A Review of Techniques for Application of Road Construction

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Abstract: **In order to balance variables such as money, time, and quality, current construction methods require a significant amount of work. The construction sector, when compared to the other industries, seemed to be the hardest to work with. It has been shown that certain contemporary methods may be readily adapted to the project in order to achieve a balance between the variables listed above. The purpose of this study is to determine if Value Engineering is a useful technique for improving the overall quality of construction. The aim is to provide high-quality services at a reasonable cost. the significance of the worth Applied engineering is a technique that is used to analyse the functionality of products, services, and access the best possible quality performance is needed of the good and service user at the lowest possible overall cost without any limitations. Intensive, multidisciplinary problem-solving activity is taking place. In particular, it is concerned with increasing the value of tasks that are necessary to accomplish the objective (or goals) of any product, process, service, or organisation. When we were working on this project, we spoke about the idea of value. Value Engineering may play a critical part in ensuring that programmes remain within budget or even save money when it comes to cost savings. A highly innovative and successful method, value engineering, must be recognised and understood at all levels of project management, and it must be embraced across the globe.**

Keywords: **Road Construction, project management, Value Engineering, construction sector**

I. INTRODUCTION

Value Engineering (**Ibusuki, 2007; Cooper, 2017**) identifies the function of a product or service, builds the value of that function, and ensures that the required function is provided at the lowest life-cycle cost, a recognized technology It is a systematic application. On the highway side, products and services include not only the structural elements of the highway, but also the processes, equipment and consumables used in the development process from concept to operations and maintenance. In all cases, the required functionality should be achieved at the lowest life-cycle cost and meet the performance, maintainability, safety and aesthetic requirements.

Complete the project and assign costs within the specified time period. We deliver value to our customers by providing outstanding customer support. Roads are an integral part of the transport (**Van *et al.,* 2016**) system. A country's mad network (**Yu *et al.,* 2016**) should be efficient in order to maximize economic and social benefits. They play an important role in achieving national development and promoting the overall performance and social functioning of the community. People are aware that roads can improve mobility. Let people get rid of isolation and get rid of poverty. In China for instance, the government has popularized this belief by emphasizing that for any economy to develop, transport (**Van *et al.,* 2016**) must start off first which will later stimulate other sectors to develop in an orderly fashion.

The most important factor that developing countries need is economics. Politics and the military play an important role in each part, but without proper communication and traffic, they cannot achieve a good job. There are three main means of transportation. They are two major land transports, land and land. They are a train and a car, but both require roads. Cars can travel without roads, but they are difficult and dangerous. The train cannot be moved by train. Traveling in tropical countries such as Myanmar is very difficult without roads, even if it is raining. There is dirt here and there, they always cause car and train troubles. Therefore, our government is building roads and railways throughout the country to protect the safety of our citizens. The foundations of the economy are trade and human trade. It needs to be transported. The national economy will develop as people travel and do business in different places. When political ants travel the country to meet the people, they also need a way. They will need a way to get there as soon as possible when officials are ordered to check the area to ensure the safety of the citizens. In this way, people can stay in their home safe and sound and so people.
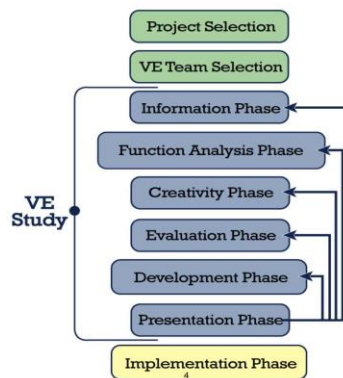
Fig. 1: Value Engineering in Construction

VE is a technology designed to analyze the functionality of a project or process to determine the "best value" or the best relationship between value and cost. In other words, "best value" is always represented by the project or process that performs the basic functions you need and has the lowest life cycle cost. In this case, applying VE to the construction of the facility can produce better value when built with the "limiter" using environmental protection and energy saving practices and materials. Because "cost" is measurable, "cost reduction" is often considered the only basis for VE applications and is, in fact, the main focus of this document. However, the real goal of VE is to "increase value," which does not reduce costs immediately.

VE is a low-cost approach to a system that assesses the "value" of a project. In general, using a project VE has the following advantages:

•Reduce costs.
•Saving time (schedule savings).
•Quality improvement
•Isolate design flaws.

Through comparison between the manufacturing industry and the implementation of construction industry VE, it has proved all aspects and problems of construction industry VE Construction industry VE must be simple, VE method proposed from the perspective of construction industry did. This paper introduces a conceptual expert CBR (integrated collaborative design) framework to form a self-consistent basis for providing a practically appropriate VE expert model. The proposed framework outlines the knowledge entities and their relationships in IP seminars. The model benefits from a fuzzy approach to handle the uncertainty of the evaluation phase of the method. This study reviews the methodology of the existing Reactive Value Engineering **(Ibusuki, 2007; Cooper, 2017)** and focuses on an integral part of the ICD (integrated collaborative design) project to identify it by identifying its defects. I guess. Describes the context of value management that integrates the benefits of value from the need for an integrated approach. In a fuzzy method-based study of uncertainty in the process evaluation stage, this paper focused on an integral part of the ICD (Integrated Collaborative Design) project. It identified the integration approach by reviewing existing passive value engineering methods and identifying their shortcomings. Describes the context of value management **(Ibusuki, 2007; Cooper, 2017)**, which integrates demand-value engineering into an ongoing design process. This article describes the opportunity to leverage vendor design expertise by modelling the information flow of the design process. It provides a comprehensive assessment of value engineering used in the US construction industry by examining current theory and practice. It evaluates value engineering projects and calculates the savings they achieve. How Value Engineering contributes to the Best Solution to Design Problems Construction Projects Minimizes the cost of building construction through the author's experience in project construction in West Africa and the Middle East.

II. LITERATURE REVIEWS

In essence, the literature review identifies, evaluates and synthesizes relevant literature in a particular research area. It highlights the evolution of knowledge in the field, highlighting the work done, the generally accepted content, what is emerging, and current thinking about the topic. In addition, in texts based on research such as doctoral dissertations, the literature review identifies research gaps (i.e., unexplored or under-researched areas) and how does a particular research project address this gap Reveal.

A **literature review** or **narrative review** It is a review article. Literature reviews are scholarly articles that contain current knowledge, including substantive knowledge, and theoretical and methodological contributions to specific topics. Literature review is a secondary source and does not report new or original experimental studies. These comments are often related to scholarly-oriented literature and should not be confused with the reviews that are published in scholarly journals and in the same publication. Literature review is the basis of research in almost every academic field. A narrow range of literature reviews can be used as part of a peer-reviewed journal article that puts current research within the relevant literature subject and introduces new research to provide the reader with background. In this case, the review usually takes place before the Work method and results section.

Lavina, & Mittal, S. (2018) this study seeks to determine the factors of probability of financial distress in the context of real estate and construction in India. Financial ratios covering liquidity, solvency, activity and profitability are used as predictors. In addition, this study carefully studies good predictors of financial distress using linear probability, probability, and logic models. The results conclude that the selected predictors have little impact on financial distress. Return on equity (ROE), as measured by profitability, is an important predictor and inversely proportional to the likelihood of financial distress. This means that return on equity (ROE) is a classification of health status and the most important predictor of weak real estate and construction companies. Therefore, to

avoid financial distress, the real estate and construction industries need to increase return on equity (ROE). Furthermore, this study also shows that the real estate and construction industries do not adopt a conservative capital structure.

In this study, they analysed the factors that lead to financial distress by applying conditional probability models (i.e. linear probability models, profit models, logic models). The results of the linear probability model show that asset return and return on equity are variables that are negatively correlated. Furthermore, the results of the probabilistic model show the same result, but in this case the rate of return on the asset is positively related to financial distress. The results of the Logic model show that return on equity is significantly negatively correlated with financial distress. Therefore, the study concluded that real estate companies and construction companies should strive to maintain profitability to maintain financial soundness. The results also show that the chosen independent variables have little impact on the financial distress of real estate companies and construction companies. This implies that there are other variables in addition to equity returns and asset returns that affect the financial position of these companies. Therefore, we need more discussion on this point.

Kundu, D., & Boral, E. (2018) India is becoming an important business location, especially in the service industry. In Kolkata, development of residential real estate has increased over the past decade. After the extension of the Kolkata Metro, the real estate industry has achieved breakthrough development, especially in the areas where public transport systems pass. This paper attempts to break the relationship between the extension of the subway and the growth of residential real estate. The survey confirmed that there is a positive correlation between changes in subway passenger numbers and real estate growth in the three regions. As a means of public transport, Kolkata Metro can not only enhance accessibility but also change the cityscape through the emergence of real estate. As the number of samples is 120, it is not necessary to represent the opinion of the whole population. Some people may not give the correct answer, which will affect the results of the study. Researchers have to give up the answer to the difference, as some respondents may not be thinking seriously about the timetable.

Zaballos, A., Navarro, J., & Pozuelo, D. M. R. (2018) Information and communication technology (ICT) has led to the development of traditional power distribution networks in a new paradigm known as smart grids. However, the various elements that make up the smart grid's ICT plane are often viewed as independent systems, which makes it difficult to interoperate, manage, and adapt to new situations. . In recent years, software-defined systems that leverage software and high-speed data network infrastructures have become promising alternatives to traditional temporary integration methods, automation, real-time reconfiguration, and resource reusability. The purpose of this white paper is to propose the use of Software Definition Utilities (SDU) to address the potential deployment and management constraints of smart grids. More specifically, a prototype of a data storage and management system for smart grid implemented by SDU is presented, which demonstrates the feasibility of this alternative approach. The system uses a hybrid cloud architecture to meet the data storage requirements of utilities and to adapt to changing needs. The experiments carried out confirmed the feasibility of this solution and encouraged practitioners to direct these efforts in this direction.

This study introduces the evolution and redesign of distributed storage architectures to address the latest smart grid delivery challenges. The first version of the proposed epidemiological replication protocol has been successfully deployed within the scope of INTEGRIS, but its complexity, heavy reliance, and long development period evolve into service delivery through service configuration and development. Urged the practitioner. Software defined architecture in the FINESCE project environment In addition to the operational benefits of using the service portfolio paradigm, this new version of the data management system also supports access control to storage resources, with local passwords and encryption keys Managed and fully integrated into a true cloud computing infrastructure.

Robin, E. (2018) The important work of real estate activities and the fiscalization of urban development to highlight how real estate and investors establish value, expectations, goals through regulation and fiscal reform, and affect urban construction Investors-Developers-are mainly focused on government interactions. However, with emphasis on urban expertise, there is little to do with real estate activity and production in a particular urban form. However, certain "experts" specializing in urban knowledge and the associated urban vision have been shown to influence urban planning and construction in history. Taking the rebuilding of the Kings Cross Centre (London) as a case study, this paper solves this gap and explores how real estate developers shape the production and use of urban expertise in the context of planning Try. . Planning and construction in so doing, it is assumed that re-emphasizing the concepts of political and performance of the expert will help to understand how real estate value penetrates into architectural forms and occurs in space It is assumed. More specifically, it illustrates the important role of real estate developers in defining and defining legal city expertise in the determination of large-scale regeneration projects. In addition, the mobilization of computing techniques and the use of narrow definitions of risk to assess the feasibility of a real estate project, and the uncertainty justify the design of the planning tools used to develop and implement the real estate value. Shows you how to help.

The King's Cross Central Reconstruction case study highlights the important role of real estate developers in defining and defining legal urban expertise in the decision-making process of large scale rebirth projects. The developer's strategy helps to rebuild the parameters that generate and use the city's knowledge. Knowledge production itself is a large and diverse expert system to create long technical reports that allow developers to mitigate political opposition to their projects (from inside and outside the local government) It can be viewed as a political strategy to mobilize. It also allows their values and goals to govern the King's Cross-like decision-making process, and the final key decisions are based on quantitative indicators and financial forecasts. Mobilizing

computing technology and using narrow definitions of risk in assessing the feasibility of the project and its associated uncertainties will design the planning tools used to develop and implement real estate value Help to justify.

Rogers, D., & Koh, Y. S. (2017) Residential real estate, especially foreign investment in new middle class and super-rich investors, is re-emerging as an important political issue in academic, policy and public debate. On the one hand, global real estate has become an asset class for foreigners and institutional investors seeking a diverse portfolio. On the other hand, a series of intergenerational immigration and education programs may also stimulate foreign investors. Government and the public have shown different responses to the latest performance of real estate investment in the world. This mainly includes foreign investment based on geopolitical economics, and foreign investment that mitigates public dissent and protects the local housing market. In this ever-changing global context, the six articles in this special issue on real estate globalization have introduced empirical case studies from Canada, Hong Kong, Singapore, Russia, Australia, and Korea. This editorial highlight four methodological issues highlighted in this article: (1) investor groups and asset types, (2) regulatory environment, (3) geopolitics, (4) spatial differences and time trajectories Emphasizes).

Ahmed, S. M., et al. (2017) In the domestic sector, the increase in energy consumption of home appliances is becoming an increasingly serious problem. Therefore, reducing and adjusting energy usage is important for any home energy management system (HEMS). To better match demand and supply, many utility companies offer housing demand response plans that change the power consumption patterns of home users by reducing or converting peak energy use. In this study, HEMS real-time optimal scheduling controller is proposed to manage energy consumption using a new binary backtracking search algorithm (BBSA). BBSA provides a perfect schedule for home appliances to limit the total load demand and to schedule home appliance operation at specific times of the day. The smart socket and graphical user interface software hardware prototypes are designed to demonstrate the proposed HEMS and provide an interface between the load and the scheduler, respectively. It has been considered to control the most common home appliances: air conditioners, water heaters, refrigerators, and washing machines. The proposed scheduling algorithm is applicable to two situations. The first case considers operation from 4 pm to 11 pm on weekdays, and the second case considers weekends at different times of the day. The experimental results of the proposed BBSA scheduling controller are compared with the two-component particle swarm optimization (BPSO) scheduling controller to verify the accuracy of the controller developed with HEMS. Compared to the BPSO Plan Controller, the BBSA offers better results in reducing energy consumption and total electricity costs, and plans the controller to save energy during specific load peaks.

Sajad, M., & Sadiq, M. (2016) Software engineering focuses on the development and development of large software-intensive systems. Provides theory, methods, and tools for software system specification, architecture, design, test, and maintenance. Today, software system development is very large, complex and important, and only by using automated methods can these systems be economically and timely developed and developed. The use of automated software tools is essential for successful project planning and management. Many automation software tools are often developed for different purposes. The literature on how to choose the right software project management tool is very limited. Identifying quality project management software is very important in the existing tools in the literature. This article will predict which project management tools are of high quality and how to standardize this quality in future project management software development.

Zirape, B. L., & Warudkar, A. A. (2016) The construction industry in India is heading towards international sourcing. Foreign contractors can participate in India's development by establishing joint ventures with local contractors. In a joint venture, the joint venture partner's management system, technical exercises and cultural background have brought about difficulties in joint venture joint ventures. As a result, foreign companies spend more money on proper joint venture strategies to manage risk. The risk of failure in a construction joint venture (JV) is growing rapidly, and its financial losses are more expensive. The survey identified risk factors associated with construction joint ventures (JVs). Risk factors fall into three major categories: (1) internal, (2) specific projects, and (3) external. The survey was conducted via questionnaires and the relative importance index (RII) to identify the most important risk factors. When dealing with the risks of construction projects, find out the most effective mitigation measures taken by construction experts. Detailed questionnaires, literature surveys, and case studies use joint venture (JV) real estate construction project risk management.

Uzoka, E.M-F., et al. (2016) An important aspect of software project management is the initial evaluation of project proposals. Many authors propose different information technology (IT) software project evaluation criteria. A common framework for evaluating software projects should be developed based on a set of manageable standards. In this paper, we identified 83 software project proposal evaluation variables from the literature, conducted direct interviews with the project evaluators, and extracted 31 variables under 10 components using exploratory factor analysis. In the evaluation of software project proposals, it is important to find the product characteristics, user characteristics and supplier experience. The parameters identified in this study can be used as a basis for developing software systems to evaluate software project proposals.

Tanaka, G. (2015) The main purpose of this article is to investigate the value relevance of the accounting information of listed companies (BVL) of the Lima Stock Exchange during the period 1994-2012. Fair value correlations were tested using the Ohlson (1995) model. According to previous studies, the correlation between carrying value and the combined value of earnings per share was very high in the years prior to adoption of the International Financial Reporting Standards (/ FRS), but fell significantly in the next period. In contrast, in this study, empirical results show that even after early adoption of IFRS in Peru, the value relevance of

listed companies in Peru's stock market is still strong (or even lower). In addition, the combined effect of book value, earnings per share and cash flow per share is particularly relevant, and the correlation is higher than the combined effect of book value and earnings per share. Also, at the time of the individual survey, the carrying value relates to cash flow per share or earnings per share (EPS).

Satankar, P. P. (2015) The success or failure of a real estate development project is often influenced by the market conditions, but there are also projects that fail regardless of the market. A successful project can be described as a project that has successfully achieved the overall financial or development goals set by the project developer or stakeholders.
The purpose of this white paper is to identify and investigate the constraints and contributing factors to a successful project. Projects often suffer losses due to heavy work, inadequate project planning, inadequate financial management, or operations management. The mistakes made early in the real estate development process are complex and often insurmountable. For these obvious reasons, the first feasibility, evaluation and planning stages are important to the overall project success.

Iyera, C. K., & Kumar, R. (2015) Real estate projects are usually funded by prepayment from potential customers. The timing of these instalments is important to maintain project cash flow. Based on the DHSS spending model, this paper proposes a cash flow forecasting model combining the effects of schedule delay and cost increase on cash flow, revenue generation and profitability. Data was used to re-create a $ 600 million public project on real estate. The task of the project is to appoint a state-owned enterprise as a project developer, and in addition to the costs, contracts and project financing leases some of the facilities under development. Due to the project's initial delay, cash flow analysis was performed in six subprojects in ten delay scenarios. The survey unveiled the key points of cash flow, followed by strategic relief to increase revenue, optimal structure of instalment plans, and a decline in developer profitability between planned delays and rising costs.

Kim, J-Y., & Choi, J.M. (2015) This study examines the relevance of developing countries to the current inactivity of Korean real estate developers. During economic development, South Korea's developing countries played an exclusive role in large-scale land supply and imposed strict price controls on new homes, weakening the developer's role as an entrepreneur. Furthermore, the state deliberately restricts the flow of funds to the real estate industry, and developers have to resort to their own funds. As a result, large construction companies with the necessary financial strength are best suited as developers and builders, maximizing the use of large physical construction and management costs by maintaining minimum quality standards. This study argues that as the country's development capabilities weaken, especially as capital increases, you will experience the increasingly specialized development of real estate developers.

Matthews, J., et al. (2015) With timely access to information about construction project performance, design teams and contractors can improve their decision-making to ensure that project deliverables are met. This paper explores the effectiveness of cloud-based BIM real-time information delivery to support action-based research for monitoring and managing the progress of reinforced concrete (RC) structures. To accomplish this task, existing paper-based processes were redesigned to use cloud-based BIM during the build. The design and implementation of a real-time object-oriented interactive system allows information to be captured on site (e.g., the status of a "finished" schedule) and synchronized with a federated BIM. A new object-oriented workflow and schedule management process has been proposed for cloud-based technology used in the build process.

Few studies have studied how BIM can be used on site during construction. To solve this problem, researchers at Curtin University are interested in working with industry partners who are interested in extending BIM from site detail design to construction site to specifically monitor actual progress. I have a partnership. To monitor progress in real time, map existing processes and determine how to use BIM 360TM Fields effectively with established projects / organizations. This is because it is well known in the standard literature that combining new technology with existing processes will minimize (if any) decision-making and productivity improvements. However, this white paper does not identify the potential for productivity gains, but rather considers whether new object-oriented workflows and on-site program management processes can be effectively implemented to support BIM cloud-based technology Focus on things. To solve this problem, the process of monitoring and reporting on the progress of the RC framework has been redesigned. A new process has been proposed and its development has provided a way for researchers and partners to reproduce the actual progress. However, please note that the contractor's WBS may be very different from the WBS used in this survey. However, this document laid the foundation for further research, especially in real time costing and quality control. It has been suggested that this type of research should be conducted directly with industry to ensure that the results are appropriate and contribute to the performance and productivity of the construction industry.

Rouanet, H., Halbert, L. (2015) It shows the impact of the financialization of the real estate market in India, focusing on Bangalore. A survey of southern cities concludes that there is a global connection, but local embedded real estate developers can help establish international investment. However, the post-liberalization issue of real estate industry research has not been recognized, which limits our understanding of the ongoing empowerment of local city participants, including developers. In this paper, using cultural and political economics how developers use financial capital to realize better economic and political institutions, and thereby material, symbolic, and political of the city Analyze what promotes change. It first shows that financial capital has a growth strategy based on developers in Bangalore, South India. Subsequently, developers shaped the materials of the city through fragmented medium-scale development projects. While this may be consistent with the government's urban modernization strategy, it is an underutilized barrier for large-scale national projects that are not influenced by the complexity of local land markets or bureaucratic developers. The impact of working capacity In addition, as a builder in a big city, developers are in a position to make a statement

about what an ideal city. These stories aim to integrate the local real estate market into the global financial product chain while justifying the role of the developer himself. As a result, developers are working hard to promote-to achieve some success-prescriptions are conducive to national reform and adopt growth policies that benefit the city. Therefore, the continuous economization of urban production promotes independence of urban developers in India.

Mauck, N., & Price. M. S. (2015) Use a large portfolio of listed real estate investment companies to examine the determinants of foreign real estate investment compared to the domestic case; foreign investment is given in the country where the owner's head office is located It is defined as different from the asset. Cross-cutting results provide strong evidence that real estate companies are likely to reduce investment in large assets when investing abroad. In managing economic activity, real estate investment opportunities, depth and complexity of capital markets, investor protection and legal framework, administrative burden and regulatory constraints, and asset socio-cultural and political environment large assets are preferred. National and national level headquarters. In general, foreign ownership does not have attributes for industrial, office, retail, and self-storage. Capital market development has a negative correlation with foreign investment.

Bailey, J.M., & Muth, F. R. (2015) While differences in quality make it difficult to estimate a real estate price index, these issues can be largely avoided by setting the index based on sales prices at different times of the same property . Problems that combine the relative value of the real estate resale price with the price index can be transformed into a regression problem, and the index can be estimated using standard methods of regression analysis. This method of estimation combines the relative values of prices more effectively than other methods because it uses information about the initial price index included in the delayed sales price. The standard error of the estimated index number can be easily calculated using a regression method, and the impact on attribute values can be removed from the index.

Anghela, I., Hristea, M. A. (2015) The purpose of this paper is to analyze the current situation of the real estate market in the world, to determine the main characteristics that influence investment decisions, to determine the correlation between the real estate market and the financial market, and the latest for future developments Suggest a quote. The international real estate market the financial crisis that began in the second half of the past decade has caused imbalances in all areas of economic, social and social life, causing very interesting mutations. Symbolic international real estate is facing changes in key rhythms such as size, structure and intervention levers. Some of the consequences of the general economic crisis, such as rising unemployment, declining purchasing power and deteriorating aggressive migration processes, are exacerbating the gap between the dynamic rhythms of real estate investment. At the national level, they led the most unexpected decisions. In the past few years, the imbalance between the financial and money markets has led to global instability and speculation. In some countries, uncertainty has been emphasized and the onset of economic recovery has been postponed. In other countries, they constitute strengths to redefine future development strategies. From a geographical point of view, the new map of the real estate market offers something completely different from before 2007. A new generation of "four little dragons in Asia" seems to dominate the property market, with Qatar, Chile and India defining themselves as the most interesting areas for real estate investors.

Susewind, R. (2015) Muslim tenants and buyers of hostility and discrimination connected permanently, as a result, Muslims long history of co-violence-some scholars discriminate urban housing market in India urban area against Hindu Muslims I believe that "slams." Therefore, even if there is no provision for security for non-existent, but also for Muslims to offer urban housing market, the separation, often traditional communities, "a number of security In this story, the state is shown as deprived of the right to seek. Renewal and modernization. Other accommodation. According to the official property registration data and ethnographic fieldwork Uttar Pradesh, I focused on the network and intrigue production practice, a possible 'traditional' Muslim community real architectural boom, this complex story Make The article adheres to the bureaucracy, the election rights and the existence of Muslim's relatively abortion property, thereby improving the developer's profitability and lowering the cost of corruption in the traditional Muslim area It shows that it led to. However, the conspiracy of political and economic differences-no matter how the rest of the discrimination, Muslims say that they have brought positive incentives to demonstrate that their continued separation is not necessarily a complete showing of their rights. I cannot do it.

This study discusses the recent academic interest in the Muslim discrimination process in India's fast-growing property market. As shown in the previous section, the official data collected from the Property Index Registry may confirm the assumption that Muslims are apparently deprived of citizenship and excluded. However, further analysis of these data by my ethnography supports that this hypothesis ignores factors that lead to different integration rather than exclusion in Muslim political economy, especially in corrupt social life. As ethnographic evidence suggests, the role of state institutions and government practices is not only unreliable in providing the state with personal security for Muslims, but also with police. Like others, social networks in the religious sector affect the corrupt political economy surrounding real estate transactions and provide Muslims with incentives.

Zhang, X. (2015) This article provides a critical review of the definition and scope of existing global research on green real estate development, stakeholders, costs and benefits, and how it can be advanced. This emphasizes that the most environmentally friendly real estate development research focuses on policies, technologies, materials, costs and benefits, and execution strategies. The main benefits are seen as helping to create a sustainable society and environment, and the associated green technologies significantly reduce energy consumption and greenhouse gas emissions and improve water efficiency. Various evaluation systems such as LEED and BREEAM also contribute significantly to the progress. Future research will need to address the current major energy

consumption imbalances, the slowing growth of GB BIM and the shortcomings of post-registration certification, and an understanding of the developer's perspective. In particular, further research is needed to support the innovation of evaluation systems to support the decision-making process, and advanced information technology is expected to play an important role. The use of BIM is considered an effective tool to help achieve green property sustainability goals, and is increasingly used in the planning and design phase of projects, but to other phases of BIM Further research is needed to facilitate the application. Another consideration of green asset life cycles is that most major GB rating systems (e.g. LEED, BREEAM) have been developed to adapt to local climate and geographical conditions and are the most suitable for the world It means that there is no system. Therefore, it is necessary to consider how to use the necessary changes in different countries and regions in order to consider the local situation.

Bilozor-Renigier, M., et al. (2014) The development of the real estate market is constrained by various intrinsic and extrinsic factors. The factor chosen will determine the regional characteristics of the real estate market, but other factors will classify it as one of the major branches of the national economy. The rapid economic growth and the search for new investment opportunities have made the real estate market a highly competitive area as various participants implement different investment strategies. Investors look for similarities that allow them to develop a risk minimization strategy. Ratings are the latest tools that can be used to analyze and forecast the real estate market potential. In this paper, we propose a way to formulate real estate market ratings and identify the types and factors that influence real estate market decisions. In this article, the following research hypotheses have been hypothesized and tested: 1) the real estate market is valued according to its importance to the regional economy and the national economy; we support the decision process.

Dalpaos, C., Canesi, R. (2014) The purpose of this article is to provide a new valuation model to address the risks and uncertainties in real estate investment decisions. If the future is uncertain and the investment is long-term and illiquid, it is important to decide at some point to invest and to assess the risk appropriately. During the global financial crisis, investors need to know how to measure risk and to determine the relationship between the risk it carries and the risk premium. The increase in functionality and systemic risk has resulted in the abandonment / delay of investment as the developer is not really confident in the project risk and the market value of the professional assessment. Risk assessment is usually left to value sensitivity and discretion. They introduced a rigorous risk assessment based on mathematical algorithms. These provide an operational framework for resolving risks and uncertainties through a comprehensive approach that third parties can easily understand and apply to different types of attributes. The algorithm presented here allows investors to assess risks and opportunities when considering the risks associated with all phases of a real estate investment project. Thus, investors with different income and expected spending patterns will be able to determine the risks they can tolerate, the returns and timing they need.

Real estate development is a dynamic, multi-step process, where each phase involves the different risks and the diversification between different parties. In the global financial crisis, it is important to invest and correctly assess risk at some point. Investors need to know how to measure risk and need to determine the relationship between risk and risk premium based on their attitude towards risk. The main risk facing investors is that retrospective investments can be negative net present value projects. Risk assessment is usually determined by heroic sensitivity and discretion. This paper proposes a rigorous risk assessment based on mathematical algorithms that allow investors to assess risk and opportunities when considering all phases of a real estate investment project a

Guo, J., Xu, S., & Bi, Z. (2014) In the past, many researchers have studied real estate valuation information systems, including the integration of geographic information systems, artificial neural networks, and so on. In this paper, we propose a new comprehensive approach to real estate appraisal that can be used for the real estate appraisal system. Improve efficiency and accuracy. Due to the limitations of existing real estate valuation methods, they incorporate several elements of the sales comparison method and the revenue method into the cost method to properly improve the accuracy of the real estate valuation. Thus, while the new cost-based integration approach can take into account all key factors, these factors are somewhat related to real estate assets. When implementing a new approach, (1) rethink and expend the concept of alternative costs to account for dynamic, environmental and cultural factors in real estate valuation, (2) traditional depreciation and depreciation Adjust the rate value The positive and negative effects of real estate value (3) Applying the theory of technical economics, systematically analyzing six forces to determine the cost of substitution; and finally, (4) various including artificial neural network based algorithms Use the value adjustment method. Randomness and uncertainty of quality data are processed to determine adjustment values and coefficients.

Lieser and Groh (2014) provide evidence of the determinants of commercial real estate investment activity in many countries around the world. They document the characteristics of many countries that are heavily linked to trading volume, but they do not distinguish between domestic and foreign capital. However, in the past few years, leading real estate services companies have tracked and significantly increased foreign ownership of commercial real estate assets that are widely discussed by mass media. Then, a natural extension of this series of studies is to examine the differences between foreign ownership and domestic ownership. This is what they did in this study. Some may think that there is no substantial difference between the foreign ownership and the determinants of domestic ownership. In other words, logically, it can be considered that country-level functions related to improving real estate investment activity in a particular country can be treated similarly by foreign capital. On the other hand, as most commercial real estate holdings are in the same country as the headquarters, real estate investment companies that hold real estate may need to be very different from foreign real estate investment prospects. According to the same standard null hypothesis that foreign capital and domestic ownership determine the same factor, they are studying why foreign capital and domestic investment differ.

Wang, J., et al. (2014) Construction process descriptions, real-time quality control, and early defect detection are the most important ways to reduce project schedules and cost overruns. Current quality control methods at construction sites are time consuming and inefficient as they provide data at specific locations and times to represent existing work, and the ability for quality managers to easily identify and manage defects Limit. The purpose of this paper is to develop an integrated system of building information modelling (BIM) and light detection and ranging (LiDAR) to provide real time field quality information collection and processing for building quality control. The system performed three major research activities: literature review and research, system development and systematic evaluation. Based on LiDAR real-time tracking system, BIM based real-time detection system, quality control system, point cloud coordinate transformation system and data processing system are divided into five parts, and building quality control system based on BIM and LiDAR is discussed. Next, a system prototype was developed to demonstrate the capabilities of flight path control and real-time construction quality deviation analysis. Finally, three case studies or pilot projects were selected to evaluate the developed system. The results show that the system can effectively identify potential construction defects and support real-time quality control.

Zimmermann, J., & EbeIb, W. (2014) Construction and integration projects for real estate development are becoming complex interactive networks driven by coordination and power. Over the years, networks have been thoroughly analyzed; in particular, sociologists have done amazing things. The methods provided by linear algebra and matrix calculations provide some interesting general parameters for modelling social networks, which are based on their structure for characterizing networks. Social networks are evolving in the context of sociologically specified characters and their interactions, in particular through a series of interactions such as sociology. Software limitations for each platform these procedures can be applied directly to the network of construction project participants such as traders, subcontractors, workers, departments, rating groups and other stakeholders. The generalized personality is also defined by their mission and the corresponding interests and motives for which interactions are given by legal dependencies and contracts. In this case, the real estate development market is not diversified, so participants and rules are given. In this study, we defined the network parameters of the project interaction structure in the architecture and linear algebra based development scenarios, analyzed these parameters, and elaborated on the well-supported interaction scenarios. Furthermore, existing parameters are identified and mapped in this parallel world in order to better understand the organizational plan and to define it as a necessary prerequisite for a properly prepared project.

III. CONCLUSION AND FUTURE SCOPE

The model of this study can be used to evaluate the outcome of the project in VE research. In this model, the technology VE used by each KM is implemented by reducing costs, reducing time and improving quality. Therefore, this model could be used to test another project and be used for other projects in this study separately calculated and displayed the linearity between VE and cost, time, quality. In order to evaluate the effects of VE research, it is necessary to consider not only the final economy but also the interrelationship between VB and time, the relation between VB and quality, and the reciprocation between accelerator and project participants. However, VE, others road construction projects are reviewed and opportunities for better, less expensive means of completing the projects are analysed. The aim is to improve the quality and productivity of the project, to promote innovation, to optimize the design factors and to secure the overall economic cost. The goal of VB's research is to achieve excellence. The goals are to improve quality, minimize total cost of ownership, and reduce construction time. The purpose of value engineering is not just reducing the costs, increasing the design standards, making it easier to build the project and saving time and money. VE must create a balance between all the needs of the project.

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