





## Sustainable project risk and stakeholder management for pension funds projects performance in Kenya

 Olive M. Gitau<sup>(a)</sup>  Paul K. Sang<sup>(b)\*</sup>



<sup>(a)</sup> Ph.D. Student, Department of Management Science, School of Business, Kenyatta University, Nairobi, Kenya

<sup>(b)</sup> Ph.D. Department of Management Science, School of Business, Kenyatta University, Nairobi Kenya, Kenya

### ARTICLE INFO

#### Article history:

Received 20 December 2021

Received in rev. form 23 Jan. 2022

Accepted 02 February 2021

#### Keywords:

Sustainable project management practices, stakeholder management, risk management, Triple Bottom Line (3BL), project performance

#### JEL Classification:

I3, G3, G5

### ABSTRACT

*This paper aims to evaluate the sustainable project risk and stakeholder management for pension funds projects' performance in Kenya. This paper highlights that current project management practices of Kenyan Pension Funds do not always ensure project success that secure desired market returns on these investments. The main problem with projects management practices being mentioned as planning, project implementation, cost and time overruns and quality achievement. As the pension schemes are also expected to continue to invest in alternative assets given the broadening of the allowable investment categories and to take advantage of the public infrastructural projects under the big four agenda (RBA, 2021), it becomes paramount to identify and implement sustainable project management practices for performance of the pension funds projects. The outcome of this paper showed that integration of risk management and stakeholder management practice was one of the key project management practices that would contribute towards pension funds projects performance.*

© 2022 by the authors. Licensee SSBFNET, Istanbul, Turkey. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

## Introduction

Sustainable construction has become the new 'Zeitgeist' in recent years (Zhang et al., 2014) with project managers worldwide including in developing countries being expected to deliver projects in a sustainable manner (Dobrovolskienė and Tamošiūnienė, 2016; Du Plessis, 2007; Ortiz et al., 2009). The concept of corporate sustainability refers to the ability of an organisation in using their limited resources effectively and efficiently over time in which waste is deliberately reduced, and best practices are implemented. It is comprised of three dimensions, economic, environmental, and social sustainability - the Triple Bottom Line (3BL) concept which captures the essence of sustainability (Savitz, 2006).

The temporary nature of projects is not logically compatible with the concepts of sustainable development, with its focus on long term horizons (Silvius et al., 2012: 30). The relation is made by the notion that projects initiate investments and deliver products or services (Weninger and Huemann, 2013). In fact, the relation between sustainability development and projects is often considered on the content side, related to the definition of the product or deliverable of the project. In addition, there is the process or delivery of the project (Gareis et al., 2013). This dichotomy of sustainability by the project and sustainability of the project, is a recurring theme in studies on project management and sustainability (for example Silvius and Schipper, 2015).

Applying the Triple Bottom Line in project management implies including environmental and social criteria, next to economic ones, in the evaluation of the business case of the project (Weninger and Huemann, 2013), the specification of the deliverables (Silvius

\* Corresponding author. ORCID ID: 0000-0002-4633-0377

© 2022 by the authors. Hosting by SSBFNET. Peer review under responsibility of Center for Strategic Studies in Business and Finance.

<https://doi.org/10.20525/ijrbs.v11i1.1535>

and Schipper, 2014), the recognition of stakeholders (Eskeroed and Huemann, 2013) and the assessment of risks (Huemann and Ringhofer, 2016). Eskeroed and Huemann (2013) link sustainable development, projects and the role of stakeholders, and conclude that there is a need “to incorporating stakeholders and their interests in more project management activities.”

In Kenya, the retirement benefits assets under management stood at Kshs. 1,398.95 billion in December 2020. Immovable property accounted for 17.96 percent, equivalent to Kshs. 251.27 billion (RBA, 2021). This is the subject of focus of this study in determining the sustainable project management practices when investing these funds for performance of the pension funds projects. The Retirement Benefits Act 3 of 1997, section 37 states that every scheme shall have a prudent investment policy on the investment of the funds of the scheme so as to maintain the capital funds of the scheme and generally to secure market rates of return on such investment. This is the basis of pension funds engaging in various projects to secure market rates of return for its members within the asset classes allowable by the Retirement Benefits Authority (RBA).

Emerging sustainability issues, such as the threat of climate change, over population, and the emergence of unpredictable sustainability risks, continuously affect sustainable growth (Bui & de Villiers, 2017). Sustainability concerns in delivering construction projects have come to the fore in advanced economies. Yet, developing countries have put economic development above meeting sustainability requirements (S. Banihashemi, et.al., 2017). The need for sustainable retirement benefits over a long period of time has fuelled a huge demand for construction projects hence environmental, social and governance (ESG) concerns being overshadowed. Project managers in Kenya are thus still lagging in integrating the concept of sustainability into core practices of managing projects.

Today every organization faces uncertain events that occur in different environments and with different characteristics and impacts (Alfredo Serpell et.al., 2015). These uncertain events can generate more or less severe consequences for the organization (Aven, 2011). In general, unexpected events occur in projects and may result in either positive or negative outcomes that are a deviation from the project plan. To try to mitigate or eliminate risks, we count on risk management, which is an integral part of project management.

Current project management practices of Kenyan Pension Funds do not always ensure project success that secure market rates of return on these investments. The main problem with projects management practices have always been mentioned as planning, project implementation, cost and time overruns and quality achievement. While, the key success indicators of projects management systems include completing project within the planned budget and duration, and within the required quality, safety, social and environmental limits. As the pension schemes are also expected to continue to invest in alternative assets given the broadening of the allowable investment categories and to take advantage of the public infrastructural projects under the big four agenda (RBA, 2021), it becomes paramount to identify and implement sustainable project management practices for performance of the pension funds projects.

The primary objective of this study was twofold. Firstly, to determine the sustainable project management practices to pension funds projects performance in Kenya. Secondly, to capture the moderating effects of regulatory framework on sustainable project management practices for pension funds projects performance.

This study was based on a comprehensive literature review of the various project management sustainability practices that influence project performance. Secondary data of various academic journals, contributions by various industry experts, professionals and regulatory bodies was mainly used in the desk review done. The subject matter of focus was sustainable project management practices that influence and contribute to project performance with a specific study on pension funds projects in Kenya.

Considering this was a desk review, content analysis was beneficial in allowing the researcher to comprehensively review the journal articles in identifying the sustainable project management practices. From the literature review, it was evident that one of the sustainable project management practices that influence pension funds project performance is integration of risk management and stakeholder management. These were explored from the point of view of the individual contributions of risk and stakeholder management and their convergence area in supporting project performance.

This study hypothesized that to enhance projects performance, the pension funds need to implement sustainable project management practices, take into consideration the governance practices as the mediating variables and focus on regulatory framework as a moderating variable.

The results of Claude and Brian (2012) research showed that the more the project is well defined, the more risk management is used; the more uncertainty there is, the less risk management is used. It was also evident that risk management is not an easy straightforward applicable solution in unforeseeable highly uncertain contexts. The results therefore showed a positive correlation between the level of project definition and the use of project management practices, in particular the use of risk management.

## **Literature Review**

### **Theoretical Framework**

This study hypothesised that to enhance performance, the organisations need to have a proper risk management framework and good relationships with various stakeholders. This study presented three theories: Stakeholder's Theory, triple bottom line theory and risk management theory pertinent with the concept of sustainable project management practices.

### **Stakeholder Theory**

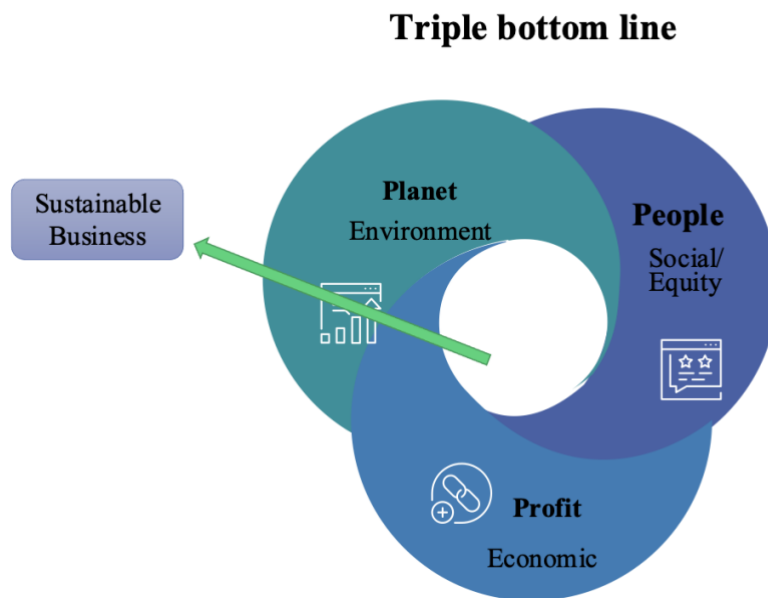
Stakeholder theory claims that organisation's main objective is to create and maximise stakeholder's value. Stakeholder theory postulates that within the organisations there are wider groups of stakeholders involved than only shareholders and investors (M.K. Shad et.al., 2019). It therefore focuses on groups' and individuals' relationships. The essence of stakeholder theory is based on the general belief that the stakeholders are considered as an asset of an organisation and managers have to satisfy them (Zahid and Ghazali, 2017). All stakeholders such as shareholders, managers, employees, creditors, suppliers, customers, government agencies and local community can have interest in a business activities, objectives and behaviour (Aziz et al., 2015).

All stakeholders expect the organisation to disclose their activities and they have the right to get the information as for how organisational activities will influence them, even if they cannot directly play a positive role in the survival of the organisation (M.K. Shad et.al., 2019). The satisfaction of multiple stakeholders increases the goodwill of an organisation. The organisation can maintain its status and reputation in society, which ultimately increases their value.

The reporting on economic, environmental and social aspects determine that it accomplishes its part of the contract and that its activities match with the value systems of society and the environment. This can ensure regulatory compliance that would oblige the strategic requirements of an organisation. In the context of the stakeholder theory, it is established that the effective risk management and sustainable project management practices increase the pension funds projects economic value.

### **Triple Bottom Line Theory**

The triple bottom line was introduced in 1997 which explores three main issues related to our study. Figure 1 represents the environmental responsibility (planet), economic responsibility (profit) and social responsibility (people). Corporate social responsibility ensures that these ideas of people, planet, and profit give a foundation for business. Therefore, a socially responsible country must consider environmental protection and well-being of society which leads to healthy financial performance of the business (Elkington, J., 1997). One is the traditional measure of corporate profit-the "bottom line" of the profit and loss account. The second is the bottom line of a company's "people account" a measure in some shape or form of how socially responsible an organization has been throughout its operations. The third is the bottom line of the company's "Planet" account-a measure of how environmentally responsible it has been. The triple bottom line (3BL) thus consists of three Ps: profit, people, and the planet. It aims to measure the financial, social and environmental performance of the corporation over a period. Only a company that produces a 3BL is taking account of the full cost involved in doing business.



**Figure 1:** Triple bottom line; Source: M. Sarfraz et al. (2018)

### **Risk management Theory**

Risk management is a process that takes place during all phases of the project life. In it, through a sequence of activities including assessment, development strategies and mitigating risks, uncertainties concerning a threat are handled. The analytical approach is based on models of financing projects through three different dimensions: analysis of contracts and institutional relations; estimates and financial modelling; or risk assessment allocation (Burgherr, and Hirschberg, 2014).

The analysis of risk assessment combines the techniques of financial risk management of the project and semi-structured interviews to identify the main perceived risks in the different phases of the project interviews. The risk management of the project includes not

only the processes related to conducting work planning, identification, analysis and response of the risks, but also the monitoring and control of the project. The objectives of risk management are to increase the probability and impact of positive events and decrease the probability and impact of negative events for the project (PMI, 2010). Since the risks exist from the moment a project is conceived, there should be a conscious choice of risks to identify and pursue effective management during the life of the project.

In the past four decades, research on risk management has grown considerably in the construction industry (Chapman & Ward, 2011; Lehtiranta, 2011) due to the fact that construction projects are permanently exposed to risks and are perceived as projects with greater inherent risk due to the involvement of many stakeholders. According to Alfredo Serpell et al., (2015), it is possible to analyze project risks from two different perspectives. From the point of view of the client, who is key to decision-making in the project, and from the point of view of the contractor, who traditionally increases costs to hedge risks, but given that the margin utility is getting lower, is facing a practice that has become unprofitable (Baloi and Price, 2003). These two groups have different behaviours against the risks of the project and different possibilities of transferring risks to the party best able to manage them (Wang et al, 2011).

It is known that over time and in different countries, the construction industry tends to use a limited number of risk management techniques, which are not appropriate for every situation. Among the techniques used to identify the risks are the brainstorming, checklist; sensitivity analysis and risk register (Goh et. al., 2013), also indicating that qualitative methods for risk assessment are much more used than quantitative or semi-quantitative methods.

The aforementioned deficiencies have an impact on the project development. In construction projects, risks can seriously affect its main objectives: time, cost, scope and quality, which can mean an additional cost and hence a low rate of return on the investment for the customer and a loss of profit for the contractor, in addition to other consequences. Despite this, risk communication is imprecise, incomplete, and inconsistent throughout the value chain of construction projects (Tab and Carr, 2001a; Aven, 2011). In addition, project participants have not a common understanding of project risks and their consequences, which precludes an implementation of effective and early warning measures and strategies to mitigate adequately the problems resulting from a decision-making in any part of the chain (Tab and Carr, 2001b).

## **Integration of Risk Management and Stakeholder Management**

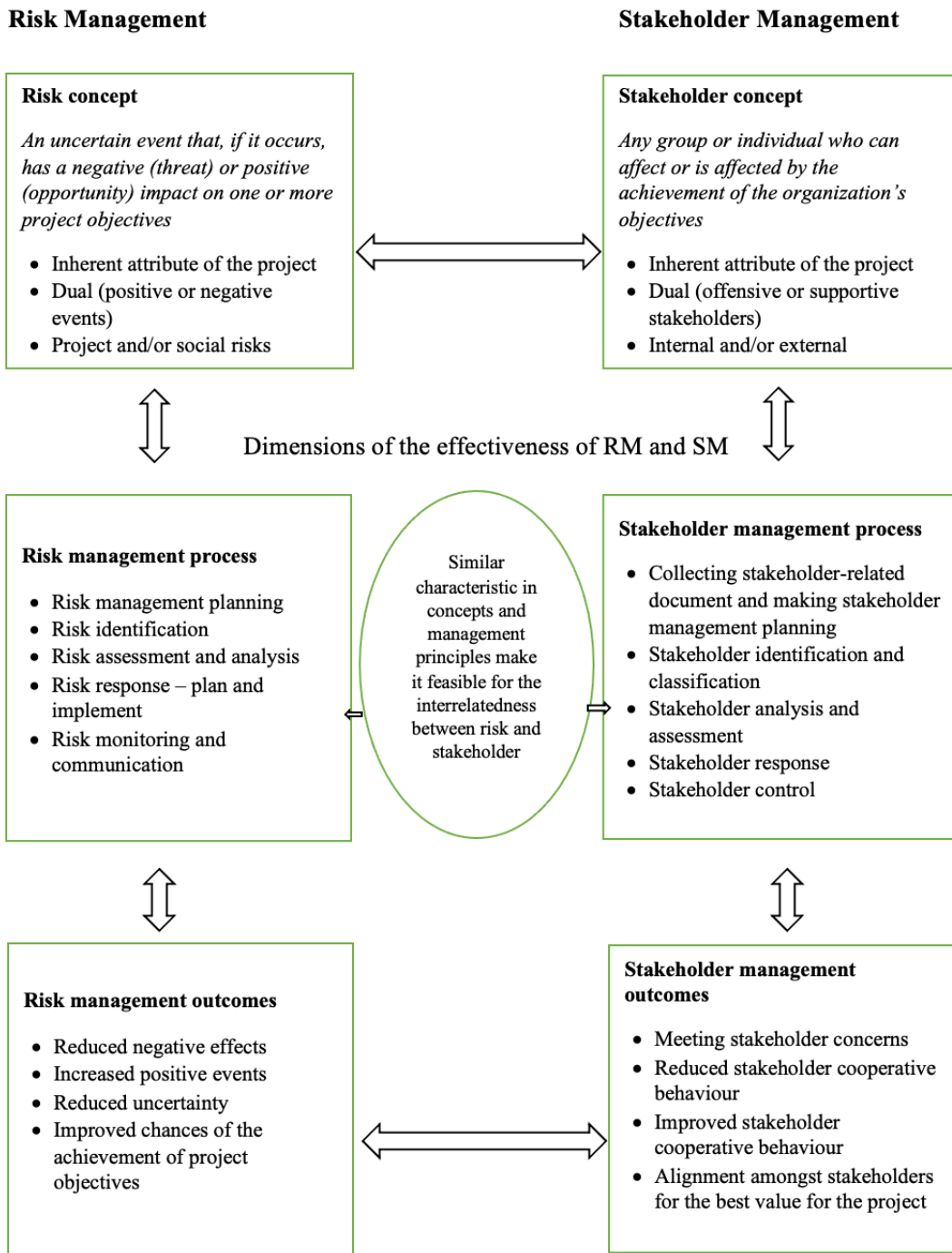
To pursue the success of construction projects, risk should be managed effectively (Chapman and Ward, 2004; Du et al., 2016; Zou et al., 2007). Construction projects are also frequently faced with complex problems related to stakeholders, including conflict among project team members such as clients and contractors (Hwang and Ng, 2016; Lehtiranta, 2014), as well as protest from external parties such as the affected community (Mok et al., 2015; Olander, 2007).

Meta-analyses of stakeholder theory applications in a project context have shown that management of stakeholders is vital to the successful implementation of various kinds of projects, among which the construction industry is a dominant sector (Achterkamp and Vos, 2008; Littau et al., 2010). Despite the salience of both risk management (RM) and stakeholder management (SM) in construction projects, there are still numerous project failures resulting from poor management in risk and stakeholder (Flyvbjerg et al., 2002; Mok et al., 2015). It thus calls for much more effort from the theory and practice on these two critical issues.

Integrated management of RM and SM in the project and the organization context has been demonstrated to reduce objective conflict, achieve more efficient effectiveness resource allocation, improve mutual management, and bring new perspectives for managerial practices, sustainable development, and so on (Bernardo et al., 2015; Kerzner, 2001; Loushine et al., 2006; Love et al., 2016; Rebelo et al., 2016). Hence, risk-stakeholder integrated management will be of benefit to project managers who, in many cases, have to concurrently manage complex and multiple tasks, (N. Xia et.al., 2018).

N. Xia et.al. (2018), compared the concepts and management principles of risk and stakeholder management in construction projects, as summarized in Fig. 2 below. Regarding the concept of each area we note, (1) both risk and stakeholder are an inherent attribute of the project with possible influences on project objectives, (2) both risk and stakeholder are in fact a dual variable, which can be positive or negative to the project, and (3) risk and stakeholder issues can arise from both the project and its external environment.

As N. Xia et.al. (2018) defined, the process domain and the outcome domain together reflect the effectiveness of RM and SM, and elements of RM and SM share similarities in each domain. The stages for the RM and SM process are similar in identifying and classifying elements (risks or stakeholders), analysing and assessing, responding, and ultimately controlling each element. Outcomes of RM include reduced negative events, increased positive events, reduced uncertainty (or improved ability in coping with uncertainty), and improved chances of the achievement of project objectives.



**Figure 2:** Conceptual framework: similarities between risk and stakeholder concepts, management processes, and outcomes.

Source: N. Xia et.al. (2018)

On the other hand, benefits of effective SM consist of meeting stakeholder concerns, reduced stakeholder conflicts, improved stakeholder cooperative behaviour, as well as alignment among stakeholders for the best value for projects but not for their own interests. To conclude, risk and stakeholder management share certain similarities in the definitions, management processes, and outcomes, and these similarities lay the basis for possible connections between these two fields.

Positive outcomes of RM refer to mitigated adverse conditions or events that can threaten project objectives, indicating good project performance (De Bakker et al., 2011; PMI, 2013). Likewise, the outcomes of SM are also considered as one indicator of project success (Davis, 2016). Numerous studies have suggested coordination, cooperation, integration among stakeholders as indicators of project success (e.g., Cleland, 1988; Francom et al., 2016; Meng, 2012). Second, there is research pointing out the positive effects of both RM and SM processes on certain aspects of project performance such as transaction costs, or the entire success of project. Li et

al. (2014) contended that fair risk allocation and good relationships with project stakeholders can be effective at reducing transaction costs in construction projects.

Project risk management was identified as a key sustainable project management practice.

## **Project Risk Management Practices**

Project Risk Management (PRM) is related to the set of practices and tools generally used to manage project risk. From the literature survey, Claude and Brian (2012) found the link between uncertainty and failure (or between certainty and success) seemed to be well established, but the link between risk management and success was not as clear. Risk professionals from PMI risk management (Voetsch et al., 2004), also reported that despite the high visibility and favourable perception of risk management in their organizations, an important gap existed between interest for risk management and resource allocation and staff training; a lot of people talk about risk, but not so many do something about it.

Management of risk therefore is one of the most important processes of project management, a crucial determinant of success (Backlund et al., 2014). As the complexity of projects increases, it becomes more important to assess and control risk throughout all the phases of a project (Cagliano et al., 2015).

The results of Claude and Brian (2012) research showed that the more the project is well defined, the more risk management is used; the more uncertainty there is, the less risk management is used. It was also evident that risk management is not an easy straightforward applicable solution in unforeseeable highly uncertain contexts. The results therefore showed a positive correlation between the level of project definition and the use of project management practices, in particular the use of risk management.

For project risk management to be effective: (1) risks that might affect the project achieving its objectives need to be identified, captured and described, (2) each risk needs to be assessed to understand its probability, impact and timing (proximity) so that it can be prioritized. The overall risk exposure needs to be kept under review, together with the impact of risk on the overall business justification for the project, (3) responses to each risk need to be planned, and assigned to people to action and to own, and (4) risk responses need to be implemented, monitored and controlled.

Throughout the process, information about risks must be communicated within the project and to stakeholders. Effective project risk management therefore provides confidence that the project is able to meet its objectives and that the business justification continues to be valid. It supports decision-making by ensuring that the project team understand not only individual risks but also the overall risk exposure that exists at a particular time.

Project Risk Management (PRM) is a process intended to help project players identify, assess and minimise risks to the project while maximising cost certainty. PRM is relevant for all project phases/stages, tasks and players/stakeholders. There is therefore need for efficient and effective PRM to support project managers in using risk management to increase cost certainty (Firmenich, 2017).

## **Regulatory Framework**

The Retirement Benefits Act mandates the Retirement Benefits Authority (RBA) to (1) regulate and supervise the establishment and management of retirement benefits schemes, (2) protect the interests of members and sponsors of retirement benefits sector, (3) Promote the development of the retirement benefits sector, and (4) Implement all government policies relating to the industry.

The asset category of immovable property in Kenya forms the area of focus and study of this paper. The pension funds/schemes opt to acquire property either through direct purchase of a complete commercial or residential property investment asset or through construction of the property. The reviewed literature of the Pensions Industry brief by Retirement Benefits Authority as of December 2020 revealed that the retirement benefits assets under management was valued at Kshs. 1,398.95 billion. Of this figure, 17.96 percent (Kshs. 251.25 billion) represented investments in immovable property. This was the second highest asset class investment in the industry after government securities at 44.72 percent.

Regulatory framework is the moderating variable in this study. It was used to check the effects of regulatory framework on the project performance of the pension funds projects in Kenya. RBA has been ably mandated by the Kenyan government through an act of Parliament to set the regulations and policies that govern the pension industry in Kenya. This is to protect the interests of members and sponsors of retirement benefits sector and promote the development of the retirement benefits sector.

According to OECD Network of Economic Regulators, (2021), regulatory bodies are playing an active role in promoting the transition towards a sustainable global economy. They also operate in a context of increasing complexity, technological disruption and constrained resources, while having to manage uncertainty and create enjoyable, prosperous and safe places to live, work and do business. The transition towards a sustainable global economy includes sustainable project management practices that align with the social, environmental and economic goals. RBA is therefore at the forefront of providing regulatory guidelines in relation to the sustainability agenda that will positively influence pension funds' investments.

## **Implications**

Pension funds undertake construction projects under the immovable property asset class<sup>1</sup> to make measurable improvements that will contribute to the investment objective of maximising the long-term return on investments and minimising short-term volatility and anticipated liquidity needs while taking cognisance of the nature, size, type, and maturity profile of the respective Schemes. PRINCE2 (2017) states that all projects must have documented business justification, which is a precursor to a sustainable project. This sets out not only the reason for the project, but also confirms the projects is viable (able to deliver the investment property), desirable (balance of costs, benefits and risks) and achievable (whether use of the investment property is likely to result in envisaged outcomes and resulting benefits).

Pension funds construction of commercial and/or residential projects for rent or sale focuses on diversification of the Funds asset classes to meet the objective of optimising returns to their members. These projects deliver output (complete investment property), the use of which result in changes in the pension funds' performance. These changes then create outcomes (rental income or sales) which allow the pension funds to realise the benefits (optimal returns to members) that are set out in the business justification for the projects.

Project management sustainability is therefore supported by continuous business justification which is usually documented in a business case. The benefits specified for providing optimal returns to members should therefore be aligned with funds and other stakeholders' objectives and be realised.

Adequate stakeholder engagement involved identifying people, groups or organizations that could impact or be impacted by the project and developing appropriate management strategies for effectively engaging stakeholders in project decisions and execution (PMBOK, 2017). Project risk management involved the process of conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring risk on a project. Effective management of the project risks reduced time and cost of the project and improved performance supporting the economic, environmental, and social sustainability goals. Social sustainability was also supported through engagement of the various stakeholders and environmental sustainability achieved by taking into consideration the regulators environmental interests, including adapting the pension projects to climate change initiatives. Integration of risk management and stakeholder management therefore includes a broad stakeholder analysis in the RM process, enhancing RM ability through vertical and horizontal stakeholder management and investigating the mechanism stakeholder differences affect their variations in risk to establish a holistic picture among the management process and outcome of RM and SM for project performance.

Pension funds construction projects not only involve the risk of cost overruns but affecting the ecosystems and related environmental impacts based on the type of property investment undertaken. There is need to factor sustainable environmental goals that address issues such as climate change effects ensuring strategies to address these are considered in the construction projects. Includes, renewable energy production to support the energy needs of the investment property since climate change is unavoidable. This will ensure optimal returns by minimising costs and hence support social dimension of sustainability by meeting the energy needs of the customers. The economic dimension of sustainability will also be met through supply of cost-efficient energy needs and consequently supporting environmental sustainability goals by addressing pollution and emission of greenhouse gases concerns.

Pension funds projects are seen as public investment projects because they concern the interests of many members whose objective is to gain an optimal return on their investment for a secured retirement. There is therefore a focus on project sustainability practices. Coordinating and understanding multiple stakeholder viewpoints is part of social sustainability. Managers need to understand that these viewpoints are as important as ecological issues that are the traditional focus when sustainability is considered. They need to consider practices for project sustainability governance, as the involvement of the pension funds, regulators and other stakeholders toward sustainability needs to be specified and agreed. In pension funds projects, intensive and collaborative planning is beneficial not only for project's deliverable but also for enabling innovativeness and sustainable practices throughout the implementation of the project.

## **Conclusion**

Customising and providing options to PRM to address cost pressure, potential competence issues and threats to decision making enhances an efficient and effective PRM that supports project managers in increasing cost certainty. Dynamism of a PRM framework ensures it keeps developing and evolving overtime, learning from one project and over the course of future projects. The results of applying a customisable PRM framework is an implementable, project-specific risk management process that provides the best output with the quantity and quality of resources available. Improved PRM can therefore lead to major benefits such as: maximization of cost and planning certainty; minimization of risk cost; optimization of the planning phase; reduction of opportunism and other threats of rational decision-making; acknowledgement of uncertainty; improved project coordination; and project optimization regarding financing, investor search and due diligence.

---

<sup>1</sup> A specific area/type of investment e.g., domestic listed equities, property, offshore, fixed income, etc.

It was evident from the literature that for sustainability of projects, the ability to quickly react to change has become paramount to the success of an organization. This applies directly to the pension funds when implementing construction projects. Projects have become the catalysts by which pension funds achieve their strategies, and the ability to manage projects effectively has become a required competency. Sustainable project management practices such as project risk management can be achieved based on understanding the risks related to the project and their interactions with Industry 4.0 technologies (Santosh et al., 2019).

There is need to embed sustainability in the construction contract and the performance indicators of the projects, drawing attention to good sustainability-oriented plans (Jesse and Lauri (2017). Large infrastructure projects involving multiple stakeholder interests are susceptible to public and political debate. Pension funds in Kenya can find themselves in this space and therefore, intense planning is required in the early phase of the project in proactively resolving the public's social and environmental concerns and eventually promoting the project's economic success.

The study proposes a pool of sustainable project management practices for project performance of pension funds construction projects in Kenya. The findings revealed novel insights related to sustainable project management practices that contribute to project cost efficiency, completion of the projects within schedule, as per quality standards and within scope.

The paper also examined the moderating effect of regulatory framework on the sustainable project management practices and pension funds projects performance in Kenya. It emerged that the regulatory environment is largely supportive of sustainability initiatives that support the people (social), planet (environmental), profit (economic) objectives, and therefore contributing towards sustainable project management practices. These further contribute towards the triple bottom line agenda, which focuses on sustainable business practices and influencing the achievement of the iron triangle objectives.

The study will be beneficial to project management practitioners across various sectors and industries to appreciate a holistic project management practice that focus on sustainability towards achieving project performance in pension funds projects. The explored sustainable project management practices, that is, risk management, stakeholder management and integration of RM and SM were found to positively influence project performance which would then be expected to be the same in pension funds projects in Kenya. This in turn will assist the pension funds in achieving their targets of providing sustainable returns to their members through the investment opportunities undertaken in the construction space under the immovable property asset class.

All authors have read and agreed to the published version of the manuscript.

**Author Contributions:** Conceptualization, O.G and P.S.; methodology, O.G and P.S.; formal analysis, O.G and P.S.; investigation, O.G and P.S.; resources, O.G; writing—original draft preparation, O.G and P.S.; writing—review and editing, O.G and P.S.; supervision, P.S; project administration, O.G.; funding acquisition, O.G.

**Funding:** This research was funded by Olive Gitau

**Informed Consent Statement:** “Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** The data presented in this study are available on request from the corresponding author.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

- Achterkamp, M.C., Vos, J.F., (2008). Investigating the use of the stakeholder notion in project management literature, a meta-analysis. *International Journal of Project Management* 26 (7), 749-757. <https://doi.org/10.1016/j.ijproman.2007.10.001>
- Alfredo Serpell, Ferrada, X., Rubio, L. and Arauzo, S. (2015). Evaluating risk management practices in construction organizations. *Published by Elsevier Ltd. Procedia – Social and Behavioural Sciences* 194 (2015) 201-210 <https://doi.org/10.1016/j.sbspro.2015.06.135>
- Aven, T. (2011). On the new ISO guide on risk management terminology. *Reliability Engineering and System Safety*. 96: 719-726. <https://doi.org/10.1016/j.ress.2010.12.020>
- Aziz, NA.A., Manab, NA., Othman, S.N., (2015). Exploring the perspectives of corporate governance and theories on sustainability risk management (SRM). *Asian Economic and Financial Review*, 5 (10), 1148. <https://doi.org/10.18488/journal.aefr/2015.5.10/102.10.1148.1158>
- Backlund, F., Chroner, D. and Sundqvist, E. (2014). Project Management maturity models – a critical review. *Procedia – Social and Behavioural Sciences*, Vol. 119 No. 1, pp. 837-846 <https://doi.org/10.1016/j.sbspro.2014.03.094>
- Baloi, P. & Price, A. (2003). Modelling global risk factors affecting construction cost performance. *International Journal of Project Management*, 21(4). 262-269. [https://doi.org/10.1016/S0263-7863\(02\)00017-0](https://doi.org/10.1016/S0263-7863(02)00017-0)
- Banihashemi, S., Hosseini, M.R., Golizadeh, H. and Sankaran, S. (2017). Critical Success factors (CSFs) for integration of sustainability into construction project management practices in developing countries. *International Journal of Project Management* <https://doi.org/10.1016/j.ijproman.2017.01.014>
- Bernardo, M., Simon, A., Tari, J.J., Molina-Azorin, J.F., (2015). Benefits of management systems integration: a literature review. *Journal of Cleaner Production*, 94, 260-267. <https://doi.org/10.1016/j.jclepro.2015.01.075>
- Cagliano, A.C., Grimaldi, S. and Rafele, C. (2015). Choosing project risk management techniques: A theoretical framework. *Journal of Risk Research*, Vol. 18 No. 2, pp. 232-248 <https://doi.org/10.1080/13669877.2014.896398>



- Chapman, C., Ward, S., (2004). Why risk efficiency is a key aspect of best practice projects. *International Journal Project Management*, 22 (8), 619-632. <https://doi.org/10.1016/j.ijproman.2004.05.001>
- Claude, B. and Brian, H. (2012). The paradox of risk management; a project management practise perspective. *International Journal of Managing Projects in Business*, Vol. 5 No. 2, pp. 230-247 <https://doi.org/10.1108/17538371211214923>
- Cleland, D., (1988). Project stakeholder management. In: Cleland, D., King, W. (Eds.), *Project Management Handbook*. Van Nostrand Reinhold, USA. <https://doi.org/10.1002/9780470172353.ch13>
- Davis, K., (2016). A method to measure success dimensions relating to individual stakeholder groups. *International Journal of Project Management*. 34 (3), 480-493. <https://doi.org/10.1016/j.ijproman.2015.12.009>
- De Bakker, K., Boonstra, A., Wortmann, H., (2011). Risk management affecting IS/IT project success through communicative action. *Project Management Journal* 42, 75-90. <https://doi.org/10.1002%2Fpmj.20242>
- Dobrovolskiene, N., Tamosiiniene, R., (2016). Sustainability-oriented financial resource allocation in a project portfolio through multi-criteria decision-making. *Sustainability* 8, 485. <https://doi.org/10.3390/su8050485>
- Du Plessis, C., (2007). A strategic framework for sustainable construction in developing countries. *Construction Management and Economics*. 25, 67-76. <https://doi.org/10.1080/01446190600601313>
- Eskerod, P., Huemann, M., (2013). Sustainable development and project stakeholder management: what standards say. *International Journal of Managing Projects in Business*. 6 (1), 36-50. <https://doi.org/10.1108/17538371311291017>
- Firmenich, J. (2017). Customisable framework for project risk management. *Construction Innovation*, Vol. 17 No. 1, pp.68-89 <https://doi.org/10.1108/CI-04-2015-0022>
- Flyvbjerg, B., Holm, M.S., Buhl, S., (2002). Underestimating costs in public works projects: error or lie? *J. Am. Plan. Assoc.* 68 (3), 279-295.
- Francom, T., ASMar, M.EI, Ariaratnam, S., (2016). Performance analysis of construction manager at risk on pipeline engineering and construction projects. *Journal of Management in Engineering* 32 (6), 04016016. [https://doi.org/10.1061/\(ASCE\)ME.1943-5479.0000456](https://doi.org/10.1061/(ASCE)ME.1943-5479.0000456)
- Gareis, R., Huemann, M., Martinuzzi, A., Weninger, C., Sedlacko, M., (2013). *Project Management & Sustainable Development Principles*. Project Management Institute.
- Huemann, M., Ringhofer, C., (2016). Challenge or potential? Risk identification in the context of sustainable development. In: Bodea, C., Purnus, A., Hueman, M., Hajdu, M. (Eds.), *Managing Project Risks for Competitive Advantage in Changing Business Environments*. IGI Global Publishing, pp. 87-105. DOI: 10.4018/978-1-5225-5481-3.ch061
- Hwang, B.G., Ng, H.B., (2016). Project network management: risks and contributors from the viewpoint of contractors and sub-contractors. *Technology and Economic Development of Economy*. 22 (4), 631-648. <https://doi.org/10.3846/20294913.2015.1067847>
- Kerzner, H., (2001). *Project Management: A Systems Approach to Planning Scheduling and Controlling*. 7th ed. John Wiley & Sons, New York.
- Lehtiranta, L., (2014). Risk perceptions and approaches in multi-organizations: a research review 2000-2012. *International Journal of Project Management* 32 (4), 640-653. <https://doi.org/10.1016/j.ijproman.2013.09.002>
- Littau, P., Jujagiri, N.J., Adlbrecht, G., (2010). 25 years of stakeholder theory in project management literature (1984-2009). *Project Management Journal*. 41 (4), 17-29. <https://doi.org/10.1002%2Fpmj.20195>
- Loushine, T.W., Hoonakker, P.L.T., Carayon, P., Smith, M.J., (2006). Quality and safety management in construction. *Total Quality Management Bus. Excell.* 17 (9), 1171-1212.
- Love, P.E.D., Teo, P., Morrison, J., Grove, M., (2016). Quality and safety in construction: creating a no-harm environment. *Journal of Construction Engineering and Management* 142 (8), 05016006. [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0001133](https://doi.org/10.1061/(ASCE)CO.1943-7862.0001133)
- [PRINCE2®] Axelos Limited. (2017). *Managing Successful Projects with PRINCE2®* Axelos Global Best Practice
- Meng, X., (2012). The effect of relationship management on project performance in construction. *International Journal of Project Management* 30 (2), 188-198. <https://doi.org/10.1016/j.ijproman.2011.04.002>
- Mok, K.Y., Shen, G.Q., Yang, J., (2015). Stakeholder management studies in mega construction projects: a review and future directions. *International Journal of Project Management* 33 (2), 446-457. <https://doi.org/10.1016/j.ijproman.2014.08.007>
- Olander, S., (2007). Stakeholder impact analysis in construction project management. *Construction Management and Economics* 25 (3), 277-287. <https://doi.org/10.1080/01446190600879125>
- Ortiz, O., Castells, F., Sonnemann, G., (2009). Sustainability in the construction industry: a review of recent developments based on LCA. *Construction and Building Materials* 23, 28-39. <https://doi.org/10.1016/j.conbuildmat.2007.11.012>
- Project Management Institute, (2010). *Managing Project Risk: In a Guide to the Project Management for (PMBOK Guide)*. 5th Ed.; Global Standard; *Project Management Institute*: Newtown Square, PA, USA, 2010; pp. 234-266.
- PMI (Project Management Institute), (2013). *A Guide to the Project Management Body of Knowledge (PMBOK Guide)* (Newtown Square, PA).
- PMI - Project Management Institute (2017). *A Guide to the Project Management Body of Knowledge. (PMBOK® GUIDE)* 6th Edition
- Rebelo, M.F., Santos, G., Silva, R., (2016). Integration of management systems: towards a sustained success and development of organizations. *Journal of Cleaner Production* 127, 96-111. <https://doi.org/10.1016/j.jclepro.2016.04.011>

- Retirement Benefits Authority (RBA), 2020. Retirement Benefits Industry Report for December 2020. Research and Strategy Department.
- Savitz, A.W., (2006). *The Triple-bottom Line: How Today's Best-run Companies are Achieving Economic, Social and Environmental Success - And How You Can Too*. John Wiley & Sons, San Francisco.
- Silvius, M.G., van den Brink, M.J., Schipper, M.R., Planko, M.J., Kohler, M.A., (2012). *Sustainability in Project Management*. Gower Publishing, Ltd.
- Silvius, A.J.G., Schipper, R., (2015). Developing a maturity model for assessing sustainable project management. *Journal of Modern Project Management* 3 (1), 16-27.
- Tab. J. & Carr. V. (2001a). Towards a framework for project risk knowledge management in the construction supply chain. *Advances in Engineering Software*. 32. 835-846. [https://doi.org/10.1016/S0965-9978\(01\)00035-7](https://doi.org/10.1016/S0965-9978(01)00035-7)
- Tab. J. & Carr. V. (2001b). Knowledge-based approach to construction project risk management. *Journal of Computing in Civil Engineering*. 15. 170-177.
- Voetsch, R., Cioffi, D. and Anbari, F. (2004). Project risk management practices and their association with reported project success. *Proceedings of 6th IRNOP Project Research Conference, London, England, August*.
- Weninger, C., Huemann, M., (2013). Project initiation: investment analysis for sustainable development. In: Silvius, A.J.G., Tharp, J. (Eds.), *Sustainability Integration for Effective Project Management*. IGI Global Publishing. DOI: 10.4018/978-1-4666-6268-1.ch001
- Xia, N., Zou, P.X.W., Griffin, M.A., Wang, X. and Zhong, R., (2018). Towards integrating construction risk management and stakeholder management: A systematic literature review and future research agendas. *International Journal of Project Management*, 36 (2018) 701-715 <https://doi.org/10.1016/j.ijproman.2018.03.006>
- Zahid, M., and Ghazali, Z., (2017). Corporate sustainability practices and business's financial performance: the driving force of integrated management system. *Global Business Management Research*. 9 (1s), 479.
- Zhang, X., Wu, Y., Shen, L., Skitnore, M., (2014). A prototype system dynamic model for assessing the sustainability of construction projects. *International Journal of Project Management* 32, 66-76. <https://doi.org/10.1016/j.ijproman.2013.01.009>

**Publisher's Note:** SSBFNET stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



© 2022 by the authors. Licensee SSBFNET, Istanbul, Turkey. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

International Journal of Research in Business and Social Science (2147-4478) by SSBFNET is licensed under a Creative Commons Attribution 4.0 International License.