who have never used architectural design services. For example, like their perception of architectural design services. They feel the need to find an architect who can follow their tastes and desires but on the other hand offers a unique design portfolio. Then, they also tend not to know about the cost of architectural design services

and prefer to ask prices based on the type of house. For example, they had a discussion about how much it would cost to design a two-story house with a land area of 72 m². They think that the architect already has a rough benchmark price because the types of land in Indonesia tend to have the same areas and the types of houses that most likely resemble each other.

Unlike Mr. Taufan's previous view of looking for architects from websites, social media and magazines, this couple tends to look only for their closest friends or relations they know. They feel that because they don't understand at all and have never hired an architect design service, they really need someone who can be trusted and responsible. They feel it will be much easier to trust people they know than publications from magazines or design websites. They also believe that the people closest to them will definitely be able to provide pleasant customer service because they are friends or acquaintances themselves. When hiring an architect from a website or magazine, they are afraid they won't fit the character or how the architect's services are carried out. Apart from that, they also highlight that what they are looking for from hiring architect design services is aesthetics and functionality. They hope to have a house that has a better aesthetic value than what they have experienced now but still functions properly, especially for their children who have just started growing up.

Group of architects or other design service firm

In this study, the author tries to see the views of architectural firms and other architects in their experience of receiving and being chosen by customers. The main objective of this interview is to see the views of architect service practitioners on the customer's decisions and how the process occurred until they were finally chosen by the customer. The author tries to interview several other architects, one of which becomes the focus of the author is Metaforms Studio which is a studio with a similar profile to Nomaden Architects. Metaform is an architectural firm owned by two partners namely Gani Wiratama and Yanly. This firm was founded in 2020 and has handled various types of projects, both residential and public buildings. Their main office is in Jakarta, but they also have a lot of projects spread all over the place.

From interviews with them, the authors found several interesting views regarding the factors that influence customers in choosing architectural design services. One of them is about the relationship they have. According to sources, 70% of their clients are the relations themselves and very few clients are obtained from social media or websites. On average, their clients will start by asking their price per square meter, although normally they will always explain in advance the price according to the standards given by IAI (Indonesian Architects Association), namely using a percentage of the value of the building.

In designing their buildings, there are many things that customers always ask and are the biggest concern. On average, their customers prioritize the value of functionality where they are asked to design a land as effectively and efficiently as possible. Aesthetic value and durability are of course the main concerns too, but in their projects many customers are more concerned with maximizing land because they don't want to lose, especially in public building projects for example.

One of the things they say is the most difficult when handling new customers is when these customers offer prices on a large scale because they don't have many projects in their portfolio. According to them, increasing the number of portfolios is very important in convincing clients because it shows good standards and credibility. On the one hand, they also tell that sometimes they dare to get much less profit than they should in order to get a larger number of portfolios.

Quantitative Data Analysis

From the Questionnaire that was distributed there were 47 respondents who gave answers. However, to balance the proportions between each stakeholder group, the authors chose 30 respondents, each of 10 sources representing different groups, namely people who have used the services of architects, never used them, and the architects themselves. Following are the results of data collection from the 30 informants:

AHP Matrix

After the respondents filled out the general questionnaire, the writer asked the respondents to fill out the AHP questionnaire. From the results of initial interviews with 30 informants, the authors formed

an AHP matrix chart to determine the purpose of the AHP questionnaire and the criteria and sub-criteria in it.

AHP Result for Main Criteria

As a first step, the researcher first analyzed the results of the AHP process from the main criteria to find which criteria were the customer's main concern when choosing architectural design services. The following is an example of the AHP questionnaire used by the author to find the main criteria of the 6 existing criteria, this questionnaire was given to all 30 respondents. From the results of the AHP analysis, the authors found processing results with an inconsistency value of 0.6995 or in a percentage of 6.9 percent. Inconsistency value ≤ 10 percent, it can be said that the research is consistent. That is, if a criterion is indeed a criterion that is the top priority of the respondent using the services of an architect, then that criterion will still be a priority even though it is compared to other criteria. With the consistency value that has been obtained, the next step is to find out the ranking of the criteria that are highly prioritized by respondents in using the services of architects, down to the least prioritized criteria.

Figure 2 shows the results of data processing using Super Decision. It can be concluded that the top priority of respondents choosing architectural services is (with normalized values) "Design Quality" (45.3 Percent), followed by "Project Experience" (26.4 Percent). Meanwhile, the criterion that few respondents chose when considering the use of architectural services was Customer Perception (4.1 percent).

By using super decision software, the following results are obtained:

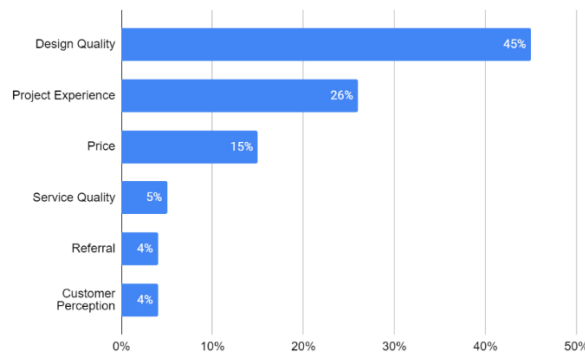


Figure 2. AHP Result for Main Criteria Analyze Using Super Decision Software

Looking at this data, it can be concluded that the 3 factors that most influence the choice of architectural design services are design quality, project experience, and price. When conducting the AHP questionnaire, the researcher accompanied the respondents so that there was no mis-definition of each of these factors. Design Quality as the main factor in choosing architectural design services can be said to be in accordance with the hypothesis of most people because this business is engaged in design services. However, this factor cannot be seen for granted without a more in-depth analysis. For example, from the results of interviews, not all customers ultimately decide to use these design services just because of the quality factor. Two other main factors can be said to be decision boosters such as reasonable prices and credibility gained from previous project experience.

AHP Result for Design Quality Sub-Criteria

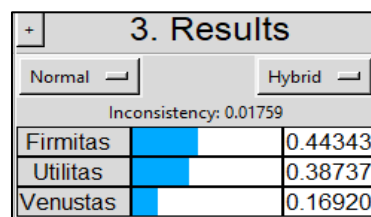


Figure 3. AHP Result for Design Quality Sub-Criteria

The top priority for respondents' choices was Firmity or Durability (44.3 %), followed by Utility or Functionality (38.8 %), and finally Venustas or Aesthetic (16.9%). This shows that the main customer preference seen when determining whether a design is attractive or not is the durability factor. Durability itself can be assumed as sustainability at the present time, namely conditions where the design of a building is sustainable and also low maintenance of energy functions and their needs.

What's interesting is that usually, architects tend to focus on the beauty or aesthetics of a building because it sells the most in the end. However, when the quality of the design is measured and compared with functionality and durability, it turns out that most people actually think about choosing durability. This data is also strengthened by the results of interviews which state that many customers are concerned with long-term building durability problems, maintenance problems and risk problems, or the age of the building.

AHP Result for Project Experience Sub-Criteria

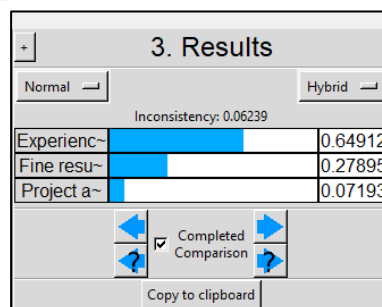


Figure 4. AHP Result for Project Experience Sub-Criteria

In the results of the AHP analysis on the Project experience sub-criteria, the sub-criteria that is considered the most important by the customer is Experience in the same project type and scale (64.9%), followed by Fine Result in previous project (27.8%) and finally Project Amounts (7%). From this analysis it can be concluded that when a customer is looking for an experienced architect what they will see first is the architect's experience in designing buildings of the same scale and type. Given the many types of building typologies and different functions, this is very reasonable. For example, when you want to design a hospital or airport, of course a client will choose an architect who has similar experience because it can reduce the risk of design errors.

AHP Result for Price Sub-Criteria

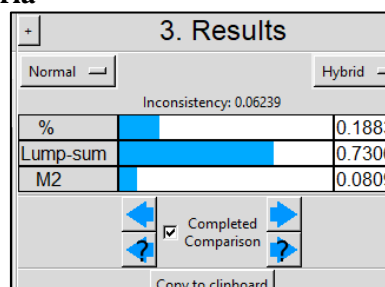


Figure 5. AHP Result for Price Sub-Criteria

In the AHP analysis of the price factor sub-criteria, the authors found that customer preference for the main purchase price was by Lump-sum or Wholesale method (73%), followed by the proportion of building value (18.8%) and finally by the calculation method per square meter (8%). This reveals an interesting result considering the vast difference between the use of the lump-sum method and other methods. In fact, in the field today, most architects use the per square meter method, but in fact from this survey it is evident that the lump sum method is the method that the average customer feels more comfortable using.

AHP Result for Service Quality Sub-Criteria

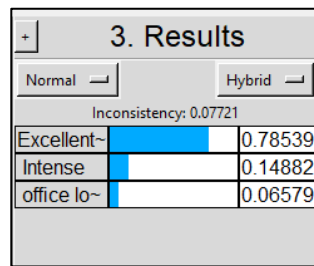


Figure 6. AHP Result for Service Quality Sub-Criteria

The AHP results for the service quality sub-criteria show that the factors most in demand by customers are excellent customer service (78.5%), then intense supervision (14.8%) and office location (6%). It seems that customer service is the factor most prioritized by customers, this is inseparable from the type of business the architect firm itself is in the service sector.

AHP Result for Referral Sub-Criteria

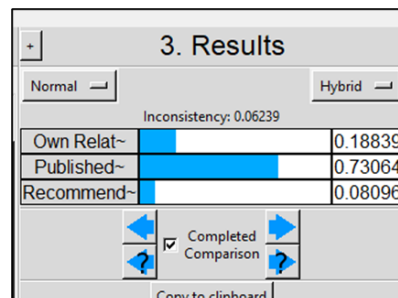


Figure 7. AHP Result for Referral Sub-Criteria

For the referral sub criteria, it seems that on average people refer more to references provided by certain magazines or websites. This can be seen from the value of this factor which reaches 73%, while own relations (18%) occupy the second and last position, namely recommendations from relatives (8%).

AHP Result for Customer Perception Sub-Criteria

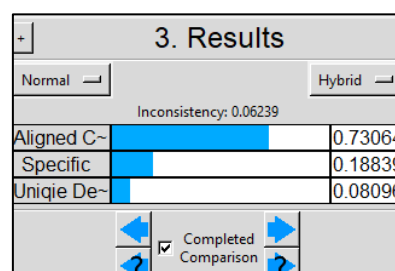


Figure 8. AHP Result for Customer Perception Sub-Criteria

Regarding customer perception, which is the lowest criterion in choosing architectural design services, respondents tend to choose design which aligned with customer perception (73%), followed by Specific design specialization (18%) and unique design style (8%). It seems that when looking at the portfolio, customers will look for designs that they think best suit their tastes compared to architects who specialize in design style or who try to look as unique as possible.

Solution and Proposed Implementation Plan

Seeing from the results of AHP which has shown the main factors that are customer preferences. The author will try to recommend a number of things that can be done from each factor and also the

priority steps that Nomaden Architects should do later when they want to implement customer preference into their service business line.

Solution for Price Preference

From the results of the initial interview, the author found that there are three sub-criteria for the cost of architectural design services which are also related to how the design services are measured. The three sub-criteria are calculated through the calculation of the area per m2 of the building, through the building value percentage and finally the wholesale or lump sum.

The price factor is an important factor for a customer to determine his preferences in choosing architectural design services. Based on the results of the AHP analysis, the most ideal price determination is to use the lump sum or wholesale method in working on a project. However, to determine the lump sum value of a design service, Nomaden architects must also be able to see the real value that is appropriate for the building. Basically determining a wholesale service price also means evaluating the design service itself for a project.

Among the three methods, the most measurable method is actually the percent method. This method is the most certain method because it is determined by the Indonesian Architects Association or IAI. While the value most widely used by architects in Indonesia is the method of calculating the price of a square meter of building area. Then, there is the lump sum or wholesale method which is usually used by contractor services or only a few architects. From the results of the following interviews are the advantages and disadvantages of these design service pricing methods:

Table 1. Comparison of architecture pricing factor based on interview

	Building Percentage	Value	Price per square meter of building area	Lump sum or wholesale
Advantages	It has been recognized, standards and guide by (Indonesian Architects Association)	has been has is a IAI	It is practical and easy for architects to use because it looks at the land area and space requirements that must be designed	Easier for customers to understand and seem cheaper
Disadvantage	It can only be determined after there is a calculation of the RAB for a building, where the architect must work first without guarantees or certainty of costs that can be given to the client	only be determined after there is a calculation of the RAB for a building, where the architect must work first without guarantees or certainty of costs that can be given to the client	It can only be determined after there is a calculation of the RAB for a building, where the architect must work first without guarantees or certainty of costs that can be given to the client	If it is not determined properly and correctly, it can create big losses for architectural design service providers

To determine the best lump sum price, the author advises Nomaden architects to start first by dividing several categories to determine the wholesale price. For example, Nomaden architects can divide into a wide range of buildings and building types. After determining the category for lump sum Nomaden architects can use other methods to test to see if the price given is the normal price that is best for both parties.

The author tries to find the most common price value first through interviews and questionnaires to 30 respondents that the author has determined beforehand. Due to the interviews it was found that the most frequently used method was the method per square meter of building, the authors tried to find out the most ideal value per square meter according to these respondents. The following is the most ideal price per square meter according to respondents:

Table 2. Proposed Lump-sum strategy for Nomaden Architect

Land Area	Residential Building	Public Building
1 – 100 m2	Rp 40.000.000	Rp 36.000.000
100 – 200 m2	Rp 76.000.000	Rp 68.000.000
200 – 300 m2	Rp 108.000.000	Rp 97.000.000
300 – 400 m2	Rp 136.000.000	Rp 122.000.000
400 – 500 m2	Rp 160.000.000	Rp 144.000.000
Above 500 m2	Discussed with the architect	

The price is determined following the benchmark price per square meter which has been adjusted to the area and needs. In this lump sum price benchmark, the larger the land area, the price given, the cheaper the slats are calculated per square meter. The author recommends this price taking into account the current price given by Nomaden architects and the market price preferred by other customers. With this format, Nomaden architects can more easily provide an overview of prices to customers and get an appropriate profit that is not less than the usual price.

The author recommends Nomaden architects to give a 5% discount for each category increase and give a 10% discount for the public building category. Discounts in the public building category are based on the possibility that the type of client who will hire these services is actually other business people such as cafe, restaurant or office owners. Therefore, it is better to cut this price to establish good B2B relationships to gain loyalty from these companies. Meanwhile, a 5% price cut is given to the area category when it is wider to show a good Economic of Scale for customers as well as other business people.

In the recommendation to provide lump sum prices, the authors recommend Nomaden to remain open to negotiations and input from clients to find the best price. Then the next step is that Nomaden architects should make a fee card with a lump sum or wholesale price which can later be implemented for customers in the future. With the existence of the fee card, it is hoped that transactions that will occur will be faster, more precise and smoother.

Solution for Referral Preference

Based on the results of the AHP analysis, the authors found that the most important referral factor is when a project or architectural design service is recommended by a magazine or website. This is most likely because publications such as websites or magazines create a high impression of credibility of an architectural design firm. Apart from that, the existence of these publications creates a word-of-mouth marketing phenomenon among people who have seen these publications.

Besides that, the writer also found an interesting thing when conducting a survey of 30 sources that the author chose. One of them is regarding the number of architectural firms that the informants know or become their main reference when choosing an architect. The author finds that around 70% of people do not know more than 5 architectural firms, and 45% only know 1-2 architects. Based on the data above, the writer can conclude that the average person does not have many options when choosing architectural design services. This means that if publications or referrals from a magazine and magazines are known by a larger mass, then Nomaden Architects can find clients more easily and customers make Nomaden their main goal in hiring architectural design services.

The author recommends Nomaden architects to publish their built works on architectural websites or magazines. One of the websites that the author found was Archify.com, where on that website there is a collection of works by architects in Indonesia which are likely to be a reference for people looking at or looking for architects. In addition, the author also advises Nomaden architects to improve their digital marketing efforts through SEO (Search Engine Optimization) so that their websites reach people on a large scale.

Solution for Design Quality Preference

Maintaining quality in service business is not an easy thing. In addition to maintaining existing quality standards, businesses in the service sector must also find ways to improve this quality. Especially in the architectural services business, where each project is very dynamic and has different needs. One way to improve this quality is to measure progress and find the factors that define the quality itself. Based on the results of the interviews and also the literature review, there are three main things to

measure the quality of the design itself. These three things are Aesthetics, Durability, and Functionality. Based on the results of the AHP analysis of 30 respondents who are a combination of lay people and practicing architects, the highest value in design quality lies in the durability of a building.

The durability of the building can be interpreted as sustainability in the present. Sustainable buildings seem to be the main attraction for most people. This is quite interesting because basically the mindset of an architect is a designer and most people focus more on the aesthetic values that a designer can produce. However, when the aesthetic factor is juxtaposed with durability, it seems that people prefer this factor. When discussing with the informants, the authors found that durability is closely related to sustainability. Where a durable building seems to be needed and is an issue in today's society. Especially with the increasingly high prices of property and building maintenance nowadays, many customers don't want to be bothered by mere beauty in the future.

The author recommends Nomaden Architect to collaborate with suppliers who have the same passion and vision. Nomaden architects as designers and also those who determine building specs can try to embrace suppliers based on material sustainability. In addition, all Nomaden designs should use these main aspects as a highlight competitive advantage of their design services. For example, nomaden architects, for example, avoid using materials that require a lot of maintenance, such as marble, plywood, and wallpaper. By not implementing materials that require a lot of maintenance, Nomaden architects can destroy themselves as a firm that pays attention to the sustainability or durability of a building. Apart from that, nomaden architects can also look for certifications that highlight themselves as sustainable architects. As a recommendation, the author recommends Nomaden architect to join the Green Building Council Indonesia (GBCI). This institution is institution that has the right to provide green building certification in Indonesia, especially buildings that embrace the concept of sustainability.



Figure 9. GBCI (Green Building Council Indonesia) As an Organization Which Could Give Certification for Green Design

The greenship awarded by GBCI consists of six categories, namely water conservation, land use efficiency, energy efficiency and conservation, material sources and cycles, air quality and indoor air comfort and building environment management. All categories have their respective benchmarks in the assessment. One of the buildings that received the Greenship certificate is Menara BCA which can save 30% of their energy consumption. A property that has a greenship certificate of course has a higher value and is expensive, so it becomes a special attraction for stakeholders who want to design a building with that concept. By joining Nomaden in GBCI and implementing Green Building standards, Nomaden can make this a competitive advantage.

Solution for Project Experience Preference

Based on the results of the AHP obtained, the most important sub factor when the customer sees the architect's experience is the similarity of the scale and type of project that existed before. This means that although the number of projects and the age of the architect are also important, similarities or experience in making similar buildings make the customer more confident when hiring the architect. Judging from the many typologies of building functions, actually the landscape and architect market itself is very large. In addition, not all architects can and are trusted to design a building with certain specific functions. For example, to design a hospital or airport, an architect must have experience and a different understanding from architects who are used to designing houses and vice versa.

This can be a drawback for Nomaden architects which is a new firm. The fewer types of building functions they have designed, the more specialized they will be in the future. If later they get more specific, this is not entirely bad, meaning they will have a certain niche market. But what makes it difficult is if the niche market they enter already has many competitors or big players. As a new firm, the author recommends Nomaden architects to publish their work as much as possible to increase the chances of new customers seeing their designs. Second, the author also recommends Nomaden

Architect to take part in many open competitions. In this open competition, Nomaden architects can find opportunities and portfolios in designing something they have never done before. The purpose of participating in the competition should not be seen solely to win but also to collect a portfolio even though it is not built.

One of the contests that Nomaden participated in was the design competition for the Great Mosque of Central Java, which won 2nd place. This Nomaden Portfolio can be used in the future to see their designs in designing houses of worship. Suggestions from the author, Nomaden should also be active in showing diverse portfolios like this. One of the contests that Nomaden participated in was the design competition for the Great Mosque of Central Java, which won 2nd place. This Nomaden Portfolio can be used in the future to see their designs in designing houses of worship. Suggestions from the author, Nomaden should also be active in showing diverse portfolios like this.



Figure 10. Sample of Nomaden Architect Portofolio of Public Building

Solution for Service Quality Preference

In the service quality section, the most chosen factor is excellent customer service or how the architect responds and answers the problems experienced by the client. In a project, it is natural to always find problems in the field that are likely to occur in the middle of the road. As business people in the service sector, Nomaden architects must be prepared to face all of this and provide the best possible service to customers. After conducting interviews, the author feels that the communication between an architect and his client is very important because the duration of a project can last in a matter of years, this means that within a year the architect must be able to maintain a good relationship with the client.

Based on the survey conducted by the authors, respondents directed that architects should be hospitable or friendly. This is based on the fact that for them an architect must be able to act as a friend who always supports the customer in building their designs. From the interviews conducted by the author, it seems that the customer did not expect to find an architect who was too formal or professional for fear of creating an unpleasant distance for a long period of time.

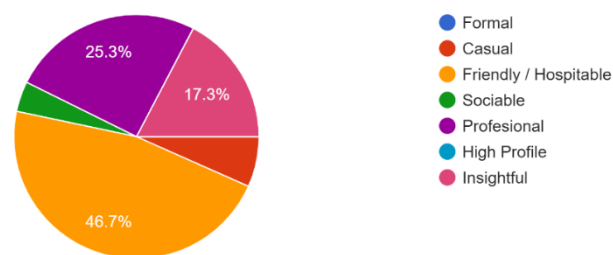


Figure 11. Survey on architect personality preferred by customers

Referring to these results, the authors recommend Nomaden architect to standardize customer service or SOP (Standard Operating Procedure). To improve the quality of Nomaden's services, architects must ensure that architects who handle a project can also properly represent Nomaden when dealing with customers. To improve services, Nomaden architects can also create merchandise or standardize documents provided to customers. This is to show a professional side but also care about customer satisfaction.



Figure 12. Sample of merchandise designed for customer impression

Solution for Customer Perception Preference

The author finds that customers prefer architects who have tastes that match those customers. Sometimes as an architect there is an assumption that the resulting design must always be unique or specialize in certain styles such as classic or modern designs. This does not seem to be something that the customer pays attention to, even from the survey results it was found that 60% of people think that architects should not specialize in their design style. The author feels that it is better for Nomaden architect to always focus on customers to provide the best service. If they become a customer-oriented firm, they can also provide the excellent service that is expected of all their customers. This can also be a competitive advantage for Nomaden architects.

Implementation Plan

From the possible solutions for Nomaden architects, the author has summarized them in an implementation plan that can be implemented in the next one to two years.

CONCLUSION

In general, from this research the authors found that there were several factors that influenced customer preferences in choosing architectural design services. Some of these factors also have sub-factors that show customer tendencies or preferences in choosing architectural design services. When seen there are several relationships between the factors found in the qualitative analysis with the preference factor itself in the quantitative analysis. The author also found several differences between the customer's preferences and the assumption that Nomaden architects run their business as a design services firm. The following is the author's conclusion in answering the research questions that form the basis of this research, there are 6 main criteria that the authors find in customer preferences when choosing architectural design services. In each of these criteria there are 3 sub-factors that are of particular concern to customers in choosing architectural design services. The six main factors are Design Quality, Project Experience, Price, Service Quality, Referrals and Customer Perception. And the author managed to sort the factors that most become customer preferences in choosing architectural design services. In addition, the authors have also sorted the results of the AHP analysis of the subfactors of each criterion. As a brief description, the following are the results of the AHP analysis of these criteria and sub-criteria.

REFERENCES

- Abidin, A. Z., & Mahbubah, N. A. (2021). Pemetaan risiko pekerja konstruksi berbasis metode job safety analysis di PT BBB. *Jurnal Serambi Engineering*, 6(3).
- Bidluril, M. I. (2019). *Analisis faktor-faktor yang mempengaruhi keputusan pembelian tas kain hajat (Studi kasus pada UD. Aura Mulia Mojokerto)*. Universitas Islam Majapahit Mojokerto.
- Chen, S., Xu, H., Liu, D., Hu, B., & Wang, H. (2014). A vision of IoT: Applications, challenges, and opportunities with china perspective. *IEEE Internet of Things Journal*, 1(4), 349–359.
- Ginting, A. M., Rivani, E., Saragih, J. P., & Wuryandani, D. (2018). *Strategi pengembangan ekonomi kreatif di Indonesia*. Yayasan Pustaka Obor Indonesia.

- Hartono, G. R. (2018). Analisis dan evaluasi model bisnis pada UD. Surya Agung Dengan Pendekatan Business Model Canvas. *Agora*, 6(1).
- Jaelani, A. (2018). *Sejarah pemikiran ekonomi Islam: Kontribusi sarjana muslim dalam pemikiran dan analisis ekonomi*. CV. Aksarasatu, Cirebon. pp. 1-147.
- Kaenzig, J., Heinzle, S. L., & Wüstenhagen, R. (2013). Whatever the customer wants, the customer gets? Exploring the gap between consumer preferences and default electricity products in Germany. *Energy Policy*, 53, 311–322.
- Mudrikah, A. (2014). Kontribusi sektor pariwisata terhadap GDP Indonesia tahun 2004-2009. *Economics Development Analysis Journal*, 3(2).
- Nugroho, M. T. (2019). *Industri kreatif berbasis budaya peluang dan tantangan di era industry 4.0*.
- Purnomo, R. A. (2016). *Ekonomi Kreatif Pilar Pembangunan Indonesia*. Ziyad Visi Media.
- Sudarsono, H. (2020). *Manajemen Pemasaran*. Pustaka Abadi.
- Susi, S. (2022). *Pengaruh Current Ratio, Debt Equity Ratio, Return On Asset Dan Total Asset Turn Over Terhadap Harga Saham Pada Sektor Sub Sektor Konstruksi Dan Bangunan Yang Terdaftar Di Bursa Efek Indonesia Periode 2016-2020*. Universita Jambi.
- Tanesia, R. K., Suryani, D., Yudha, F. M., & Ramba, J. (2015). Kajian segmentasi pasar dan strategi pemasaran usaha jasa konstruksi di negara-negara Asean (Studi kasus: Indonesia vs Filipina). *Jurnal Teknik Sipil*, 13(3), 216–227.
- Trisno, R., Lianto, F., & Choandi, M. (2021). Tipologi tenda sebagai studi arsitektur portabel. *Jurnal Muara Sains, Teknologi, Kedokteran Dan Ilmu Kesehatan*, 5(2), 543–562.
- Ulinata, U. (2022). *Buku jara manajemen proyek*. UKI Press.