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ESG Driven Project Portfolio Management: Insights from an Insurance Company Case Study

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Abstract

This paper explores the integration of Environmental, Social, and Governance (ESG) principles into Project Portfolio Management (PPM) within the insurance sector. Through a case study of a Croatian insurance company, it illustrates how ESG Key Performance Indicators (KPIs) can be embedded into project portfolio governance to drive sustainability performance. The study reviews current literature on sustainable project management and ESG-PPM integration, highlighting both theoretical advances and the lack of practical models. The case study demonstrates that structured ESG frameworks, combined with systematic monitoring and project evaluation, can significantly enhance ESG ratings, corporate reputation, and operational alignment with sustainability goals. The findings confirm that embedding ESG into PPM is no longer optional but essential for organizations seeking long-term success. Furthermore, the study emphasizes the need for standardized ESG-PPM integration models adaptable across industries. Future research should focus on developing sector-specific ESG KPI taxonomies, leveraging digital technologies for ESG data management, and conducting cross-industry comparative studies. This paper contributes practical insights for financial institutions and broader industries aiming to align their project portfolios with global sustainability standards and foster resilient, sustainable organizations.

Keywords: ESG Principles, ESG KPIs, Project Portfolio Management, Insurance Company, Sustainability

1. Introduction

Growing interest in improving project management (PM) practices, combined with the dominance of sustainability principles and based on the triple bottom line (TBL) concept - People, Planet, and Prosperity - leads to the development of sustainable project management (SPM) by balancing economic, environmental, and social aspects. To encourage companies and other institutions to transition to sustainable business, the European Union (EU) has developed a long-term strategy that includes sustainable, inclusive, innovative, and smart business models to address all of the issues that businesses and other organizations face today (Lovrenčić Butković & Omazić, 2022). SPM involves the integration of sustainability principles throughout the project lifecycle, ensuring that projects are environmentally responsible, socially equitable, and economically viable (Mainar-Toledo, et al., 2023; Orieno et al., 2024). As organizations increasingly focus on transitioning to sustainability, a growing body of research shows the critical importance of projects in this process (Gemünden, 2016; Marcelino-Sádaba et al., 2015; Sabini et al., 2019; Silvius, 2017). This highlights the critical role of project portfolio management (PPM) in ensuring project success and driving the sustainable future of project-oriented organizations (Garcia-Bernabeu et al, 2024; Schipper and Silvius, 2018; Silvius and Marnewick, 2022), since the optimal and appropriate selection of the project portfolio may be a critical step along this approach. Creating Project Portfolio Management (PPM) into every company has a huge influence on many businesses because they are typically presented with more projects to choose from than resources to execute.

In current practice, Environmental, Social and Governance factors (ESG) has become the most widely used measurement of sustainability standards for holding firms accountable (Howard-Grenville, 2021) and emerged as key tools for businesses to evaluate their sustainable and ethical practices (Nafisa et al., 2023; Oncioiu et al., 2020). ESG criteria encompass various performance metrics related to sustainability, including environmental impact, social responsibility and governance practices (Gond & Piani, 2013). These criteria are integrated into corporate decision making as a way of aligning business operations with a broader set of environmental and social goals, besides those defined only by finance. Integrating ESG criteria into PPM is becoming a powerful approach to drive sustainability and creates lasting value for organizations and stakeholders (Gong et al., 2024; Shin et al., 2024; Vera-Burau et al., 2025). These criteria are incorporated into corporate decision-making as a means of aligning business activities with a broader set of environmental and social goals beyond those defined solely by finance (Zervoudi et al., 2025), as well as projects with the organization's sustainable goals and strategy.

Because the relationship between ESG scores and the insurance sector is a complicated field of study (Jareño et al., 2024) and has sparked increased interest in academic and corporate circles, a Croatian insurance company was chosen as the case study for this paper. The aim of this paper is to improve understanding of how to include and implement ESG principles into PPM practices, as well as optimize PPM methods as part of sustainable management in project-oriented organizations. This paper reviews the existing literature on integrating sustainability and ESG principles into PM and PPM. Based on previous research, the case study method was used to demonstrate the application of an ESG framework for PPM in a Croatian insurance company. The findings will help financial institutions improve their project portfolio management strategies.

The paper is structured as follows. After the introduction, the article reviews existing research on the integration of sustainability and ESG concepts into Project Management and Project Portfolio Management. The third section describes the research method and indicators employed in the case study. Furthermore, a full description of the observed insurance firm is provided, followed by the implementation of an ESG framework with developed ESG KPIs for each project in order to accomplish the ESG targets stated by the company. Finally, the paper summarizes major findings, emphasizing the practical implications for financial institutions seeking to align their project portfolios with ESG principles in order to improve their sustainability performance and ESG ratings.

2. Literature review

2.1 Sustainability and ESG principles in Project Management

Numerous studies on sustainability in a variety of fields, including project management, have been conducted within the past 20 years. Therefore, one of the most significant project management trends at the time is considered to be sustainable project management (SPM) (Silvius, 2017). The most thorough research on SPM was provided by Silvius and Schipper (2014), who found that there were an increasing number of articles about sustainability and project management. They also identified important "impact areas" for integrating sustainability into projects, such as risk management, portfolio management, and stakeholder management. Many future research studies have focused on the role of sustainability within the project management context (Friedrich, 2021; Khalifeh et al., 2019; Soares et al., 2024; Zakrzewska, 2022), demonstrating that the connection between sustainability and project management is deeply rooted in the shared objective of generating positive change (Shokouhi and Bachari, 2025).

It is undeniable that projects play an important role in promoting sustainable development (Marcelino-Sádaba, 2015; Toljaga-Nikolić, 2020), and that incorporating sustainability principles into project management practice results in successful project execution and management (Blak Bernat et al., 2023; Silvius et al., 2019). The relationship between project success and sustainable development has become a focus of research. Moreno-Monsalve et al. (2022) investigate this relationship, indicating that projects based on sustainable development principles tend to generate higher value. For incorporating sustainability into project management, project success must be the primary goal, and it should be a critical criterion for evaluating sustainability as a new school of thought in project management (Khalifeh et al., 2019).

Martens and Carvalho (2016) stated that while numerous studies have addressed and thoroughly researched project management and sustainability, the topic of how each of these fields interact inside a project remains. To solve this challenge, some frameworks were studied and constructed. Armenia et al. (2019) study emphasis five dimensions for the effective integration of a sustainable approach into project management processes and practices, which are: corporate policies and practices, resource management, life cycle orientation, stakeholders' engagement and organizational learning.

Increasingly method for incorporating sustainability into project management is to establish ESG principles with ESG KPIs, which can assist align projects with sustainable business strategy while balancing profitability with long-term social and environmental benefits. Till now, a small number of studies have investigated how ESG metrics could be used for evaluating projects. Shin et al. (2024) examined sustainability trends and identified the important subcategories that mainly affect ESG performance of project-driven companies, whereas Gong et al. (2024) developed a framework for traceable ESG data management within construction projects. Savković (2024) investigated the impact of ESG criteria on project resilience, defined as the ability of a project to anticipate, adapt to, and recover from disruptions. According to Vera-Burau et al. (2025), who investigated the use of ESG criteria as a strategy to make mining projects sustainable, incorporating environmental, social, and governance (ESG) variables into project assessments is critical to ensuring short and long-term acceptance by the various stakeholders involved, and failing to do so can put at risk a project's sustainability.

2.2 Sustainability and ESG principles in Project Portfolio Management (PPM)

Given that projects within organizations contribute to reaching sustainability criteria, project portfolio management should play an essential role in helping organizations achieve their sustainability objectives and strategies. The optimal and appropriate selection of the project portfolio may be a critical step along this approach.

While there have been many discussions surrounding portfolio theory, there is currently a lack of framework which integrates sustainability into construction project portfolio management (Siew, 2016). Schipper and Silvius (2018) developed a framework for sustainability in project portfolio management that identified three categories of impact of sustainability in project portfolio management: "positional", "process" and "technical". Silvius and Marnewick (2022) developed a conceptual framework for the interlinking practices that link the integration of sustainability in organizational strategy, project portfolio management and project management, which is based on three dimensions of interlinkages: impact – process – competence. Garcia-Bernabeu et al. (2024) presented a framework for multi-objective optimization to integrate the ESG criteria to reflect the investors' preferences in the optimal portfolio allocation.

Most of the work on the importance of ESG in PPM focusses on investment strategies (Berg et al., 2024; Gong et al., 2024; Wei and Zeng, 2025) which are based on sustainable investments (SI) (Folqué et al., 2021). By integrating ESG criteria into risk analysis, investment strategies are harmonized with long-term sustainability goals, helping insurers mitigate losses and seize value creation opportunities (Jareño et al., 2024). According to Chen et al. (2023), an increasing number of investors are investigating how ESG can improve the current investment system and incorporating corporate ESG performance into their investment portfolios, as well as conducting empirical and theoretical research on the performance of ESG strategies. Wen et al. (2025) developed an active portfolio model that takes into account company ESG ratings and investigated the impact of ESG information on portfolio performance. Berg et al. (2024) investigated the risk-reward characteristics of portfolios and discovered that combining individual ESG ratings increases portfolio performance.

3. Methodology

This exploratory research employs a qualitative approach, because the objective is to use information gained from the perspectives of the project managers and apply them into developed ESG framework for

PPM in insurance companies. For this purpose, the case study method (Eisenhardt and Graebner, 2007; Yin, 2014) was used in this paper.

The ESG framework was developed based on Ivandić Vidović et al. (2025) work presented at the 13th IPMA Research Conference within financial institution, majority from insurance companies. The findings suggest that while financial institutions recognize the importance of ESG, implementation remains inconsistent across project portfolios. Furthermore, the results show that environmental, social, and governance aspects all contribute equally to a company's success, with the most significant challenge to ESG integration being the difficulty in identifying ESG Key Performance Indicators (KPIs), followed by a lack of training and budget restrictions. These findings imply that financial organizations should create standardized ESG indicators, invest in employee training, and deploy dedicated resources to overcome these barriers. Accordingly, for the illustrative case study, one Croatian insurance company was chosen to demonstrate how ESG concepts and ESG KPIs could be implemented among their project portfolio.

4. Case-study: ESG–PPM Integration in a Croatian Insurance Company

Triglav Osiguranje d.d. is part of the Triglav Group, the leading insurance group in the Adria region and one of the leading in Southeast Europe, with a credit rating of “A” and stable mid-term outlook (according to Standard & Poor’s Global Ratings). The Triglav Group operates in seven markets across six countries where its member companies are active (Slovenia, Croatia, Serbia, Bosnia and Herzegovina, Montenegro, and North Macedonia), as well as in a broader international context through partnerships with foreign brokerage and insurance/reinsurance agencies.

The Group’s core strategic activity is insurance. Triglav Osiguranje d.d. Zagreb (hereinafter: the Company) is an insurance company that, through its legal predecessors, has been present in the Croatian insurance market since 1967. With over fifty years of tradition, it rightfully holds the reputation of one of the oldest insurance companies in Croatia.

The Company’s mission is to build a safer future, guided by three core values that shape its everyday operations, customer relationships, and environmental responsibility: Engagement, Simplicity, and Reliability.

The Company’s vision is to provide the best customer experience in the field of insurance. This vision is realized through:

- Expertise
- Effective risk management
- Sustainable business practices

These principles are embedded in the design and delivery of all insurance products, which are developed with a deep understanding of future trends and evolving client needs.

Aligned with the Triglav Group’s sustainability strategy, the Company integrates sustainability into all aspects of its operations across three key dimensions (Triglav Group, 2023A):

- Environmental factors – addressing carbon footprint, resource consumption, energy efficiency, climate risk, water and waste management, and biodiversity protection.
- Social factors – promoting responsibility toward employees, clients, and suppliers; ensuring diversity, equity, and inclusion; respecting human rights; and contributing positively to local and global communities.

- Governance factors – upholding ethical corporate governance, zero tolerance for corruption and bribery, strong risk management, business transparency, responsible tax policy, and diversity in leadership structures.

This integrated approach not only strengthens the Company's market position, but also ensures long-term value creation, enhanced trust, and a meaningful contribution to sustainable development.

The operationalization of the overall vision, strategy, strategic goals, and strategic initiatives are implemented through the Company's Project Portfolio. Through the Project Portfolio, strategic initiatives are transformed into projects, and the central PMO office manages and coordinates project activities and allocates limited resources efficiently.

All employees in the Company can initiate or nominate projects for the Portfolio, including detailed content and financial analysis. Project nominations are typically conducted once a year, aligned with the definition of the business strategy and/or business planning, but may also occur throughout the year in response to new market opportunities, risks, regulatory requirements, or other factors.

When nominating a project for inclusion in the Portfolio, along with the Project Charter, a completed template for calculating financial indicators over a five-year period must be submitted for each nominated project (except for regulatory projects).

On an annual basis, the Company defines ESG KPIs with target values for each KPI (expressed as a % change) described in Table 1. The ESG manager submits these defined ESG KPIs and goals to the PMO each year.

Table 1 Company ESG KPIs 2025 (part of the ESG KPIs)

ID	ESG KPIs 2025	Goal	ESG KPI contribution in each Project (in %)
ESG 01	Reduce office paper consumption per employee	10%-50%	
ESG 02	Increase the share of e-vehicles and hybrids in the vehicle fleet	Min 2%	
ESG 03	Reduce energy consumption per employee	5%-15%	
ESG 04	Reduce waste generated per employee	5%-15%	

When nominating a project, in addition to the project charter and financial indicator calculation (Cost/Benefit analysis), it is necessary to assess the impact of specific project activities on achieving ESG KPIs through a form that quantifies the current state and the post-implementation state for each KPI. Based on the provided data, the project's contribution to achieving each ESG target is calculated.

Evaluation of ESG KPIs is one of the criteria for selecting and prioritizing projects in the Project Portfolio.

This process establishes a transparent and strong system of awareness regarding sustainable development, both within the organization and in the environment in which it operates and lives.

All employees of the Company are directly or indirectly involved in the implementation of ESG principles and their related KPIs. In this way, a high level of awareness was achieved regarding the need to reach the targeted ESG goals, as well as a general approach to the application of ESG principles within the organization. Prior to this model, there were isolated ESG projects that the organization did not recognize, nor were the employees familiar with ESG topics.

The following Fig. 1 shows the ESG KPIs and the impact of projects on achieving the ESG goals set by the Company through PPM.

PROJECT PORTFOLIO 2025				ESG KPI 2025							
Project ID	Project	Program	Project goals	Reduce office paper consumption per employee (target: 10%-50%) No of package Decrease by:	ESG KPI contribution in %	Increase the share of e-vehicles and hybrids in the fleet (goal: min 2%) No of e-vehicle Increase by:	ESG KPI contribution in %	Reduce energy consumption per employee (target: 5%-15%) in kW Decrease by:	ESG KPI contribution in %	Reduce waste generated per employee (target: 5%-15%) in kg Decrease by:	ESG KPI contribution in %
CX-03	**Improvement of mobile applications i.Triglav in TOZG – phase II**	Customer experience	Business profitability Reduction of business costs - travel expenses, shipping costs,costs of sending reminders, office supplies Reduction of cost quota	3,00	12%						
TR-29	**AI implementation in claims management processes**	Organizational and operational excellence	Speeding up the compensation process Proposal for determining the basis for claims by an AI agent reduction of cost quota; reduction of FTE Achieving ESG goals Reduction of cost quota and claim quota	3,00	7%			2.500,00	10%	129,00	11%
RP-06	**Product redesign - Auto liability**	Product development	Product and process simplification, Achieving ESG goals by digitalization of products and process Reduction of cost quota	929,00	15,18%						

Fig. 1 Part of Triglav Project Portfolio 2025 - the ESG KPIs and the impact of projects on achieving the ESG goals

After the implementation of each project, the Portfolio, Program, and Project Development Manager, in cooperation with Controlling, monitors the results defined as objectives at the time of project nomination and reports to the Management Board on a monthly basis via the Project Status Report.

The Company's operations, like the entire insurance industry, are subject to complex and strict regulatory requirements and oversight. For this reason, the Company aims to maintain a strong and reliable corporate governance system with an emphasis on risk management, complying with legal standards and good business practices. Given the increasing regulatory demands of the European Union, business compliance is a crucial component for long-term, sustainable success.

The Company's ESG rating in Croatia has significantly improved thanks to its integrated approach to ESG principles and project management.

Benefits of this approach include:

- Increased long-term company value
- Enhanced risk management
- Support for sustainable growth and corporate social responsibility
- Improved decision-making and prioritization
- Positive brand image and reputation

Last year, Ivandić Vidović and Škunca (2024) presented ESG-related projects within the Company and introduced the results of the first national-level ESG rating assessment, which demonstrated a very good outcome. A baseline was established, and the target set for 2025 is for the Company to attain the leading position on the ESG rating list of insurance companies in the Republic of Croatia. There is strong confidence that the integration of ESG principles and Project Portfolio Management (PPM) will significantly contribute to the achievement of this objective.

In addition, at the beginning of this year, Ivandić Vidović et al. (2025) conducted a study on the integration of ESG principles and Project Portfolio Management (PPM) within the Croatian financial market, with the findings revealing highly interesting results. Taking all of this into consideration, the integration of ESG and PPM is considered more than necessary in the forthcoming period, not only within financial institutions but across all industries, in order to ensure that ESG is recognized, further developed, and contributes to achieving the goals set by international efforts to create a sustainable world.

5. Discussion

This study provides evidence that the integration of ESG principles into Project Portfolio Management (PPM) serves as a critical mechanism for advancing organizational sustainability and improving ESG ratings. The literature review reveals that while sustainability and ESG principles are gaining recognition within project management and portfolio governance, practical application models remain scarce. The case study demonstrates that embedding ESG KPIs into portfolio governance contributes to measurable benefits, including enhanced corporate reputation, improved decision-making processes, and stronger alignment with long-term sustainability strategies.

However, several restrictions and limitations should be acknowledged. First, the study is based on a single case from the insurance industry, which limits the transferability of results to other sectors. The findings may therefore not fully reflect the diversity of ESG integration practices across different industries or organizational contexts. Second, the analysis relies heavily on qualitative data, which provides depth of understanding but limits the ability to generalize results statistically. Lastly, ESG practices remain dynamic, meaning that the findings reflect a particular stage of organizational maturity and may evolve over time.

Future research should build upon these insights to expand both scope and depth. Comparative studies across industries would provide valuable benchmarks and highlight context-specific enablers and barriers. The development of sector-specific ESG KPI taxonomies would help organizations measure, report, and compare their performance more systematically. Furthermore, there is a clear need to explore the role of digital technologies—such as artificial intelligence, blockchain, and big data analytics—in automating ESG data collection and management within project portfolios. Longitudinal studies could also assess how ESG integration influences project and portfolio performance over extended periods, thereby strengthening the empirical foundation for ESG-driven governance models.

6. Conclusion and Outlook

The conducted research confirms that systematic integration of ESG principles into PPM is no longer an option but a necessity for organizations seeking resilience, competitiveness, and societal legitimacy. By incorporating ESG KPIs into portfolio governance, organizations can ensure that sustainability objectives are operationalized through concrete projects with measurable outcomes. The review of the existing literature clearly indicates a growing recognition of sustainability and ESG principles within the fields of project management and project portfolio management (PPM). Nevertheless, the literature reveals that, despite significant theoretical advancements, practical models for integrating ESG principles into PPM across industries remain underdeveloped.

The findings of the study, based on the case analysis of a Croatian insurance company, demonstrate that a structured approach to ESG integration — through the establishment of ESG KPIs and their embedding into portfolio governance — can lead to tangible benefits, including improved ESG ratings, enhanced corporate reputation, and stronger alignment with international sustainability efforts. These insights confirm that systematic integration of ESG principles is no longer optional but essential for organizations seeking long-term viability and societal relevance. These findings clearly emphasize that ESG principles must not be treated as isolated initiatives but should be systematically embedded into organizational strategies and operational frameworks across sectors. The integration of ESG with Project Portfolio Management (PPM) offers a practical and efficient pathway to ensure that sustainability objectives are translated into actionable projects with measurable outcomes. For researchers, the findings highlight the urgent need to design standardized frameworks that are adaptable across industries and organizational contexts.

Looking forward, ESG integration in PPM is expected to become a cornerstone of sustainable business models across diverse sectors. Organizations that develop robust ESG-PPM integration frameworks, supported by innovative technologies and sector-specific KPIs, will be better positioned to achieve their sustainability targets. Beyond improving organizational performance, such practices will play a pivotal role in advancing global sustainability agendas, positioning PPM as a strategic driver of resilience and long-term value creation. Moreover, recent studies suggest that the need for ESG and PPM integration extends beyond financial institutions and should be considered essential across all industries to align with global sustainability goals. Future research should focus on developing standardized frameworks and practical tools for cross-sector ESG-PPM integration, thus enabling organizations to systematically translate sustainability objectives into operational success and contribute meaningfully to the creation of a sustainable future.

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