

Value Management Perception by Practitioners in Real Estate Development Process

Yeptadian Sari¹

¹Postgraduate Student

Department of Architecture

Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Kampus ITS Keputih, Sukolilo,
Surabaya 60111, Indonesia

Purwanita Setijanti²

²Lecturer

Department of Architecture

Institut Teknologi Sepuluh Nopember,
Surabaya, Indonesia

Abstract— The application of a method in real estate development process is needed in order to ensure the project runs smoothly. There are methods that can increase the value of the project and even discard the unnecessary cost of the project called value management. Many practitioners of real estate development in Surabaya claim that they always apply value management method. However, based on empirical data, it is known that not much research of value management in Surabaya.

The purpose of this paper is to determine how the application of value management by practitioners of real estate development in Surabaya and how their perspective is about value management. Statistic descriptive analysis is used to achieve the research objectives. Results of research in this paper are the level of application of practitioners in Surabaya on value management and their perception of value management based on their position in their real estate development process.

Keywords— Perception, Practitioners, Real Estate Development, Value Management

I. INTRODUCTION

Surabaya is selected as one of five potential areas to invest in Asia based on an assessment of global property portal. The application of a method in real estate development process is needed in order to ensure the project runs smoothly. [1] said that there is a method that can increase the value of the project and even discard the unnecessary cost of the project called value management (VM). Real estate development process has so many stages; there are the briefing stage, the design stage, the contract stage, the construction stage, the stage of reciprocity and the stage of completion [2]. While [3] in his study mention that the development phase of the project is regarded as a constituent entire project life cycle, namely the feasibility and planning stage, detailed design stage, procurement stage, construction stage, then operation and maintenance stage. But [2] also states that the project development stage that is good for the use of VM approach starts from briefing stage to the construction stage. According to [4] design stage has three phases, namely the conceptual design phase, the detail design phase and the last is design production phase. Thus, real estate development stages that examined in this study consists of project briefing stage, the feasibility study stage, conceptual design stage, detailed design stage, design production stage, contract stage, and construction stage.

Method of analysis that is used in this study is statistic descriptive analysis. The sample taking and respondent determination are applied by a purposive sampling followed by snowball sampling. Data collection techniques use a survey by distributing the questionnaires, there are 35 samples namely real estate development practitioners who are being or has served as manager or above. The range of work to examine the VM is quite extensive, it could be from the engineers to the director, but the range of perception of engineers and directors are so far, so as to minimize the perception range, the researchers chose the manager to managing director as the respondent to represent the population. It is also due to the manager and above who know about all stages of the real estate development process.

The data that is used in this study consisted of primary data. Primary data is data obtained directly from the respondent, through questionnaires. The collection of primary data obtained directly from the first informant [5]. Distribution of questionnaires carried out gradually and one by one within a specific deadline to the respondents who have been determined, the researchers met with the respondent. Results of research in this paper are the level of application of practitioners in Surabaya on VM and their perception of VM based on their position in their real estate development process.

II. CONCEPT OF VALUE MANAGEMENT

There is no single definition of value and its meaning is abstract or ambiguous [3]. English is the only western language that uses the two words 'value' and 'worth' interchangeably. Worth is defined as 'the lowest cost to perform basic functions reliably' [6].

The first person that introduce the term "value" into the industry, defined "value" as "the relationship between function and cost" using the following equation: Value = Function/Cost was Miles in 1972. VM is the name given to a process in which the functional benefits of a project are made explicit and appraised consistent with a value system determined by the client [1]. VM is focused on the examination of functions aimed at identifying and eliminating unnecessary cost [7]. VM is based on scientific methods of data collection from reliable sources and on functional requirements. The functional requirements try to fulfill the needs, wants, and desires of the customers. A

multidisciplinary team approach is advocated to avoid erroneous decisions of an individual. Then, It is possible to increase the value of a product by increasing its function even when this results in greater cost, if the added function increases more than the additional cost.

A. What VM is

[8] states that the VM is one of the methodologies of design decisions in construction, involving multi-discipline, collaboration and teamwork. According to [1] VM in the UK construction industry has evolved to become 'an established service with commonly understood tools, techniques and styles'. Then [9] describe that VM is widely accepted as an important tool in the management of projects. While this may be so for construction industries in developed countries, but it is not so clear in developing country, it is like Indonesia especially in Surabaya city.

[9] maintained construction process improvement by VM are project schedule improvement, higher quality project, cost effective material, cost or schedule effective design, and efficient maintenance or operating systems. Then [11] declare that VM benefits can be divided into two types, which are monetary value terms and non-monetary value terms such as aesthetics/image, expansion potential, spatial relationship, flexibility or versatility, safety, reduction of environmental pollution, conformity with political considerations sales and marketing considerations.

There are three main methodologies of VM which are job plan, function analysis and Function Analysis System Technique (FAST), and Life Cycle Cost (LCC). Job plan is a disciplined approach consisting of sequenced steps through problem solving process to distinguish VM from other cost cutting processes [12, 6].

B. Director and Manager Role in VM

There are several concepts that describe the participant is required to implement the VM process. [13] explains that the participants in the VM process can be very varieties, depending on the purpose and need for the project, so that not infrequently different companies, also different participants of the process of its VM. As also stated by [14] is a VM studies usually requires a participatory workshop involving representatives of the multidisciplinary group of people working together and following the work plan specified.

[8] explains that the group of participants in the VM process can be the VM facilitators, project managers, architects, landscape architects, civil engineers, the cost estimator, the operator of the facility, operating officers and housing. Further [14] discuss that among other participants VM process is the facilitator and the group if necessary, client, owner, designers, directors and managers, and contractors. Similarly, [13] which describes in more detail that VM participants can have been facilitators of VM process, representatives of the client or the main stakeholders of the project, project managers, architects, structural engineers, service engineers, quantity surveyors, construction adviser, The main contractors, specialist contractors, VM facilitator. From all of the above study, it is noted that the participants in the process of VM should at least consist of a client or owner or representative clients, implementing the design and implementation of the project including the director and the manager.

Value Management Guideline by the [14] describes the role of each participant in the VM, such as;

1. Clients whose role is to ensure value for money.
2. Users whose role is to ensure that projects meet their needs as effectively as possible.
3. The designer or architect role is to meet the expectations of clients and users and to ensure that the principles of planning and design and performance requirements for the project is understood, evaluated and appropriately applied.
4. The director and the project manager role are to seek and ensure that projects are managed in time, quality and budget constraints available.
5. Contractors aim to provide services in such a way that they receive adequate profits.

The duties of clients to meet value for money among which to choose managers value and if necessary choose VM facilitator, providing the initial statement of requirements, identify stakeholders, organize and participate in workshops, then the implementation and feedback [14]

The duties of directors and managers more details is to ensure that the cost savings and the potential improvement or the results can overcome the perceived value management is a difficult problem or overcome the constraints of the project, ensuring that the process is to optimize the balance between capital, operations and maintenance, if necessary, can make sure to accelerate the duration project, ensuring that the cost of high and complex designs can be resolved [14].

III. THE DIFFERENCE BETWEEN VALUE MANAGEMENT AND VALUE ENGINEERING

VM has a business focus and it is strategic in nature whilst value engineering (VE), a subset of VM, has a greater technical focus. In a construction industry focus context [1]. They also said that VM focuses on business project, which is fundamental reason why client organization needs a project in the first place. The business project is expressed normally in a business case, justifying the investment for a project. The business project will be defined in terms of need, finance, returns, benefits, risks, and time horizons. This is strategic phase of a project.

[1] said that technical project, the construction industry's response to that need, is the focus of VE studies. This corresponds to the tactical phase of the business project. The technical project will be defined much more in terms of technical specifications to meet that need. A VM stance necessitates that the technical project should be in alignment with the business project to deliver value for money. VM addresses the business project (which could include the contribution from a program of project) and the alignment of the technical project while VE is concern with aligning correctly stage within the technical project to ensure the business project is delivered through an appropriate technical solution. VM studies have to address not only the business and technical project but also the objectives elements of value as mentioned earlier.

[13] define VM as a structured approach to defining what value means to a client in meeting a perceived need by establishing a clear consensus about the project objectives and how they can be achieved. It also incorporates VE, which is defined as a systematic approach to delivering the required

functions at lowest cost without detriment to quality, performance and reliability.

So, VM defined as the process by which the functional benefits of a project are made explicit and appraised consistent with a value system determined by the client. While VE is the process of making explicit the functional benefits a client requires from whole or parts of a project at an appropriate cost during design and construction, or VE can also be the process of identifying and eliminating unnecessary cost during design and construction [1]. They also state that VM is not about cutting cost, but maintenance cost, operating cost and disposal costs. Making choice about cost could include, deciding to reduce cost, deciding to redistribute the way that cost is allocated and deciding to increase cost.

IV. VALUE MANAGEMENT APPLICATION IN REAL ESTATE DEVELOPMENT PROCESS

Type of questions that is used to determine how much the respondents those apply VM, by given questions with selection number 1 means very rarely to number 5, which means very often. Based on the intensity of the application of value management by respondents, it is noted that many respondents often apply VM to projects that they worked on. It is shown by Fig. 1.

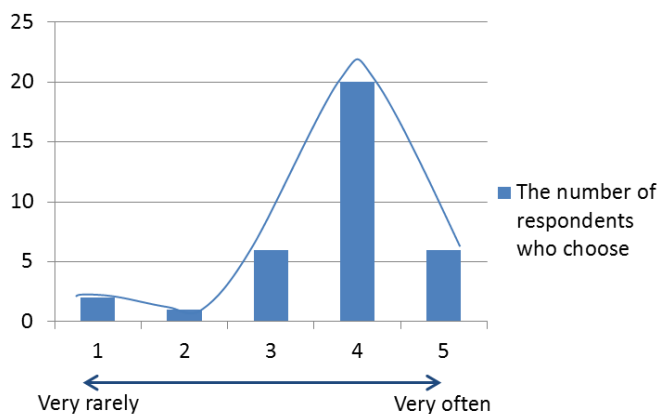


Figure 1. The Application Level of Real Estate Development Practitioners in Surabaya on Value Management

It is known that most of real estate development practitioners in Surabaya are often apply VM to their projects by selecting number 4 as in Fig. 1. They are more than twenty five respondents.

All respondents who work in the 0-5 years old company admitted often apply the VM, then high intensity VM application by 6-10-year-old company as much as 66.7%. 11-15-year-old company less likely to apply VM, only 33.34% of them who claimed to frequently apply the VM. VM application intensity by the company over the age of 20 years is 76.19%. At this synthesis is known that even 0-5-year-old company that tends to frequently apply the VM, so that it can be concluded that the length of these companies cannot stand indicates a high intensity VM application. It is shown by Fig. 2.

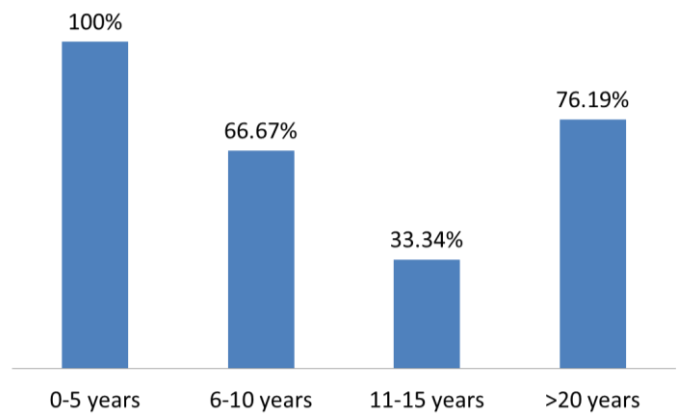


Figure 2. VM Application Intensity Based on The Age of The Companies

VM application level based on respondents' position in real estate development, it is known by classifying respondents by their position, then count the number of respondents who admitted to frequently apply the VM. From the data, it is known that six out of ten directors claim that they often apply the VM, and the rest admitted rarely apply VM. While twenty of twenty five managers claim that they often apply VM when the rest admitted rarely apply VM. Then it is shown by Fig. 3 and Fig. 4.

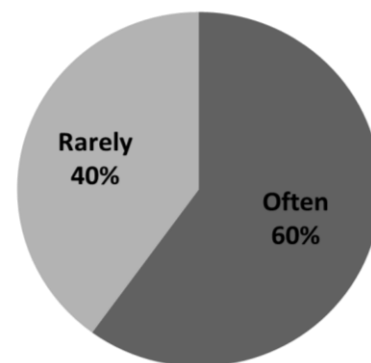


Figure 3. Classification of the Directors who Apply VM

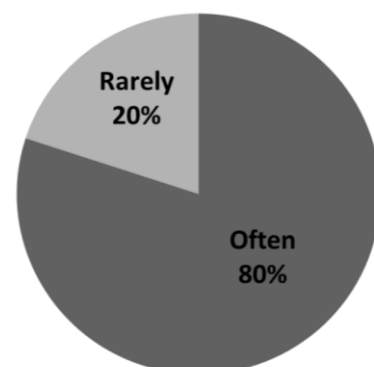


Figure 4. Classification of the Managers who Apply VM

Then, it can be concluded that almost all of respondents often apply VM, whether they are directors or managers. Although it is known from Figure 3 that the number of managers in applying VM more than the number of directors.

V. VALUE MANAGEMENT PERCEPTION IN REAL ESTATE DEVELOPMENT PROCESS

[7] defines VM as the process by which the value of the functional benefits of the project are made explicit and considered consistent with the value system that is specified by the client. While the VE is the process of making explicit the functional benefits needed by clients of the whole or part of a project with the right costs for design and construction, or may also be referred to as the process of identifying and eliminating unnecessary costs during the design and construction [1]. The concept is known that the majority of respondents understand the VM as VE, is evident from the majority of the respondents stressed that management should be able to lower the cost value of the project. But there is no doubt that others understand the VM or even be able to distinguish between VM and VE.

According to [1], VE is part of the VM methods. Because VE is one specialized application of VM to replace or discard unnecessary cost. So it can be understood that many practitioners in Surabaya which has the purpose of the cost effectiveness of the project in the form in order to get maximum profit. As approved by one practitioner mentioned that the VM is applied to the project when it is intended that can manage the cost, so that the project is economical, efficient but not degrade the performance at all.

The comparison between VM applications by the respondent and their perception of VM, it is known that from 60% of directors who claim to apply VM, 83% of them are applying VE. They consider that VE is VM, it is known from their goal of applying VM is to lower the project costs. It is shown by Fig. 5.

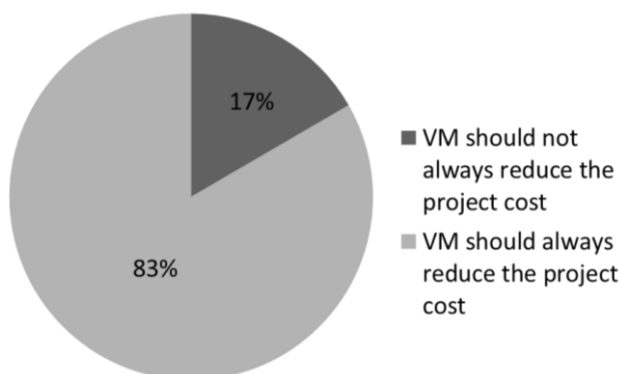


Figure 5. VM Perception By Real Estate Development Directors In Surabaya

Then from 80% managers that claim often apply VM, 35% of them are applied VE by showing their goal that is for reduce the project cost. But 65% of them apply VM and they said that VM should not always reduce the project cost, they even define the project objectives based on mutual agreement is also one form of application of VM. It is shown by Fig. 6.

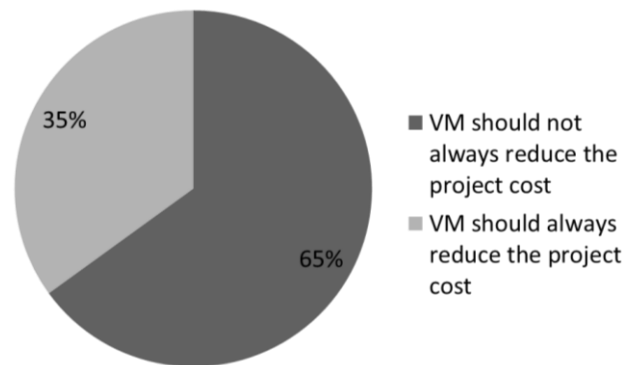


Figure 6. VM Perception By Real Estate Development Managers In Surabaya

Many practitioners who understand VE as VM equivalent to the respondents who claimed to have actually applied the VM, namely 40% of the total respondents. It is shown by Fig. 7. Corroborated by one of statement of the project manager that VM is not necessarily reduce the cost, depending on the purpose of the project, even managed to define the project objectives based on mutual agreement is also one form of application of VM.

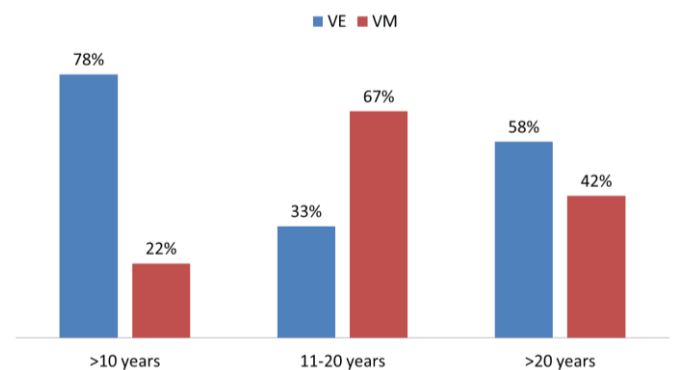


Figure 7. VM Application and Its Perception by Practitioners Based On Their Job Experiences

Not all of respondents have applied VM, 20% of the total sample claimed to have never applied VM, some of them claimed to actually ever apply the VM implicitly without conducting workshops or jobplan, 14% of them actually assume VM as a method to improve value of the project by improving its function, while 6% of them understand the VM as a means to reduce the cost of the project.

So, it can be said that a lot of practitioners who apply VM do not understand about VM, they assume that VE is a VM. Practitioners who play as managers of real estate development more understand about VM than the directors of real estate development.

VI. CONCLUSION

Almost all of respondents often apply VM, whether they are directors or managers. The number of managers in applying VM more than the number of directors. A lot of practitioners who apply VM do not understand about VM, they assume that VE is a VM. Practitioners who play as managers of real estate development more understand about VM than the directors of real estate development.

Indeed, there is nothing wrong with applying VE, because in fact by applying VE, it means that they also apply VM, because VE is subset of VM, but the concern here is different perspective by the practitioners about VM that they said VM has to reduce the project cost.

REFERENCES

- [1] Kelly, J., Male, S. & Graham, D. (2004). *Value Management of Construction Project*, London, E. & F. N Spon.
- [2] Yu, A.T.W & Shen, Q. (2005). Application of Value Management In Project Briefing. *Property Management & Built Environment*. Vol. 23 Iss: 7/8, 330 – 342
- [3] Cha, H.S. (2003). Selecting Value Management Processes For Implementation On Capital Facility Projects, *publish dissertation of Phylosophy*, The University of Texas at Austin.
- [4] Kalay, Y.E., Khemlani, L. & Choi, J.W. (1998). An Integrated Model to Support Distributed Collaborative Design of Buildings. *Automation in Construction*, Vol. 7, hal 177-188.
- [5] Kuncoro, M. (2009). *Metode Riset untuk Bisnis dan Ekonomi, Bagaimana Meneliti dan Menulis Tesis*. Penerbit Erlangga, Jakarta.
- [6] Kaufman, J. J. (1998). *Value Management: Creating Competitive Advantage*. E. & F. N Spon.
- [7] Kelly, J. dan Male, S. (2002). *Value Management in Design and Construction : The Economic Management of Project*, London, E. & F. N Spon.
- [8] Utomo, C. et al. (2014). A Conceptual Model of Agreement Options for Value-based Group Decision on Value Management. *Jurnal Teknologi*. 70:7 (2014), 39–45.
- [9] Ellis, R.C.T., Wood, G.D. & Keel, D.A. (2005). Value management practices of leading UK cost consultants. *Construction Management and Economics*. 23, 483–493.
- [10] Kubal, M.T. (1994). *Engineered Quality in Construction*. McGraw-Hill, New York, NY.
- [11] Dell'Isola, A. (1995). *Value Engineering in the Construction Industry*, New York, Van Nostrand Reinhold.
- [12] Dell'Isola, A. (1997). *Value Engineering : Practical Application*, Kingston, R.S. Means Company, Inc.
- [13] Connaughton, J. N. & Green, S.D. (1996). *Value Management In Construction: A Client's Guide*. Westminster. Construction Industry and Research Information Association.
- [14] Queensland Department of Housing and Public Works. (2010). *Value Management in the Strategic Asset Management - Best Practice Guidelines*. The State of Queensland. ISBN 978-1-921670-16-9