Mainstreaming the Principles for Sustainable Insurance (PSI)

in the Asian Insurance Industry

by

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This study examines the dissemination and practical implementation of the Principles for Sustainable Insurance (PSI) within the Asian insurance industry. While insurance companies and supervisory authorities across the region generally recognise the conceptual value of the PSI as a global sustainability framework, its integration into core business operations remains limited. This study investigates how sustainability literacy, regulatory support and corporate governance culture influence the transition from symbolic adoption to practical implementation of PSI. The study is grounded in a questionnaire survey of 47 senior insurance regulators and industry professionals from 15 Asian countries and regions, supported by a detailed review of sustainability-related insurance regulations.

The findings indicate that a lack of organisational sustainability literacy limits the ability to translate PSI principles into practices. Sustainability regulation also varies significantly across Asian countries and regions. The study shows that insurance companies are more willing to adopt the PSI with clearer sustainability regulations. Whether a corporate governance culture leans towards the agency or the stakeholder theory also influences the adoption of PSI. While insurance companies in Asia tend to prioritise shareholder value and short-term performance, supervisory authorities adopt a more stakeholder-focused perspective.

This survey reveals a strong demand among Asian insurance companies for practical, implementation-focused PSI guidance, particularly in the areas of risk management and underwriting, product and service development, invest management and corporate strategy. Sustainability is often interpreted from the perspective of economic resilience and business continuation rather than as a comprehensive ESG framework, highlighting the importance of regional context. Based on these findings, this study recommends that the PSI Secretariat strengthen implementation support mechanisms, invest in improving sustainability literacy, and work closely with regulators to develop region-specific approaches tailored to the conditions of the Asian market.

Keywords: sustainable insurance, PSI, ESG, Asia, corporate governance culture, sustainability literacy, regulation

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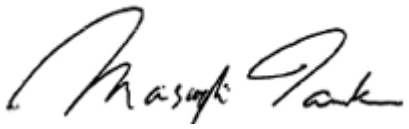

Signed,

Masayuki Tanaka

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List of Abbreviations

CSRD	Corporate Sustainability Reporting Directive
EC	European Commission
EIOPA	European Insurance and Occupational Pensions Authority
ESG	Environmental, Social, and Governance
ESRS	European Sustainability Reporting Standards
EU	European Union
FSB	Financial Stability Board
GHG	Greenhouse Gas
GRI	Global Reporting Initiative
IAIS	International Association of Insurance Supervisors
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards
ISSB	International Sustainability Standards Board
IPCC	Intergovernmental Panel on Climate Change
NZAOA	Net-Zero Asset Owner Alliance
NZIA	Net-Zero Insurance Alliance
PRB	Principles for Responsible Banking
PRI	Principles for Responsible Investment
PSI	Principles for Sustainable Insurance
SDG	Sustainable Development Goals
TCFD	Task Force on Climate-related Financial Disclosures
TNFD	Task Force on Nature-related Financial Disclosures
UNEP FI	United Nations Environment Programme Finance Initiative
V20	Vulnerable Twenty Group of Finance Ministers

1. Introduction: Background and Objectives of the Study

This study focuses on the key challenge of whether the insurance industry can maintain its sustainability amidst the escalating socio-economic disruption caused by global warming and the loss of biodiversity, including rising health problems, the spread of diseases, increasing natural catastrophe losses, and growing liability risks. Sustainability is not only the necessities for insurance business but responsibilities for the insurance industry to fulfill its public and social obligations. Insurance products have historically complemented social security systems by providing protection against risks that threaten people's livelihoods, health and financial stability. Accordingly, public society itself needs to be sustainable in order for the insurance industry to continue providing insurance services and fulfilling its responsibilities to society.

As the Earth approaches ecological boundaries, social and environmental stability appears to be entering a serious state. The most recent assessment of planetary boundaries indicates that the Earth system is already under extremely unstable conditions. Six out of the nine planetary boundaries have transgressed their thresholds and are reported to be moving towards potentially irreversible tipping points (Rockström et al., 2024). Climate change, biodiversity loss, and environmental pollution are no longer abstract risks; they are directly affecting people's livelihoods. Typhoons, floods, droughts, sea-level rise, water scarcity, and

the spread of infectious diseases have been intensifying and causing significant human and economic impacts, including large-scale displacement and adverse health effects. Asia has been reported to be the most severely affected and damaged region. Under these circumstances, societal expectations have intensified that these substantial risks must be covered through insurance schemes (UNEP FI, 2023a).

It has been increasingly expected by society that the insurance industry will have to play a leading role in closing the widening protection gap between economic losses and insurance coverage for those losses. The insurance industry has two major roles in society: risk undertaker and institutional investor. As an investor, insurers influence the allocation of capital that has been accumulated through policyholders' premiums over the long term. Insurers can integrate Environmental, Social, and Governance (ESG) considerations into management decisions and expand their ESG or impact investments to help address social and environmental issues in society. Insurers are expected to shift their assets for ESG purposes to help reduce environmental and social damage and to strengthen society's capacity for resilience (Stricker et al., 2022).

Integrating ESG principles into management strategies and decision-making has become imperative for the insurance industry to ensure the future sustainability of the sector. The incorporation of ESG criteria into product development, investment strategies, and corporate governance has likewise come to be recognised as a strategic necessity. Such actions

include, for example, designing insurance products that cover losses arising from climate-related disasters, as well as undertaking long-term ESG investments aimed at sustainable development, including investments in renewable energy projects (Stricker et al., 2022).

The insurance sector is increasingly expected by society to create innovation in insurance mechanisms in response to climate change and rapidly changing societal needs. Insurers need to liaise with local communities in order to reduce the risks arising from natural disasters and to promote inclusive insurance. There has also been growing attention to global governance frameworks in relation to ESG-related insurance services. In this context, the Principles for Sustainable Insurance (PSI) have attracted particular attention as the sole international standard aimed at aligning current practices in the insurance sector with the Sustainable Development Goals (SDGs), including a broad range of sustainability objectives (Bataller-Grau et al., 2025).

The PSI was launched by the United Nations Environment Programme Finance Initiative (UNEP FI) at the 2012 United Nations Conference on Sustainable Development (Rio+20) (UNEP FI, 2012). The PSI is a global initiative aimed at mainstreaming sustainable practices across the entire insurance value chain. It provides a comprehensive framework for addressing ESG risks and opportunities through product development, risk management, stakeholder engagement and corporate strategy.

Although the PSI is recognised as the largest sustainability-focused initiative in the global insurance industry, its actual uptake remains relatively limited. As of 6 April 2026, PSI has 170 signatory companies and 112 supporting institutions registered worldwide. Of these, 92 signatory companies and 49 supporting institutions are based in Europe, with signatory companies spread across 22 countries and supporting institutions across 13 countries. In contrast, there are only 24 signatory companies and 11 supporting institutions from Asia; the signatory companies are distributed across eight countries and regions—China, Japan, Malaysia, Pakistan, the Philippines, Singapore, South Korea and the Hong Kong Special Administrative Region of China —while the supporting institutions are distributed across six countries and regions (UNEP FI, 2026).

UNEP and UNEP FI categorise the Asian region as Asia-Pacific, and the official figures provided by the PSI follow this categorisation. However, this study focuses specifically on Asia and therefore deducts the figures for Australia and New Zealand from the Asia-Pacific data in order to derive Asia-specific figures.

This underrepresentation of the PSI in Asia is particularly striking when compared with the size of the region's insurance market. Asia accounts for 32.4% of global insurance premium income, surpassing Europe's share of 28.8% (Swiss Re Institute, 2019). In terms of greenhouse gas (GHG) emissions, Asia-Pacific region contributes approximately half of global emissions (IPCC, 2023). Even if Australia and New Zealand are excluded, Asia is responsible

for approximately 47–48% of global emissions, which clearly indicates that the region contributes significantly to global warming and therefore requires close attention to both local and global sustainability challenges (Figure 1).

Figure 1

Comparison of Europe and Asia in PSI Participation, Insurance Premiums, and GHG Emissions

The PSI constitutes a global framework designed to integrate ESG challenges into the management decisions of insurance companies. Through the application of PSI, the insurance sector is able to recognise contemporary social and environmental issues, as well as its responsibilities in addressing these issues, including GHG emissions.

In light of the current lack of popularity of PSI in Asia, this study aims to examine the fundamental reasons that have hindered the widespread adoption of PSI across the region and to identify possible solutions to promote the framework. By combining a literature review

with questionnaire surveys, this study seeks to clarify the extent to which insurance regulators and insurance companies recognise the value of PSI, understand its benefits, and perceive the practical barriers to its adoption.

Based on the research findings, this study will formulate practical recommendations for the PSI Secretariat, with the objective of improving the accessibility and effectiveness of PSI. This research is expected to contribute to the advancement of sustainable insurance practices and to strengthen the long-term credibility of PSI and the resilience of society.

1.1 Overview of the PSI Code of Conduct

Before moving on to the literature review, an overview of the PSI Code of Conduct and PSI publications is necessary. The Code of Conduct is rephrased as the PSI guideline, as it defines the most fundamental and important rules of corporate behaviour.

Understanding the basic rules of PSI is vital for analysing the added value of PSI, examining the behaviour of insurers and authorities in Asia, and recommending proposals to mainstream PSI in Asia.

The PSI framework consists of four main principles that aim to integrate ESG considerations into overall business management. These principles are as follows:

1. ESG Integration – Integrate environmental, social, and governance issues into decision-making processes across all areas of business.

2. Stakeholder Engagement – Collaborate actively with stakeholders, including clients, regulators, and local communities, to advance sustainable development.
3. Societal Impact – Use the insurance industry's reach and influence to drive broader societal change and sustainability goals.
4. Transparency and Accountability – Demonstrate commitment to openness through public disclosure and responsible performance tracking.

PSI defines a uniform value chain for life insurers, general insurers and reinsurers, and uses this structure to provide concrete guidelines for each part of the value chain. Table 1 summarises the PSI Code of Conduct from the guidelines in the following nine value chains:

1. Company Strategy
2. Product and Service Development
3. Sales and Marketing
4. Risk Management and Underwriting
5. Claims Management
6. Investment Management
7. Clients and Suppliers
8. Government and Regulatory Bodies
9. Accountability and Reporting

Table 1

PSI Code of Conduct Across Value Chain Categories (Adapted from Principles for Sustainable Insurance, 2025)

Value Chain Categories	PSI Code of Conduct
Company strategy	• Establish a company strategy at the Board and executive management levels to identify, assess, manage and monitor ESG issues in business operations • Dialogue with company owners on the relevance of ESG issues to company strategy • Integrate ESG issues into recruitment, training and employee engagement programmes
Product Service development	• Develop products and services which reduce risk, have a positive impact on ESG issues and encourage better risk management • Develop or support literacy programmes on risk, insurance and ESG issues
Sales and marketing	• Educate sales and marketing staff on ESG issues relevant to products and services and integrate key messages responsibly into strategies and campaigns • Make sure product and service coverage, benefits and costs are relevant and clearly explained and understood
Risk management and underwriting	• Establish processes to identify and assess ESG issues inherent in the portfolio and be aware of potential ESG-related consequences of the company's transactions • Integrate ESG issues into risk management, underwriting and capital adequacy decision-making processes, including research, models, analytics, tools and metrics

Value Chain Categories	PSI Code of Conduct
Claims management	• Respond to clients quickly, fairly, sensitively and transparently at all times and make sure claims processes are clearly explained and understood • Integrate ESG issues into repairs, replacements and other claims services
Investment management	• Integrate ESG issues into investment decision-making and ownership practices (e.g. by implementing the Principles for Responsible Investment)
Clients and suppliers	• Dialogue with clients and suppliers on the benefits of managing ESG issues and the company's expectations and requirements on ESG issues • Provide clients and suppliers with information and tools that may help them manage ESG issues • Integrate ESG issues into tender and selection processes for suppliers • Encourage clients and suppliers to disclose ESG issues and to use relevant disclosure or reporting frameworks • Promote the adoption of the Principles • Support the inclusion of ESG issues in professional education and ethical standards
Government and regulatory bodies	• Support prudential policy, regulatory and legal frameworks that enable risk• Dialogue with intergovernmental and non-governmental organisations to support sustainable development by providing risk management and risk transfer expertise • Dialogue with business and industry associations to better understand and manage ESG issues across industries and geographies • Dialogue with academia and the scientific community to foster research and educational programmes

Value Chain Categories	PSI Code of Conduct
	on ESG issues • Dialogue with media to promote public awareness of ESG issues and good risk management reduction, innovation and better management of ESG issues • Dialogue with governments and regulators to develop integrated risk management approaches and risk transfer solutions
Accountability and reporting	• Assess, measure and monitor the company's progress in managing ESG issues and proactively and regularly disclose this information publicly • Participate in relevant disclosure or reporting frameworks • Dialogue with clients, regulators, rating agencies and other stakeholders to gain mutual understanding on the value of disclosure through the Principles

The PSI Code of Conduct provides systematic and practical guidelines for insurance companies to integrate ESG into their daily operations. Its distinguishing feature is that it goes beyond a mere conceptual framework, serving as a "roadmap for practice" that connects sustainability principles to concrete activities within the insurance value chain. The nine value chain segments are organized to ensure consistent integration and understanding of ESG across key departments and stakeholders, from corporate strategy to reporting.

At the strategic level, the code emphasizes the responsibility of the board of directors and management to identify, assess, manage, and incorporate ESG issues into decision-making. It also highlights the importance of developing products and services that enhance sustainability, and educating sales and marketing departments to effectively communicate the benefits and costs of ESG. Risk management and underwriting departments are required to reflect ESG in risk assessment, capital decisions, and portfolio management, and are expected to implement environmentally and socially responsible practices in investment management.

Furthermore, this code of conduct emphasizes the importance of collaboration with customers, suppliers, governments, and regulatory authorities. The initiative encourages insurance companies to promote ESG understanding among their clients,

collaborate with public and international organizations, and contribute to raising sustainability awareness throughout society. In addition, it aims to strengthen accountability and increase stakeholder trust by requiring transparent information disclosure and regular reporting. By adopting these principles, insurance companies can more deeply integrate sustainability into their operations while simultaneously benefiting from the international network, expertise, and access to policy dialogue provided by UNEP FI. These factors also motivate companies to become PSI signatories and supporting organizations.

1.2 Overview of the PSI Publications

PSI also offers a rich repository of global publications that analyze how insurers are addressing pressing issues like climate change, biodiversity loss, pollution, heritage protection, and ocean conservation. These publications are accessible through the insurance section of the United Nations Environment Programme Finance Initiative (UNEP FI) website (UNEP FI, n.d.). This section provides thematic publications addressing pressing issues such as climate change, biodiversity loss, pollution, cultural heritage protection, and marine conservation. As of April 6, 2026, 28 insurance-related PSI documents published since 2019 are available, but most of the earlier materials are currently inaccessible. These publications introduce ESG challenges faced by countries

around the world and show examples of how the insurance industry is contributing to solving these challenges. There are also many documents that explain scientific findings and evidence-based discoveries from international organizations in a relatively easy-to-understand manner for the insurance industry. Such scientific discoveries may not be utilized in management strategies in the insurance industry if they are not understood, so these detailed explanations are valuable for management and should be understood. In addition, the UNEP FI annual activity report is also included in the literature, introducing initiatives related to climate, nature, pollution, human rights, and transition finance, and can be used to organize the international trends in sustainable finance.

Table 2 compiles and analyzes these 28 publications, summarizing their content and mapping each document to the relevant SDG targets and PSI value chain components they address.

Table 2

PSI Publications

Title of Publications	Year	Main points	Coverage of SDGs	Coverage of Value Chain
Just Transition Finance: Case Studies from Banking and Insurance From pathways to practice	2026	This report outlines how banks and insurance companies can incorporate just transition principles into their strategies, products and customer support. It summarises practices relating to social inclusion and transition finance through case studies by region and industry.	Goal 1: No Poverty Goal 3: Good Health and Well-being Goal 8: Decent Work and Economic Growth Goal 10: Reduced Inequalities Goal 13: Climate Action Goal 17: Partnerships for the Goals	①, ②, ④, ⑦, ⑧

Title of Publications	Year	Main points	Coverage of SDGs	Coverage of Value Chain
A Total Balance Sheet Transition A holistic transition plan guide linking the underwriting and investment portfolios of insurers and reinsurers	2025	This report presents the Total Balance Sheet approach, which integrates underwriting and investment. Based on six principles, it promotes a company-wide climate transition strategy and consistent decision-making and governance.	Goal 7: Affordable and Clean Energy Goal 8: Decent Work and Economic Growth Goal 12: Responsible Consumption and Production Goal 13: Climate Action	①, ②, ④, ⑥, ⑨
Breaking Ground Getting practical with nature-related assessments for insurers	2025	This report explains how to assess nature-related dependencies and risks in underwriting using TNFD LEAP approach. Focusing on non-life insurance, it outlines practical procedures and provides case studies.	Goal 3: Good Health and Well-being Goal 6: Clean Water and Sanitation Goal 12: Responsible Consumption and Production Goal 14: Life Below Water Goal 15: Life on Land	①, ②, ④, ⑤, ⑨

Title of Publications	Year	Main points	Coverage of SDGs	Coverage of Value Chain
Underwriting the Transition A deep-dive transition plan guide for insurance and reinsurance underwriting portfolios	2025	This guide supports the development and disclosure of transition plans that integrate net-zero, just transition and nature conservation across the entire value chain, from underwriting to claims settlement.	Goal 7: Affordable and Clean Energy Goal 12: Responsible Consumption and Production Goal 13: Climate Action Goal 17: Partnerships for the Goals	①, ②, ④, ⑤, ⑧
Rooted in Risk Framing nature-related assessments for insurers	2025	This report organises dependencies on, impacts of and risks related to nature from both life and non-life insurance perspectives. It provides a foundation for nature risk assessment within the insurance value chain.	Goal 3: Good Health and Well-being Goal 6: Clean Water and Sanitation Goal 12: Responsible Consumption and Production Goal 14: Life Below Water Goal 15: Life on Land	①, ④, ⑤, ⑨

Title of Publications	Year	Main points	Coverage of SDGs	Coverage of Value Chain
UNEP FI 2024 Annual Overview	2024	This overview summarises UNEP FI's key activities in 2024. It covers climate, nature, human rights and transition finance, and highlights progress in sustainable finance, including the PRB, PSI and NZAOA.	Goal 3: Good Health and Well-being Goal 7: Affordable and Clean Energy Goal 8: Decent Work and Economic Growth Goal 13: Climate Action Goal 17: Partnerships for the Goals	①, ④, ⑥, ⑧, ⑨
UNEP FI review 2023 and 2024	2024	This overview summarises achievements in responsible banking, sustainable insurance and the net-zero sector. It provides a comprehensive overview of progress in capacity building, policy dialogue and international collaboration.	Goal 3: Good Health and Well-being Goal 4: Quality Education Goal 8: Decent Work and Economic Growth Goal 10: Reduced Inequalities Goal 13: Climate Action	①, ④, ⑥, ⑧, ⑨

Title of Publications	Year	Main points	Coverage of SDGs	Coverage of Value Chain
Insuring a resilient nature-positive future: Global guide for insurers on setting priority actions for nature	2024	This global guide outlines the insurance sector's role in managing nature-related risks and protecting biodiversity. It emphasizes strategies to address nature loss, strengthen economic resilience, and integrate nature-related considerations across the insurance value chain.	Goal 3 : Good health and Well-being Goal 14: Life Below Water, Goal 15: Life on Land	①, ②, ④,⑥, ⑦,⑧
Closing the Gap: The emerging global agenda of transition plans and the need for insurance-specific guidance	2024	This report highlights the need for insurance-specific guidance on transition plans, emphasizing the industry's role in tackling climate challenges, enhancing transparency, and aligning strategies to support sustainable development through effective risk management.	Goal 1: No Poverty Goal 3 : Good health and Well-being Goal 7： Affordable and Clean Energy Goal 8: Decent Work and Economic Growth, Goal 13: Climate Action Goal 14: Life Below Water, Goal 15: Life on Land	①, ②, ③ ④,⑤,⑥, ⑦,⑧

Title of Publications	Year	Main points	Coverage of SDGs	Coverage of Value Chain
Construindo Seguros Para Transição Climática Insuring the climate transition in Brazil	2024	This report presents tools to visualise flood and heatwave risks. Aligned with the TCFD and insurance regulations, it strengthens the insurance sector's climate response through region-specific vulnerability analyses.	Goal 11: Sustainable Cities and Communities Goal 12: Responsible Consumption and Production Goal 13: Climate Action Goal 17: Partnerships for the Goals	①, ④, ⑤, ⑧
Just Transition Finance: Pathways for Banking and Insurance	2023	This report explores the role of banks and insurers in supporting a just transition, emphasizing finance's importance in balancing climate action with social equity. It discusses strategies to help workers and communities adapt to a low-carbon economy and achieve a sustainable, inclusive future.	Goal 1: No Poverty Goal 3 : Good health and Well-being Goal 8: Decent Work and Economic Growth, Goal 10: Reduced Inequalities	①, ②, ⑥, ⑦,⑧, ⑨

Title of Publications	Year	Main points	Coverage of SDGs	Coverage of Value Chain
Nature-Positive Insurance: Evolving Thinking and Practices	2023	This report explores innovative solutions for managing nature-related risks and protecting biodiversity. It highlights the insurance sector's role in supporting global biodiversity goals and transitioning to a nature-positive economy, with a focus on risk management and ecosystem preservation.	Goal 3 : Good health and Well-being Goal 14: Life Below Water, Goal 15: Life on Land	①, ②, ④,⑥, ⑦,⑧
Health is Our Greatest Wealth: How life & health insurers can drive better health outcomes and address the protection gap	2023	This report examines the role of life and health insurers in improving health outcomes and closing protection gaps. Developed under UNEP's PSI Initiative, it highlights strategies for promoting health and addressing social challenges through preventative care and health management programs.	Goal 1: No Poverty Goal 3: Good Health and Well-being Goal 4 : Quality Education Goal 10: Reduced Inequalities Goal 17:Partnerships for the Goals	①,②,④, ⑤,⑦,⑧

Title of Publications	Year	Main points	Coverage of SDGs	Coverage of Value Chain
Closing the protection gap in Canada A social sustainability framework for the Canadian life and health insurance industry	2023	This report presents a framework to address inequalities caused by climate change. It proposes measures to narrow protection gaps through health impacts, support for vulnerable groups, and government collaboration.	Goal 1: No Poverty Goal 3: Good Health and Well-being Goal 8: Decent Work and Economic Growth Goal 10: Reduced Inequalities Goal 11: Sustainable Cities and Communities	①, ②, ⑤, ⑦, ⑧
NZIA Target-Setting Protocol Version 1.0	2023	This protocol by the Net-Zero Insurance Alliance provides guidelines for measuring, standardizing, and comparing science-based decarbonization targets in insurance portfolios. It aims to enhance transparency, accountability, and support a sustainable transition with detailed requirements for target-setting, disclosure, and reporting.	Goal 13: Climate Action	①, ④, ⑥
Key Takeaways from the UNEP FI Leadership Council Meeting 2022	2022	This summary highlights key discussions from a meeting on sustainable finance. It addressed aligning private finance with SDGs, preventing greenwashing, standardizing regulations, and implementing 2023 strategies for harmonizing sustainable finance frameworks across regional contexts.	Goal 17: Partnerships for the Goals	①, ⑥,⑧, ⑨

Title of Publications	Year	Main points	Coverage of SDGs	Coverage of Value Chain
Annual Overview 2021	2022	This report reviews the company's 2021 achievements, strategies, financial status, and sustainability efforts. It highlights progress in ESG initiatives while presenting financial summaries, portfolio overviews, and the company's vision for growth and a sustainable future.	Goal 7: Affordable and Clean Energy Goal 12: Responsible Consumption and Production Goal 13: Climate Action Goal 14: Life Below Water	①, ④,⑥,⑦,⑨
New risks, new opportunities: Harnessing environmental pollution liability insurance for a sustainable economy	2022	This report explores the potential of environmental pollution liability insurance to support a sustainable economy. It highlights strategies for insurers to manage pollution risks, fulfill responsibilities, and balance economic growth with environmental conservation.	Goal 11: Sustainable Cities and Communities Goal 12: Responsible Consumption and Production	④, ⑤,⑥,⑦, ⑧, ⑨

Title of Publications	Year	Main points	Coverage of SDGs	Coverage of Value Chain
Managing environmental, social and governance risks in life & health insurance business	2022	This guide is the first to address ESG risk management in life and health insurance. Developed under UNEP's PSI Initiative, it outlines methods for assessing and managing ESG risks, providing strategies for aligning insurance practices with sustainability goals across individual and group perspectives.	Goal 3: Good Health and Well-being	①, ④, ⑤,⑦, ⑨
Insuring the net-zero transition: Evolving thinking and practices	2022	This report explores evolving practices in the insurance sector to support the net-zero transition. Developed under UNEP's PSI Initiative, it highlights strategies and tools for addressing climate change, achieving net-zero goals, and building a sustainable future through effective risk management.	Goal 13: Climate Action	①, ④, ⑥,⑧
Insuring the climate transition: Enhancing the insurance industry's assessment of climate change futures	2021	This report aims to enhance the insurance sector's efforts to assess and address climate change futures. Developed under UNEP's PSI Initiative, it explores leveraging hindsight and foresight to implement TCFD recommendations and improve risk evaluation and management.	Goal 13: Climate Action	①, ④, ⑥, ⑨

Title of Publications	Year	Main points	Coverage of SDGs	Coverage of Value Chain
Using hindsight and foresight: Update from the TCFD Pilot Project for Insurers	2020	This report details UNEP's PSI Initiative progress, focusing on how insurers use past experiences and future projections to assess climate risks. It highlights strategies and tools for implementing TCFD recommendations to enhance risk evaluation and management effectively.	Goal 9: Industry, Innovation, and Infrastructure Goal 13: Climate Action	①, ④, ⑨
Beyond 'Business as Usual': Biodiversity Targets and Finance	2020	This report explores biodiversity goals and finance's role, focusing on how businesses assess and manage biodiversity risks. It analyzes the impacts of biodiversity loss, presents frameworks for financial institutions, and emphasizes integrating biodiversity conservation with the SDGs for a sustainable future.	Goal 6 Clean water and sanitation Goal 13: Climate Action Goal 14: Life Below Water, Goal 15: Life on Land	①, ④, ⑦
Managing environmental, social and governance risks in non-life insurance business	2020	This report explores biodiversity goals and the role of finance, focusing on managing biodiversity risks across industries. It examines the impacts of biodiversity loss, presents frameworks for financial institutions, and emphasizes aligning biodiversity conservation with the SDGs.	Goal 3 4 7 8 10 11 12 13 14 15	①～⑨

Title of Publications	Year	Main points	Coverage of SDGs	Coverage of Value Chain
Unwrapping the risks of plastic pollution to the insurance industry	2019	This guide by UNEP FI focuses on managing ESG risks and promoting sustainable practices in the non-life insurance sector. It provides frameworks for identifying and evaluating ESG risks, integrating them into underwriting processes, and aligning strategies with the SDGs.	Goal 3 6 11 12 14 15	①, ②,④, ⑥, ⑦,⑧
Protecting our World Heritage, insuring a sustainable future	2019	This guide by UNEP FI explores the insurance sector's role in protecting World Heritage sites and promoting sustainable development. It highlights strategies for balancing environmental conservation with economic sustainability through risk management and financing, emphasizing insurers' responsibilities in this effort.	Goal 11: Sustainable Cities and Communities	①, ④, ⑥,⑦
Risk Assessment and Control of Illegal, Unreported and Unregulated Fishing for the Marine Insurance Industry	2019	This guide by UNEP FI explores the insurance sector's role in protecting World Heritage sites and promoting sustainable development. It highlights strategies for balancing environmental conservation with economic sustainability through risk management and financing, emphasizing insurers' responsibilities in this effort.	Goal 14: Life Below Water	①, ④, ⑦,⑧, ⑨

Title of Publications	Year	Main points	Coverage of SDGs	Coverage of Value Chain
The PSI Global Resilience Project: Building Disaster-Resilient Communities	2014	This report compares the effectiveness of natural disaster countermeasures. It highlights the importance of education, early warning systems and pre-disaster investment, and outlines the insurance industry's strategies for enhancing community resilience.	Goal 1: No Poverty Goal 8: Decent Work and Economic Growth Goal 11: Sustainable Cities and Communities Goal 13: Climate Action Goal 15: Life on Land Goal 17: Partnerships for the Goals	①, ④, ⑤, ⑧

This review identifies the areas of insurance value chains and Sustainable Development Goals (SDGs) most prominently reflected in the reviewed PSI publications, while also highlighting significant thematic and operational gaps.

Table 3 provides the coverage of SDGs and the nine insurance value-chain categories across the 28 PSI publications.

Table 3

Coverage of SDG Themes and Insurance Value-Chain Components across PSI Publications (n=28)

SDG Themes (Number of Mentions)	Insurance Value-Chain Coverage (Number of Mentions)
Goal 1: No Poverty (6)	
Goal 2: Zero Hunger (0)	
Goal 3: Good Health and Well-Being (14)	
Goal 4: Quality Education (3)	
Goal 5: Gender Equality (0)	Company Strategy (27)
Goal 6: Clean Water and Sanitation (4)	Product and Service Development (12)
Goal 7: Affordable and Clean Energy (6)	Sales and Marketing (2)
Goal 8: Decent Work and Economic Growth (9)	Risk Management and Underwriting (25)
Goal 9: Industry, Innovation and Infrastructure (1)	Claims Management (11)
Goal 10: Reduced Inequalities (6)	Investment Management (16)
Goal 11: Sustainable Cities and Communities (7)	Clients and Suppliers (15)
Goal 12: Responsible Consumption and Production (9)	Government and Regulatory Bodies (18)
	Accountability and Reporting (14)
Goal 13: Climate Action (15)	
Goal 14: Life Below Water (10)	
Goal 15: Life on Land (9)	
Goal 16: Peace, Justice and Strong Institutions (0)	
Goal 17: Partnerships for the Goals (7)	

Note. Values indicate the number of PSI publications in which each SDG theme or value-chain component is substantively addressed. A single publication may cover multiple SDG themes and multiple value-chain components.

Among the SDG themes, Goal 13 (Climate Action) and Goal 3 (Good Health and Well-being) are the most frequently cited (15 and 14 times, respectively), highlighting a primary concern for climate change risks and their direct human impacts. Nature-related goals, namely "Life Below Water" (Goal 14, 10 times) and "Life on Land" (Goal 15, 9 times), also appear frequently, demonstrating a continued interest in biodiversity and ecosystem resilience. Socioeconomic aspects such as "Decent Work" (Goal 8), "Responsible Consumption" (Goal 12), and "Sustainable Cities" (Goal 11) appear 9, 9, and 7 times respectively, suggesting that emphasis on structural and economic conditions is not a major focus. In contrast, “Industry Infrastructure and Innovation” (Goal 9) are mentioned only once. Therefore, it is likely that the PSI publications prioritise risk mitigation, resilience, and social well-being over industrial development pathways.

Gender equality (Goal 5) remains significantly underemphasized, highlighting policy aspects that the PSI framework should more strongly incorporate. Clearer guidance on gender-related policy integration will be needed to promote comprehensive sustainability practices.

While insurance companies generally publish their commitments to the SDGs in their sustainability reports, the identification of materiality goals varies significantly

between organisations. Materiality goals refer to the sustainability issues that are most significant to a company's long-term value creation and stakeholder expectations, highlighting the areas where its impact is greatest and where strategic action is most needed. In practice, the identification and disclosure of these material issues are increasingly being standardised through sustainability regulations and reporting frameworks. To make PSI outputs more relevant, further engagement with industry professionals—through targeted surveys and interviews—would be beneficial in understanding which SDG-related themes they prioritise. Incorporating these insights would help ensure that future PSI publications and capacity-building activities are more practical and strategically focused.

Across all PSI publications reviewed, the coverage of the insurance value chain is broad but uneven. The most frequently discussed aspects of the value chain in PSI publications are corporate strategy and risk management and underwriting, reflecting PSI's focus on sustainability strategies in the insurance industry and risk management and underwriting, which are among the most critical functions of insurance companies.

Next, collaboration with government and regulatory bodies and investment management are frequently addressed, particularly in the context of transition planning, net-zero compliance, and regulatory harmonization. Product and service development,

and client and supplier relations receive moderate attention, primarily through guidance on inclusive insurance, fair transition financing, and environmentally conscious solutions.

In contrast, Sales and Marketing are mentioned much less frequently. It is desirable that PSI publications disseminate knowledge on marketing strategies used when offering products such as inclusive insurance and climate insurance to the market. A deeper exploration of these PSI functions would broaden the strategic scope of the PSI implementation roadmap.

This analysis clarifies the contributions of each department within the organization to sustainability goals by aligning academic and industry literature with the SDGs goals and components of the insurance value chain. Recognizing that the importance of SDGs varies among companies, future PSI recommendations should be tailored to reflect the specific priorities of insurance companies. Such contextualization will strengthen PSI's value proposition and enhance its ability to respond to the evolving landscape of global insurance and sustainability governance.

2. Literature Review

2.1. Methodology

This literature review explores the feasibility of sustainable insurance as advocated by PSI by analyzing past research that evaluates PSI and assesses its role in integrating sustainability into the insurance sector.

The primary objective is to assess the level of recognition of PSI in academic discussion and to determine its practical potential for mainstreaming sustainable practices, particularly in Asia. To pursue this goal, the review examines both the factors that promote as well as inhibit PSI adoption and analyzes the causes of the low levels of adoption observed across Asia.

The insights gained from this analysis will help create a conceptual framework to support the integration of PSI into the Asian insurance market, while also exploring its relevance to factors such as ESG literacy, regulatory readiness, and corporate governance structure. Furthermore, this review will also address how the PSI code of conduct, covering nine insurance value chains, is evaluated within the selected literature. The purpose of this step is to clarify how the PSI code of conduct is being implemented.

The methodological approach consists of three main components. First, a systematic literature search was conducted via Google Scholar following the PRISMA

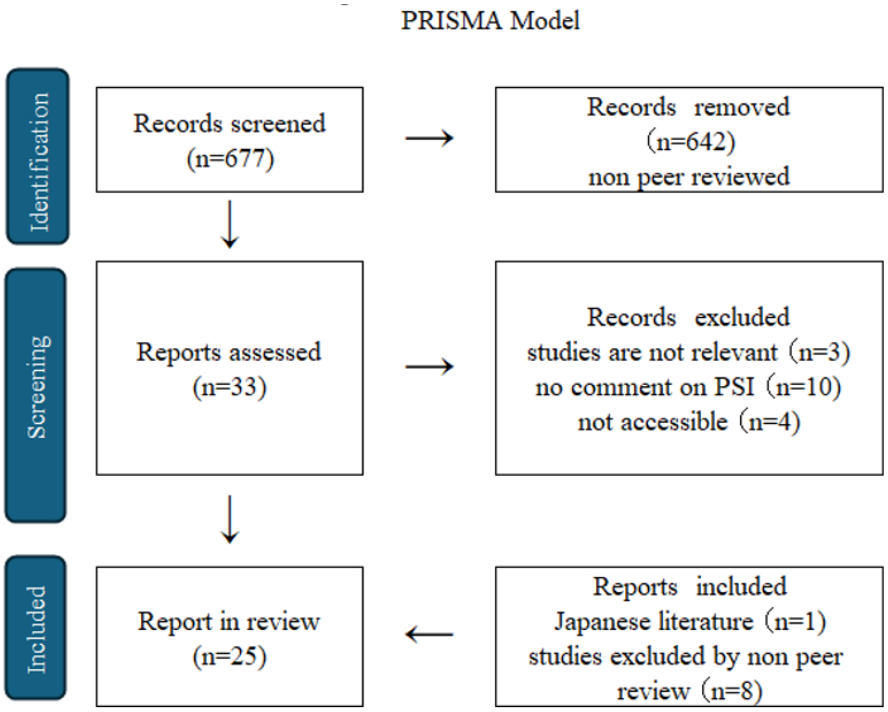
methodology, aiming to identify PSI-related variables and existing analytical gaps. Second, the challenges of PSI adoption in Asia were assessed, focusing on sustainability literacy. Third, this study compared and examined policy and regulatory systems in Europe and Asia to assess whether institutional frameworks are factors that promote or prevent the implementation of PSI.

An initial systematic literature search using the keyword *"Principles for Sustainable Insurance"* on the EBSCO academic database returned 38 publications. After filtering for full-text access, only 9 remained, and applying the peer-reviewed filter reduced this to 2. None of these made direct reference to PSI.

Following the EBSCO search, the PRISMA-based review process using Google Scholar was conducted in March 2025 (Figure 2).

Figure 2

Summary of Literature Review Process



First, 677 articles were identified through a Google Scholar search using the keyword “Principles for Sustainable Insurance.” These articles were screened in several stages to ensure relevance and academic quality.

First, non-peer-reviewed publications were excluded, resulting in 33 articles. Subsequently, articles were removed based on the following criteria: lack of relevance to PSI, absence of substantive discussion on PSI, and inaccessibility of full text.

In addition, one relevant Japanese-language literature was included, and several non-peer-reviewed which was previously excluded but substantively relevant publications were reintroduced after careful evaluation.

As a result, a final dataset of 25 articles was identified (Table 4), which were then analysed by geographical scope, publication year, and thematic focus to identify regional differences and conceptual trends.

Table 4

List of Literature Review

No.	Title	Author(s)	Geographic Scope	Year	Main Theme
1	Sustainability and the Insurance Market: Trends and Challenges	Bataller-Grau, J., Kawiński, M., & Marano, P.	Europe	2025	Insurance regulation and ESG
2	Sustainable Insurance in India: An Overview	Raza, M. D. W., Rasheed, A., & Uddin, F.	India	2022	Sustainable insurance development
3	Social and Environmental Risks Integration into Underwriting of Non-Life Insurance	Agnes, M., & Koestoer, R. H.	Indonesia	2023	ESG risk integration in underwriting
4	Current Deficiencies and Reinforcement of Institutional Pillars for Reform in the Green Insurance Market	Lee, W. Y., & Fung, D. W. H.	Hong Kong Special Administrative Region of China	2023	Green insurance reform

No.	Title	Author(s)	Geographic Scope	Year	Main Theme
5	A Systematic Literature Review on Sustainability Issues along the Value Chain in Insurance Companies and Pension Funds	Aburto Barrera, L. I., & Wagner, J.	Global	2023	Insurance value chain sustainability
6	The Intersection of Artificial Intelligence and Green and Sustainable Insurance	Cikovic, K. F., Milkovic, M., & Hajdek, M.	Global	2024	AI and sustainable insurance
7	A Systematic Review of ESG in the Insurance Industry	Sood, K., & Özen, E.	Global	2024	ESG integration
8	A Systematic Review of ESG Investing and Climate Change as a Sustainable Practice in the Insurance Industry	Goel, C., Bassi, P., & Pankaj	Global	2023	ESG investing and climate change
9	A Review of Recent Trends to Establish Nature-Related Financial Considerations	Buteică, A. C., & Huidumac-Petrescu, C. E.	Europe	2019	Nature-related finance
10	Climate Challenges and Financial Institutions	Karnowski, J., & Miśkiewicz, R.	Poland	2021	Climate risks in finance
11	The Only Constant Is Change: Opportunities and Challenges for Actuaries	Schiller, F., & Crugnola-Humbert, J.	Europe	2022	Actuaries and sustainability
12	Sustainable Financial Services: Reflection and Future Perspectives	Tuyon, J., Onyia, O. P., & Ahmi, A.	Global	2023	Sustainable finance trends
13	Climate-Driven Financial Innovations: Green Financial Tools	Zhai, X., Ji, Q., & Wu, F.	Global	2024	Green financial innovation

No.	Title	Author(s)	Geographic Scope	Year	Main Theme
14	The Contribution of the Banking and Insurance Industry to Climate Change	Wang, C. J.	Global	2024	Financial sector and climate change
15	Biodiversity and Financing: Review of Tools in the Nordic Countries	Borgman, E., Fischer Bogason, R., & Engelbrecht Hansen, A.	Nordic	2023	Biodiversity finance
16	Greening Financial Markets	Moid, S.	Global	2017	Green financial markets
17	Green Insurance: A Roadmap for Executive Management	Stricker, L., Pugnetti, C., Wagner, J., & Zeier Röschmann, A.	Europe	2022	Green insurance strategy
18	Sustainability Risks & Opportunities in the Insurance Industry	Gatzert, N., et al.	Global	2020	ESG risk and opportunity
19	Is the Insurance Industry Sustainable?	Eling, M.	Global	2024	Insurance sector sustainability
20	Sustainability and Practices of Insurance Companies	Alshadadi, M. A., & Deshmukh, P. V.	Global	2024	ESG practices in insurers
21	Principles for Sustainable Insurance: Risk Management and Value	Scordis, N. A., Suzawa, Y., Zwick, A., & Ruckner, L.	Global	2014	PSI and value creation
22	Sustainability and the Insurance Market: Trends and Challenges	Bataller-Grau, J., Kawiński, M., & Marano, P.	Europe	2025	EU insurance regulation and ESG

No.	Title	Author(s)	Geographic Scope	Year	Main Theme
23	Sustainability Risks & Opportunities in the Insurance Industry	Gatzert, N., et al.	Global	2020	Integrated ESG risk framework
24	Sustainable Development and Roles of Insurance Companies	Seki, M.	Global	2012	Foundational role of insurers in sustainability
25	Insurance Industry in the Scope of Sustainable Development	Barabanova, V. V.	Europe	2023	Insurance and sustainable development

2.2 Key Findings

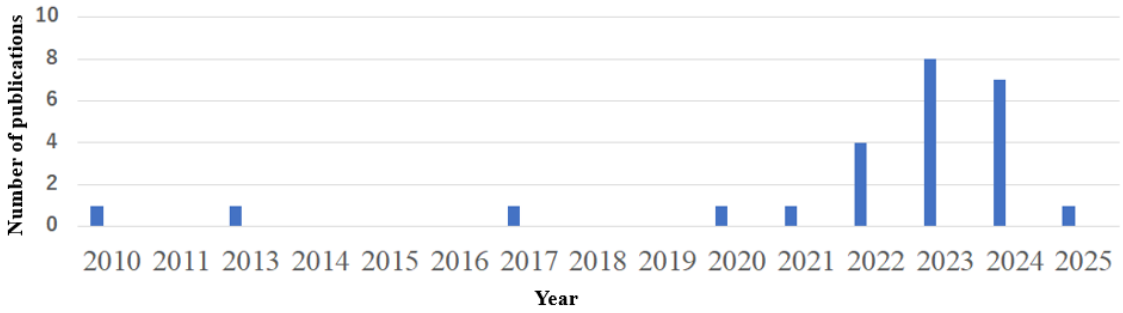
2.2.1 Overview of Geographic Scope, Publication Years and Themes

Of the 25 selected publications, geographic scope highlights the difference. 14 publications from a global scope, eight from Europe, and only three from Asia—namely India, Indonesia, and Hong Kong Special Administrative Region of China . This marks research bias toward global and European perspectives, with significantly limited attention within Asian markets.

The distribution by publication year is as follows (Figure 3):

Figure 3

Years of Publications of the Reviewed Literature

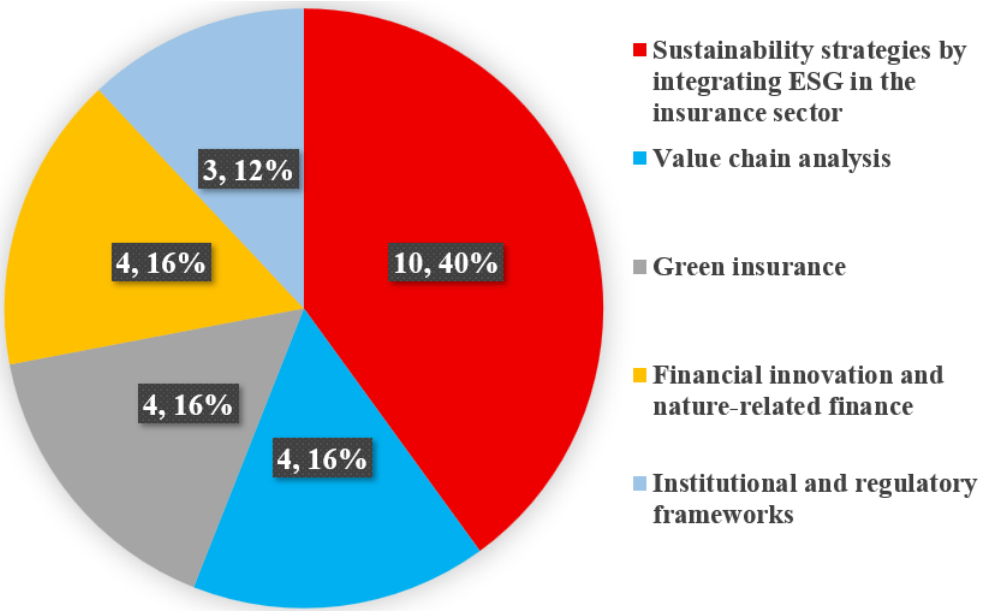


Between 2010 and 2021, PSI-related publications appeared at irregular intervals. In each of the year, 2010, 2014, 2017, 2020, and 2021, only one study was published. Academic attention on PSI increased, with four publications appeared in 2022, eight in 2023, and seven in 2024, followed by one in 2025. This upward trend from year 2022 to 2024 shows a notable rise in academic interest for PSI. The only one publication in 2025 reflects the timing of the literature review, which was conducted in March 2025. (Even after further investigation, the number of publications remains limited, with only three publications identified in 2025 and just one publication in 2026 (as of 13 April 2026).)

As for the thematic classification these 25 studies consist of five key themes: ten studies focus sustainability strategies through ESG integration; four focus value chain dynamics; another four examine green insurance practices; four analyse financial innovation and nature-related finance; and three explore institutional and regulatory frameworks shaping the insurance landscape as is illustrated in Figure 4.

Figure 4

Thematic Classification of the PSI Literature

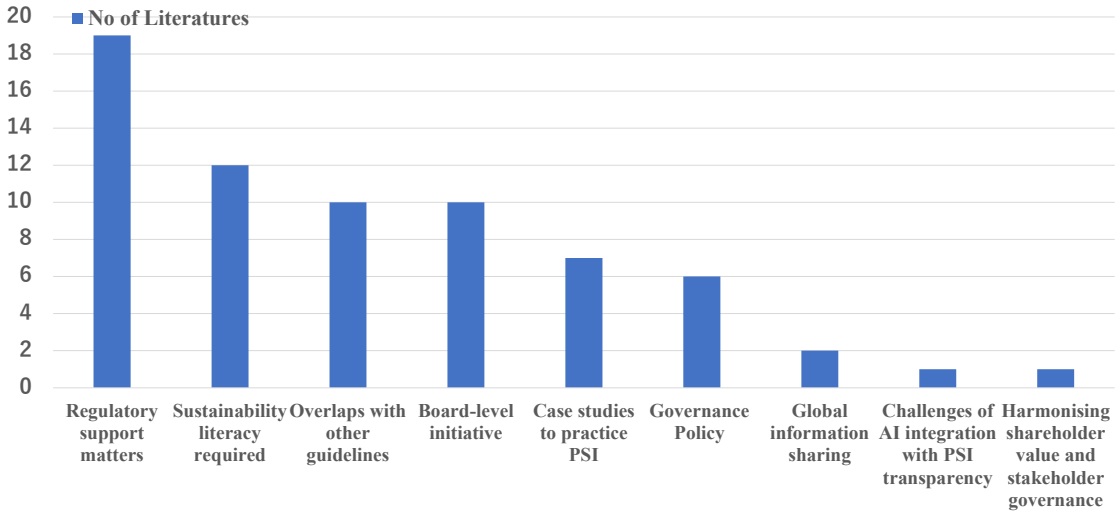


Through the literature review, it was revealed that frequently addressed themes include the integration of PSI into the management or operations of organisations, as well as the internalisation of PSI through the formulation of sustainability strategies or the evaluation of individual value chains. Some of the literature examines the variables that support or hinder the adoption of PSI within organisations, both from a conceptual framework perspective and in terms of operational practices.

Figure 5 summarises the frequency with which these variables, facilitating or hindering the adoption of PSI, are addressed in the literature.

Figure 5

Variables for mainstreaming PSI



The most frequently cited factor was regulatory support. Many publications emphasise that a robust regulatory framework—including supervisory powers and formal policy guidelines—is a key driver in promoting the adoption of PSI and its integration into overall business operations. A study from Hong Kong Special Administrative Region of China points out that a lack of regulatory support is a major barrier to PSI adoption (Lee & Fung, 2023).

The next most frequently cited factor was knowledge of sustainability. Numerous studies emphasised the importance of disseminating sustainability knowledge within organisations, noting that both management and employees'

understanding of ESG concepts significantly influences the success of PSI implementation. Two studies pointed out that a lack of knowledge regarding sustainability constitutes a major barrier to PSI implementation. One study made no explicit mention of either facilitating or hindering factors.

Overlaps with other guidelines were also addressed. Publications focused on the regulatory duplication between the PSI and frameworks such as the Global Reporting Initiative (GRI), as well as the global initiatives such as the Net Zero Alliance, which may require excessive organisational focus or lead to administrative burden.

Sustainability commitment from board members was also cited as a hurdle. Several studies emphasise that strong leadership from senior management is essential to drive PSI-related activities and integrate sustainability into core business strategy. It is also highlighted that there is the need for practical case studies of effective PSI implementation, particularly in markets where best operational practices are underdeveloped.

The role of governance policies was also frequently cited. Internal governance structures have significant managerial role to promote the cross-departmental PSI initiatives. Furthermore, much of the literature pointed to the need for improved global

information sharing, particularly in the context of developing sustainable insurance products and implementing rapid risk management strategies.

Discussions regarding integration of artificial intelligence into PSI-compliant disclosure systems were also cited. Finally, several studies explored the tension between shareholder and stakeholder regarding the corporate governance culture, advocating for greater transparency and a more balanced approach to harmonising financial objectives with long-term social value creation.

2.2.3 The Value of PSI in Advancing Sustainable Insurance

Of the 25 studies, 20 assessed PSI positively, concluding that it contributes to improving sustainability across the insurance industry as a whole. This includes enhancing organisational value, strategic alignment with ESG objectives, and more advanced risk management techniques. This favourable view was particularly prevalent in European literature.

For example, PSI was assessed as having contributed to improving sustainability performance in the EU insurance market (Bataller-Grau et al., 2025) and was positioned as a strategic tool for embedding sustainability across the entire insurance business (Barabanova, 2023).

Several authors emphasised the role of the PSI in supporting insurers' accurate assessment and management of ESG risks, thereby contributing to a more resilient, reliable and inclusive insurance ecosystem (Sood and Özen, 2024). Furthermore, PSI is incorporated into the insurance criteria of the Dow Jones Sustainability Index (DJSI) (Buteică & Huidumac-Petrescu, 2019), and the reputational and strategic benefits of compliance are highlighted. This index, operated by S&P Dow Jones Indices, includes major European insurance companies.

Scordis (2014) argued that the PSI promotes the internalisation of 'tacit social responsibility' by insurers, broadens the scope of traditional risk management, and simultaneously contributes to enhancing shareholder value. Based on these findings, it is clear that the PSI holds concrete value for both organisational resilience and ethical leadership within the insurance industry. PSI functions not only as voluntary guidelines but also as a driving force for strategic transformation in an economy increasingly sensitive to climate change.

2.2.4 Divergent Approaches to Sustainability Literacy

Vercher-Moll (2025) positions the PSI within the broader evolution of corporate social responsibility and governance in the European insurance industry. The PSI is regarded not merely as a collection of ethical principles, but as a practical framework for

the comprehensive management of ESG risks. The literature points out that the implementation of the PSI must vary according to corporate culture and regional circumstances. A flexible approach tailored to each organisation's circumstances is preferable to a standardised model.

Sustainability literacy is presented as a key requirement for integrating the PSI into the organisation. The effectiveness of the PSI depends largely on the extent to which employees and senior managers of the organisation understand ESG issues and can apply them to their work. Consequently, the importance of training and education is emphasised. The literature argues that the introduction of PSI is not merely a matter of signing a commitment, but rather a transformative process that enhances sustainability literacy and promotes cultural reform within the organization.

Several studies also suggest that the effectiveness of PSI may be constrained in contexts where sustainability awareness—such as familiarity with the SDGs—is generally low. This tendency is particularly noted in organisational environments where stakeholder-oriented governance is not well established. In such cases, the literature indicates that PSI implementation often requires a more tailored or context-specific approach rather than a uniform model.

Other studies warn that low ESG literacy may hinder sustainable finance initiatives. For example, Karnowski & Miśkiewicz (2021) point out that a lack of understanding of ESG could delay its adoption across financial institutions. Borgman et al. (2023) argue that low sustainability literacy may hinder strategies for biodiversity conservation, while Moid (2017) states that a lack of ESG literacy may limit the development of green finance markets.

Actuaries, who specialise in applying mathematical, statistical and financial techniques, play a vital role in insurance companies by assessing risk and uncertainty and utilising this to inform decision-making and product design. Actuaries also advocate for the importance of sustainability awareness. According to Schiller and Crugnola-Humbert (2022), in a world threatened by climate change where ESG issues are growing in importance, actuaries and financial professionals must support the transition to a more sustainable economy. They argue that actuaries should contribute to forward-looking risk management, supporting climate and environmental sustainability through the insurance sector, and identifying and addressing climate-related protection gaps, and that actuaries' expertise is now being called upon to address these challenges.

Schiller et al. (2022) report that ESG cannot be integrated into corporate financial practices without a basic understanding of sustainability. This suggests a causal relationship between knowledge of sustainability and the adoption of PSI.

2.2.5 The Role of Regulation in Shaping PSI Adoption: A Comparative Analysis of European and Asian Frameworks

Of the 25 academic papers reviewed, 18 explicitly addressed the role of regulation in the integration of ESG principles within the insurance sector. In Europe, regulation plays a key role in introducing ESG principles into management or operation. For example, the European Union (EU) has introduced various sustainability-related legal instruments, such as the Corporate Sustainability Reporting Directive (CSRD) and Solvency II. These frameworks require insurance companies to enhance sustainability disclosures and comply with robust solvency and risk management standards.

According to Vercher-Moll (2025), these sustainability regulations exert institutional pressure on insurance companies to integrate PSI principles into their business strategies, risk management and product development.

Bataller-Grau et al. (2025) also indicated that the introduction of the Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment

(EU Taxonomy Regulation) mandates the disclosure of sustainability-related information regarding financial products.

This regulatory change has strong impact to the insurance sector in Europe, and insurance companies find it opportunities to offer products that reflect investors' sustainability preferences. EU Taxonomy Regulation functions as a unified classification standard across the EU for defining sustainable products, promotes sustainability transparency in the EU market and guides EU-wide investment towards sustainable activities. Although the PSI is formally a voluntary framework, many literatures point out that, due to these changes in the EU regulatory environment, compliance with the PSI has practically become mandatory.

Additionally, Wang (2024) insists that global regulatory frameworks such as the Task Force on Climate-related Financial Disclosures (TCFD) and the Paris Agreement play a crucial role in guiding the insurance industry to formulate carbon-neutral policies and verify transparency regarding climate risks. Established under the Financial Stability Board (FSB) and launched in Basel, Switzerland, the TCFD provides a global framework for companies to disclose climate-related financial risks and opportunities, enabling more accountable investment decisions. This framework is consistent with code of conduct of the PSI such as Transparency and Accountability.

Meanwhile, literature focusing on Asia reflects differing regulatory environments. For example, Lee & Fung (2023) point out that in Hong Kong Special Administrative Region of China, the green insurance market is struggling due to a lack of consensus on the definition of green insurance and the absence of a unified regulatory framework. This lack of regulation is limiting the development of the insurance industry. EU, in contrast benefit from the existence of regulatory organisation such as European Insurance and Occupational Pensions Authority (EIOPA).

In India, the PSI remains a non-binding guideline, and regulatory impetus is minimal. The Indian insurance industry is in the early stages of sustainability integration and lags behind the systematic policy environment seen in Europe (Raza et al., 2022).

The Indonesian Financial Services Authority (OJK) introduced Regulation No. 51/POJK.03/2017. This regulation requires financial institutions (including insurance companies from 2020 onwards) to implement sustainable financial practices across environmental, social and economic dimensions. However, a review of corporate sustainability reports revealed that only one company mentioned the integration of ESG into its underwriting operations (Agnes et al., 2023). This indicates that substantive implementation is still in its early stages.

In most Asian markets, PSI is not enforced through legally binding mechanisms but is instead positioned as a set of international guidelines. In Japan, for example, financial authorities such as the Financial Services Agency and the High-Level Panel on ESG Finance have issued voluntary guidance to promote ESG integration and disclosure in line with the TCFD. However, there are no legal obligations directly related to PSI.

The institutional framework underpinning PSI in Europe is largely shaped by the regulatory framework (Wang, 2024). In Asia, by contrast, the adoption of PSI appears to be driven primarily by corporate discretion and international networks rather than legal enforcement. European regulations actively promote the integration of sustainability into insurers' value chains, in contrast to the regulatory frameworks in Asia. Several studies note that the comparatively limited development of sustainability regulation in Asia may reduce institutional incentives for PSI integration, indicating the need for further empirical research to clarify regional regulatory conditions.

2.2.6 Corporate Governance Culture as a Critical Factor in PSI Adoption

According to Agnes et al. (2023), 86% of the insurance companies surveyed expressed support for the PSI principles, indicating a high level of formal endorsement across the Indonesian non-life insurance sector. However, the subsequent analysis

revealed a clear discrepancy between stated commitment and actual practice: despite this strong declarative support, the integration of PSI principles into underwriting processes remained limited, with many firms continuing to prioritise short-term profitability over the incorporation of environmental and social risk considerations.

This indicates that the stakeholder centric framework including PSI will be possibly to face structural resistance owing to the difference of corporate governance culture (Hendrastuti & Harahap, 2023).

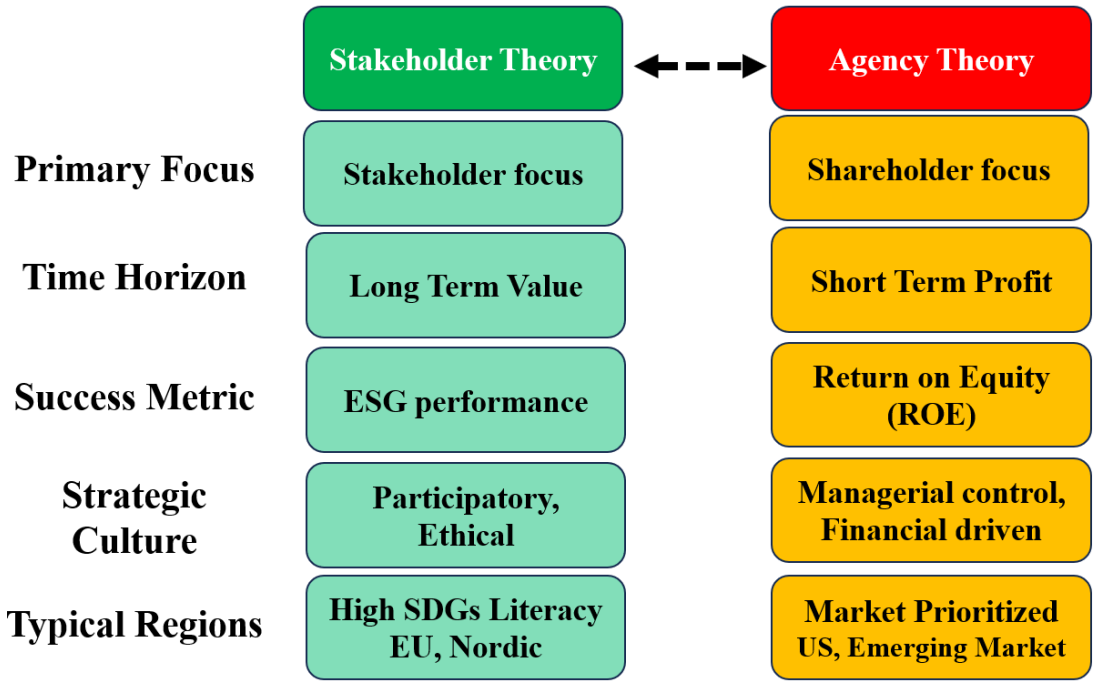
At the same time, Raza et al. (2022) insist that both the stakeholder and the agency theories constitute the foundation for the framework of corporate social responsibility (CSR). It appears that deep rooted challenges exist when companies lack focus in sustainability across the current Asian markets. Unless the standardized framework for improved transparency to evaluate ESG risks and opportunities, sustainability will not become the basic norm for the corporate governance, but just the theme for branding differentiation. The studies in Indonesia and India indicate that regional corporate governance culture needs to be explored and, in some circumstances, reexamined in order to mainstream PSI in Asian region. Freeman (2010) emphasises that the stakeholder theory argues that companies are required to be responsible for the employees, customers, regional society and the earth including wide range of

ecosystems. This exclusive vison will become inevitable to align PSI with evolving corporate governance frameworks in Asian region.

Freeman's stakeholder theory differs fundamentally from the agency theory in terms of ethical orientation, time horizon, and the prioritisation of performance (Figure 6).

Figure 6

Comparison of the Stakeholder Theory and the Agency Theory



Note. This figure was created by the author based on Freeman's seminal work, Strategic Management: A Stakeholder Approach (1984), to illustrate the key distinctions between the stakeholder-centered model and the shareholder-focused the agency theory.

The agency theory regards companies as a means to maximise the shareholder's value and prioritise the short-term financial return. In contrast, the stakeholder theory

stands on the wider perspective where companies are responsible for varieties of stakeholders whose collective interests will determine the companies' long-term success. This conversion of theory vision will not only reconceptualise the corporate performance index by including ESG factor and social contribution, but also reflect corporate governance norms to be grounded on transparency and inclusivity as is often observed in the European regulatory environment.

Under this visionary shift toward stakeholder-oriented governance, corporate governance structure in many Asian markets remains to be based on the agency theory governance structure which strongly supports shareholder's benefit and profit-centric decision making. These institutional culture will likely become a challenge in adopting stakeholder-centric framework such as PSI. As PSI is basically grounded on the stakeholder theory, it needs more than just symbolic adoption of PSI. It needs cultural revolution to integrate stakeholder engagement into corporate decision making.

Therefore, it is significantly important for judgement of the progress for adoption of PSI to understand the direction of corporate governance culture for the companies. In order to integrate PSI into business practices, companies especially focusing on short-term financial requirements are required to overcome the complicated corporate revolution. Transition to ESG oriented corporate governance framework is

not a simple technological issue but revolutionary process where structural and cultural conflict and resistance will possibly come across.

2.3 Synthesis of Findings

This section synthesises the key possibilities and limitations of adopting the PSI, based on the reviewed literature. The studies generally view ESG integration and the PSI framework as effective tools for advancing sustainable insurance practices. Clear geographical differences emerge: European studies tend to evaluate the PSI positively, whereas Asian studies highlight practical challenges in implementation. Across the literature, three gaps consistently explain why PSI mainstreaming remains limited in the Asian insurance industry.

The first gap is sustainability literacy. This shapes an organisation's ability to understand and apply the PSI. Several studies note that limited ESG knowledge among employees and senior managers restricts the shift from voluntary commitment to concrete operational practices.

The second gap is regulatory support. European jurisdictions have strong institutional mechanisms—such as mandatory sustainability disclosure rules and governance requirements—that reinforce PSI adoption. In contrast, PSI adoption in Asia largely remains voluntary, with limited regulatory incentives.

The third gap concerns corporate governance culture. The literature shows that governance structures influence whether organisations prioritise long-term sustainability or short-term financial performance. In settings dominated by agency-oriented governance, the stakeholder-based foundations of the PSI may conflict with prevailing business norms, creating structural and cultural barriers. Several studies also suggest that moving towards ESG-oriented governance often requires organisational change that goes beyond technical adjustments, as firms may face internal resistance when shifting away from short-term profit-driven models. By contrast, governance cultures grounded in stakeholder theory are more conducive to embedding the PSI as a strategic framework.

Overall, the barriers to PSI adoption stem not from conceptual limitations but from structural gaps in sustainability literacy, regulatory environments and corporate governance culture. These interrelated gaps determine whether the PSI functions merely as a symbolic commitment or as an operational guide for sustainable insurance practices. Recognising these gaps provides a stronger foundation for understanding the prospects for PSI mainstreaming, particularly in Asia.

3. Research Questions and Objectives

The unifying objective of this study is to identify the structural and organizational factors that limit the adoption and implementation of the PSI in the Asian insurance industry, and to provide evidence-based recommendations to the PSI Secretariat. Based on insights from the literature review earlier, this study focuses on three interrelated variables influencing the mainstreaming of PSI: sustainability literacy, regulatory support, and corporate governance culture.

Therefore, this study addresses the following research questions:

1. Does sustainability awareness within organizations affect their adoption or perception of the PSI?
2. Does the regulatory framework of the case country/region require organizations to incorporate sustainability principles?
3. Which governance orientation dominates: agency theory or stakeholder theory?

Through these questions, the study aims to clarify how organizational capabilities, the regulatory environment and corporate governance direction

influence the feasibility and penetration of PSI adoption in the Asian insurance industry.

4. Theoretical/conceptual framework

As existing literature indicates, while PSI is conceptually widely supported, its integration at the operational level varies significantly by region. In Europe, in particular, PSI is more institutionalized, supported by a strong regulatory framework and corporate governance practices that are generally coherent with sustainability-oriented management. In contrast, the adoption of PSI in Asian insurance markets is limited and uneven.

To explain this regional gap, this study focuses on three key structural variables identified through a literature review.

The first variable is sustainability literacy. In this study, sustainability literacy is defined as the organizational capacity to understand, internalise, and implement ESG and SDGs related concepts in core insurance functions. Where sustainability literacy is low, PSI tends to remain an abstract ideal or vision rather than being translated into concrete practice.

The second variable is regulatory support. The existence of clear sustainability-related regulations, supervisory guidelines, disclosure requirements, and corporate

governance norms acts as an external incentive for PSI to evolve from a voluntary initiative to an institutionalized organisational practice. While such institutional support is relatively strong in Europe, in many parts of Asia, PSI still operates as a non-binding, voluntary framework, limiting its practical implementation.

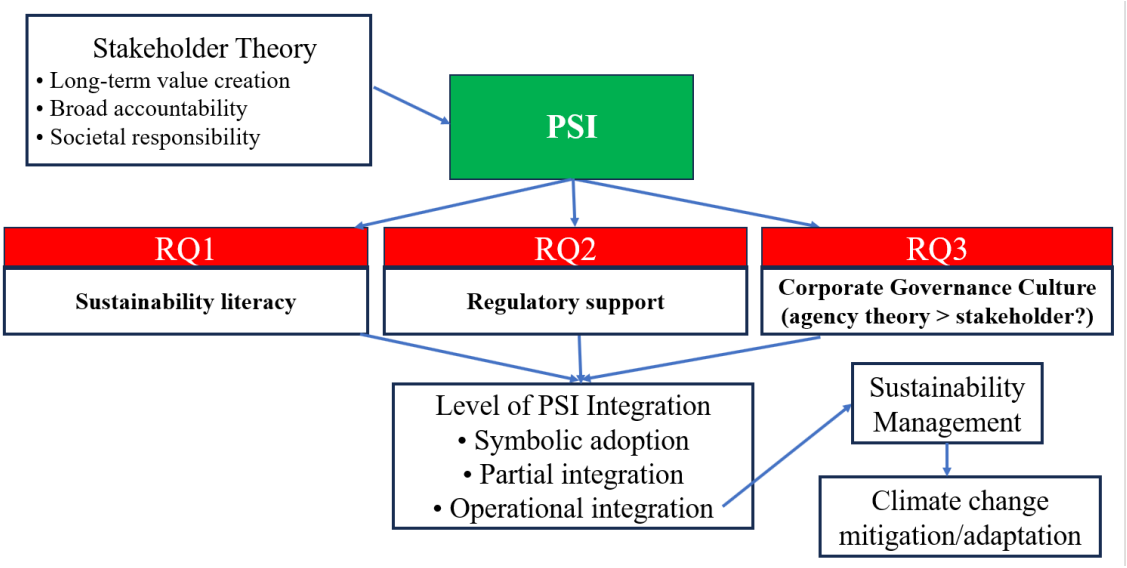
The third variable is corporate governance culture. It influences whether an organisation prioritises short-term financial performance or long-term stakeholder-oriented value creation. In regions where shareholder-focused models based on the agency theory dominate, it seems less likely that PSI is placed as the central theme for the corporate strategy. Conversely, it is likely that PSI will be welcomed by the organization with stakeholder-focused corporate governance culture as it resonates with wide range managerial philosophy and strategic direction.

The conceptual framework of this study illustrates how these three variables interact and influence the transition from the symbolic adoption of PSI to integration to practical operations for effective PSI implementation. Therefore, mainstreaming of PSI is not determined by single variable but combinations of variables. Corporate internal ability such as sustainability literacy, external institutional condition such as regulatory support and organisational norms such as corporate governance culture combined together. Figure 7 illustrates this conceptual framework, highlighting the potential of PSI

to function as a strategic guide for decision-making and promote the widespread adoption of sustainability-oriented management practices.

Figure 7

Theoretical/conceptual framework



In particular, wider adoption of PSI across Asia, which currently accounts for approximately half of global greenhouse gas emissions, could lead to increased stakeholder awareness, accelerated climate change mitigation, and the creation of social impacts that extend beyond the insurance industry.

5. Methodology

Table 5 presents a data matrix detailing the research questions, methodological approach, sample sources, data collection techniques, survey components, analytical methods, and anticipated outputs from the data.

Table 5

Data Collection Matrix

Research questions	Methodology	Data sources/ samples	Means of data collection	Key survey constructs and measurement	Analysis method	Expected outputs from the data
1. Does sustainability awareness within organisations influence the adoption or perception of PSI?	Survey (Questionnaire)	Selected Asian regulators /insurers	Online submission	1. Sustainability literacy, measured through respondents' agreement with statements assessing 2. Perceived importance of sustainability literacy for PSI adoption (5-point Likert scale: strongly disagree–strongly agree)	Performance × Significance mapping can be created to determine whether improving sustainability literacy should be treated as a priority for promoting PSI.	An improved understanding of sustainability literacy gaps, the main obstacles to PSI adoption, and the role that employee awareness plays in supporting PSI integration, helping to identify practical ways to strengthen sustainability education across the insurance sector.
2. Do regulatory frameworks	Existing data	Secondary: Regulation policy	Web search	Regulatory support for sustainability integration, captured through respondents'	Using descriptive statistics and correlation analysis	A clear understanding of key enablers/barriers, and the extent to which regulatory

Research questions	Methodology	Data sources/ samples	Means of data collection	Key survey constructs and measurement	Analysis method	Expected outputs from the data
require or encourage organisations to incorporate sustainability?	Survey (Questionnaire)	of 15 Asian countries/region Selected Asian regulators /insurers	Online submission	views on whether sustainability-related regulations and supervisory guidance are in place, how clearly they are articulated, and how effectively they operate in practice, measured on a five-point Likert scale.	to explore how regulatory framework influences PSI adoption and perception.	framework supports PSI adoption and implementation.
3. Which governance orientation dominates: agency theory or stakeholder theory? (Cultural context assessment)	Survey (Questionnaire)	Selected Asian regulators /insurers	Online submission	Corporate governance orientation, assessed through four indicators reflecting primary strategic focus, time horizon, success metrics, and decision-making culture, distinguishing between agency-oriented and stakeholder-oriented governance models (5-point Likert scale)	Evaluation of theoretical orientation using four indicators on a 5-point Likert scale derived from questionnaire responses	Stakeholder vs Agency Theory lean of significant 15 Asian countries/regions

To explore these questions, the study uses a multi-source survey approach, bringing together questionnaire data—including open-ended qualitative responses—with a structured review of regulatory and organisational documents. The first research question seeks to identify and confirm key influencing factors by comparing survey findings with the existing literature. The second examines how regulatory frameworks in Asia shape organisational attitudes towards sustainability, a factor that plays an important role in encouraging PSI adoption. The third investigates dominant corporate governance cultures by assessing their orientation towards the agency theory or the stakeholder theory.

5.1 Performance × Significance mapping

This section addresses Research Question 1 (RQ1), which explores whether the level of sustainability literacy within organisations shapes the adoption and implementation of the PSI.

To examine this relationship, two survey items were used. Question 4 (Q4) captures perceived performance by asking respondents to assess the extent to which sustainability literacy is embedded among employees in their organisation. Question 5 (Q5) measures perceived significance by asking how strongly sustainability literacy is believed to contribute to the effective adoption and implementation of PSI.

To analyse how these two dimensions interact, the study applies the Importance–Performance Analysis (IPA) framework originally proposed by Martilla and James (1977). IPA evaluates attributes by jointly considering their perceived performance and importance, thereby helping to identify areas that warrant managerial or policy attention.

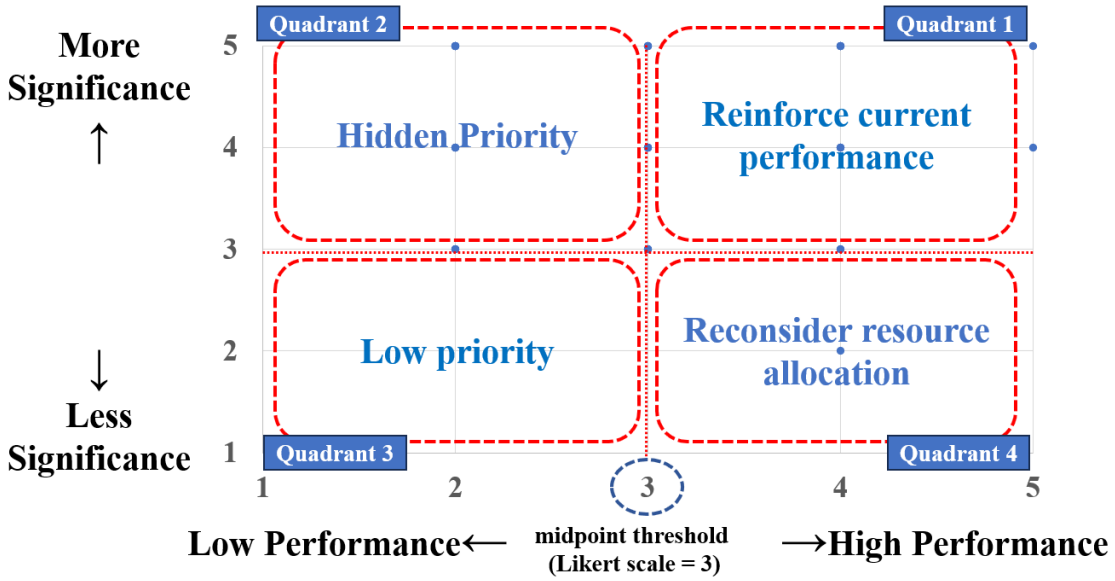
In this study, the framework is adapted as a Performance × Significance mapping to visualise both the alignment and the gaps between (i) how well sustainability literacy is currently embedded and (ii) how important it is perceived to be for mainstreaming PSI.

The analysis draws on paired five-point Likert-scale responses. The midpoint of the scale (value = 3) is used as the threshold to distinguish between relatively high and low scores on each dimension. Based on this classification, responses are allocated across four quadrants, each representing a distinct policy implication. The conceptual structure of this mapping is presented in Figure 8.

The upper-right quadrant (high performance and high significance) indicates areas where performance is strong and should be maintained and reinforced. The upper-left quadrant (low performance but high significance) highlights “hidden priority” areas for improvement that require targeted intervention.

Figure 8

Methodology (Performance × Significance Mapping)



Note. Conceptual logic adapted from Martilla and James (1977); mapping framework and visualisation developed by the author.

The lower-right quadrant (high performance but low significance) suggests potential over-investment and the need to reconsider resource allocation. Finally, the lower-left quadrant (low performance and low significance) represents areas of limited strategic priority.

5.2 Stakeholder-agency framework

The stakeholder–agency framework proposed by Bridoux and Stoelhorst (2022) provides a useful conceptual foundation for understanding differences in

corporate governance orientations. Although their study does not include specific survey questions, it clearly distinguishes between stakeholder- and agency-oriented governance logics.

Based on this distinction, survey items were formulated using the Corporate Governance Questionnaire developed by the International Finance Corporation (IFC) as a practical reference. Drawing upon these sources, the assessment is organised around four key indicators: the organisation's prioritisation of shareholder interests; its strategic focus on short-term business outcomes; the metrics used to evaluate corporate success, particularly the emphasis on financial indicators such as return on equity (ROE); and the extent to which strategic direction is centrally controlled. Collectively, these dimensions offer insights into the underlying governance philosophy of firms across the fifteen selected Asian markets.

Additionally, a limited number of insurance companies and insurance regulators in Asia have already adopted PSI. Therefore, for respondents belonging to PSI signatories or supporting institutions, the study will seek further insight into:

- PSI implementation status within the organisation;
- Perceived effectiveness of PSI adoption.

By posing both common and targeted questions to institutions that have either adopted or not adopted PSI, this study intends to enable relational data analysis across respondent groups. The complete list of questionnaire items is provided in Annex 1.

5.3 Data sample and collection:

This study employed a multi-source survey methodology, combining multiple information sources.

First, an online questionnaire was used, including both quantitative Likert scale items and qualitative open-ended response fields. This combination allowed for the capture of not only the structured evaluations of respondents but also more in-depth explanatory insights.

Next, a systematic review of publicly available documents and regulatory materials related to sustainability and insurance supervision was conducted. This included laws, supervisory guidelines, disclosure requirements, and related publications issued by national insurance supervisory authorities and related agencies.

By integrating these data sources, it became possible to triangulate how stakeholders' perceptions and evaluations of PSI are linked to the institutional and regulatory environment.

5.3.1 Participants of the Study

Sampling frame and recruitment.

The primary sample consisted of participants in the insurance seminar for the Asian region organised by the Foundation for the Advancement of Life and Insurance Around the World (FALIA), held from 3–9 September 2025 and 5–10 November 2025. Participants included representatives from insurance supervisory authorities, insurance companies and insurance associations across multiple countries, all of whom were experienced professionals occupying roles that reflect their national insurance sectors.

Because participants were nominated by their national insurance associations or relevant institutions, the sample was not statistically random. Instead, it represented expert sampling targeting individuals with direct relevance to the research topic. As the respondents were actively involved in decision-making related to PSI adoption and sustainability integration, the sample aligned well with the study's objectives and demonstrated strong content validity.

All data collection was conducted online. No analysis was performed on personal attributes such as age or gender. The unit of analysis was the institutional perspective rather than the individual respondent, focusing on perceptions shaped by organisational and regulatory contexts.

Participant profile and unit of analysis.

Of the 47 respondents, 13 were from insurance regulators, and 34 were from insurance companies, insurance associations, or insurance-related data hubs or integrators. For analytical purposes, responses from insurance associations and data-related organizations were treated as part of the insurance company group, as their functional roles and institutional perspectives are closer to those of insurance companies than those of supervisory authorities.

All data collection was conducted online, and no analysis based on personal attributes such as age or gender was performed. Importantly, the unit of analysis in this study is not individual respondents, but rather an institutional perspective shaped by organizational and regulatory contexts.

Country/region coverage and expansion from 10 to 15 jurisdictions

The study initially covered ten countries and regions selected on theoretical grounds: Cambodia, China, Indonesia, Malaysia, Nepal, the Philippines, South Korea, Sri Lanka, Taiwan, Province of China (Taiwan, hereinafter) and Thailand. These jurisdictions were included because they represent climate-vulnerable V20 countries,

PSI signatory markets or countries or regions with strengthening sustainability-related regulatory frameworks.

As seminar participation increased, the sample expanded to fifteen jurisdictions through extended expert sampling. Kazakhstan, Mongolia, Turkey, Uzbekistan and Viet Nam were added as emerging or transitioning insurance markets with developing sustainability regulations, broadening the institutional diversity of the study. Because respondent numbers varied across countries, the study did not conduct strict statistical comparisons; instead, country or region-level observations were treated as contextual. Table 6 summarises respondents by jurisdiction.

Table 6

Number of Respondents by Country or Region

Country or Region	Insurance company (count)	Supervisor/Regulator (count)	Total entities
Cambodia	0	3	3
China	2	0	2
Indonesia	2	0	2
Kazakhstan	2	0	2
Korea	3	1	4
Malaysia	2	2	4
Mongolia	1	0	1

Country or Region	Insurance company (count)	Supervisor/Regulator (count)	Total entities
Nepal	0	1	1
Philippines	1	2	3
Sri Lanka	4	2	6
Taiwan	6	0	6
Thailand	0	2	2
Turkey	1	0	1
Uzbekistan	8	0	8
Viet Nam	2	0	2
Total	**34**	**13**	**47**

Sample adequacy and analytical implications.

The sample size reflects the fact that this study was designed to target experts. Although the number of participants was relatively small, as it was limited to attendees of the FALIA seminar, the study was able to access a group possessing a high level of expertise directly relevant to the research topic.

Although the sample size is not large, it is entirely appropriate for the study's objectives, as the aim is to gain analytical insights rather than to make statistical generalisations. The objective was to identify the structural patterns, common constraints and enabling factors shaping the adoption of PSI across diverse Asian

contexts, rather than to estimate population parameters or conduct rigorous country-by-country comparisons.

Consequently, the dataset for this study was treated as a theoretically grounded exploratory basis for examining three key gaps—sustainability literacy, regulatory support and corporate governance culture—across stakeholder groups and institutional contexts.

5.3.2 Measures (variables) and criteria for indicator selection

The indicators included in the questionnaire were selected on the basis of two criteria:

First, theoretical validity was ensured by aligning the indicators with the three core gap variables identified in the literature review and embedded within the conceptual framework: sustainability literacy, regulatory support, and corporate governance culture. This alignment helps ensure that the measures directly reflect the theoretical foundations of the study.

Second, practical and operational validity was taken into account to ensure that respondents from diverse institutional, professional, and cultural backgrounds could engage with the questions based on a shared and accessible understanding. The indicators

were therefore designed to be clear, intuitive, and applicable across different regulatory and organisational contexts within the Asian insurance sector.

Sustainability literacy was measured using a two-dimensional structure of Performance (current awareness) and Significance (perceived importance).

Regulatory support was assessed by examining both the existence of current regulatory measures and the extent to which organisations would be willing to adopt the PSI if regulatory requirements were strengthened.

Corporate governance culture was measured using four indicators—primary organisational concern, time horizon, success metrics, and strategic orientation—derived from the contrast between the agency theory and the stakeholder theory.

5.3.3 Data collection procedures

Data were collected using two complementary methods.

First, an online questionnaire survey was administered. This included both five-point Likert-scale items and open-ended response fields, enabling the collection of structured quantitative data alongside more reflective qualitative input. The open-ended survey responses were used as qualitative material to complement the interpretation of the quantitative findings. Rather than serving as a primary qualitative dataset, these

responses provided contextual insights and functioned as a practical alternative to the group discussions that were originally planned but could not be conducted.

Second, a review of regulatory and institutional documents was undertaken. This involved examining laws, supervisory guidelines, disclosure requirements, and related materials published by national insurance supervisory authorities and relevant institutions.

5.3.4 Analytical strategy and classification thresholds

The analysis combined quantitative and qualitative approaches in order to provide a balanced and interpretable account of the survey results.

First, descriptive statistical analysis was used to summarise the data, drawing on mean values and response distributions derived from the five-point Likert scales. This allowed for an overall assessment of patterns across respondents and stakeholder groups.

Second, Performance × Significance mapping was applied to selected variables. The midpoint of the Likert scale (a value of three) was used as the reference threshold to distinguish between relatively high and low scores. On this basis, responses were positioned within four analytical quadrants. Responses falling close to the midpoint were treated as intermediate cases and interpreted cautiously, as they do not clearly indicate a strong directional tendency.

Third, corporate governance culture was assessed by calculating a composite score across the four governance-related indicators included in the questionnaire. Using three as the reference point, scores above this value were interpreted as reflecting a more agency-oriented governance culture, while scores below it were taken to indicate a more stakeholder-oriented orientation. Scores clustered around the midpoint were interpreted as representing mixed or transitional governance characteristics.

Fourth, the regulatory environment in each country or region was classified on the basis of the document review into three categories: Mandatory, Partial/Developing, and Minimal. These classifications were then compared with survey responses in order to identify areas of alignment or divergence between perceived and observable regulatory conditions.

Finally, open-ended survey responses were used as supporting qualitative material rather than analysed through formal coding. Their main purpose was to fill gaps left by the Likert-scale analysis and to help explain the patterns observed in the quantitative data. The responses were reviewed to identify clear and illustrative comments that helped explain how respondents interpreted the questions or raised issues not fully captured by fixed response options. Where relevant, brief examples from these comments were included to provide context or nuance to the quantitative results.

5.4 Document-based Regulatory Analysis and Coding Procedure

In addition to the questionnaire survey, this study conducted a document analysis of sustainability-related insurance regulations across fifteen Asian countries and regions. This analysis was undertaken to contextualise the survey responses, particularly those related to Research Question 2, and to distinguish between perceived regulatory conditions and observable regulatory frameworks.

The regulatory analysis was conducted by the author based on a systematic review of publicly available regulatory documents, including insurance laws, supervisory guidelines, disclosure requirements, and sustainability-related policy statements issued by governments, insurance supervisory authorities, central banks, and stock exchanges.

Given the exploratory nature of this study and the limited availability of trained secondary coders with comparable expertise in insurance regulation across multiple jurisdictions, formal inter-rater reliability testing was not conducted. Instead, consistency was ensured through the use of clearly defined coding criteria applied uniformly across all jurisdictions.

Five observable regulatory features were identified to operationalise sustainability-related insurance regulation:

(i) the presence of explicit mandates requiring ESG integration by insurers;

(ii) mandatory ESG or sustainability-related disclosure requirements;

(iii) compulsory submission of sustainability reports;

(iv) formal alignment with international disclosure frameworks such as the International Sustainability Standards Board (ISSB), TCFD, or GRI; and

(v) insurance-specific applicability of the regulation.

Each regulatory feature was coded on a three-point scale: 0 indicating absence, 0.5 indicating voluntary, phased, or partial application, and 1 indicating a mandatory requirement. The aggregated scores were then used to classify regulatory environments into three categories—Minimum, Partial/Developing, and Mandatory—based on predefined threshold values. Jurisdictions with aggregated scores between zero and one were classified as Minimum, those scoring between 1.5 and 3.5 as Partial/Developing, and those scoring between 4.0 and 5.0 as Mandatory. These thresholds were defined ex ante to ensure consistency and transparency in classification.

6. Findings

This chapter presents the findings of the questionnaire survey conducted in accordance with the methodology outlined in Chapter 5. The analysis aims to clarify how the PSI are perceived and operationalised within the Asian insurance sector, and to

identify the structural factors that facilitate or constrain their transition from conceptual endorsement to practical implementation. It also examines how the term “sustainability” is understood among regulators and insurance companies in Asia, which will suggest how PSI should be interpreted and adopted in Asia.

The findings are organised around three core gap variables identified in the conceptual framework outlined in Chapter 4: sustainability literacy, regulatory support, and corporate governance culture. Together, these dimensions provide a structured analytical frameworks through which the patterns and variations in PSI adoption across the region are examined.

6.1 Structure of the questionnaire and analytical focus

The survey instrument consisted of 16 questions (Annex1). These questions were designed to align explicitly with the research questions and the conceptual framework.

Questions Q1 and Q2 assessed respondents’ evaluation of the PSI itself, measuring its perceived credibility and practical importance within the insurance sector. Together, these questions establish the baseline positioning of the PSI in Asia.

Q3 examined perceived barriers to PSI adoption, drawing on factors identified in the literature review (Chapter 2; Figure 5), including regulatory constraints, organisational capacity, and perceived overlap with existing frameworks.

Building on this baseline assessment, the core research questions of the study were addressed through Questions Q4 to Q11, each corresponding to one of the three structural gap variables identified in the conceptual framework (Chapter 4).

With regard to RQ1—whether sustainability awareness within organisations affects the adoption or perception of PSI—sustainability literacy was analysed using a Performance × Significance approach based on responses to Q4 and Q5.

RQ2, which examines whether regulatory frameworks in the case countries or regions require organisations to incorporate sustainability principles, was addressed through Q6 and Q7. Question Q6 assessed the current regulatory environment, while Q7 explored expected organisational behaviour under conditions of strengthened regulatory requirements.

To address RQ3, concerning whether organisational corporate governance culture aligns more closely with the stakeholder theory or the agency theory, governance orientation was measured through four indicators captured in Q8 to Q11: (1) the prioritisation of shareholder versus stakeholder interests, (2) short-term versus long-term strategic orientation, (3) reliance on financial versus non-financial performance metrics, and (4) centralised versus participatory strategic culture.

Additional questions Q12–Q14 explored preferences regarding PSI content, alignment with SDG themes, and prevailing understanding of sustainability within the Asian insurance context.

Finally, Q15 and Q16 provided supplementary insights from respondents affiliated with PSI signatory institutions, focusing on organisational integration and perceived value creation.

6.2 PSI Credibility

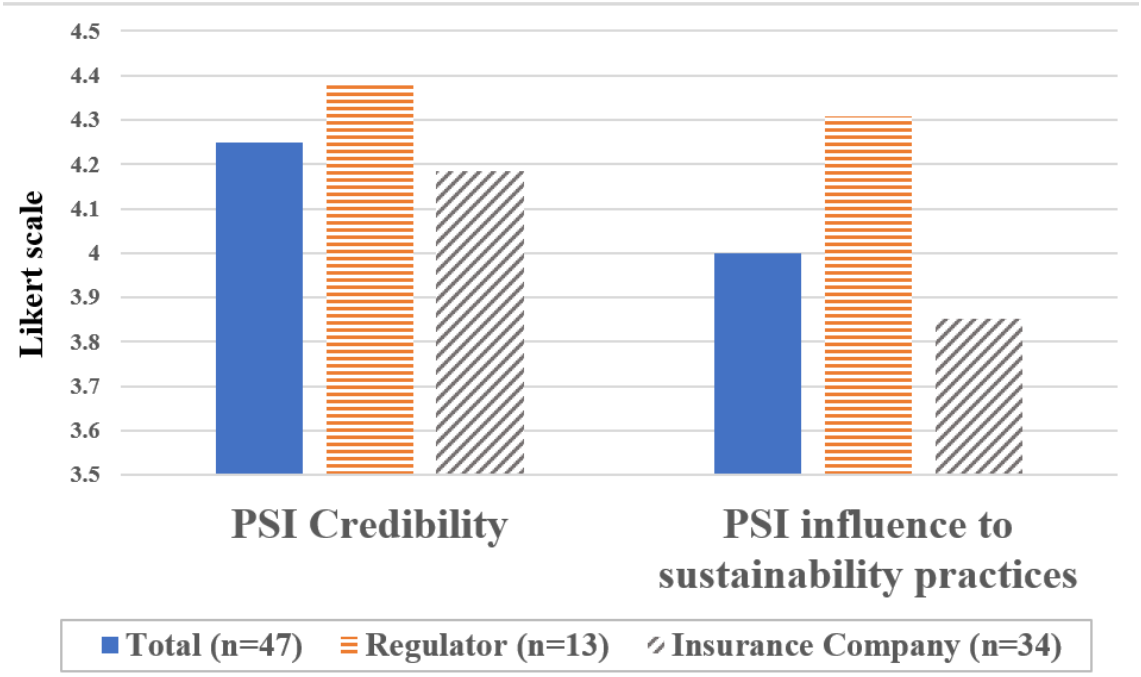
As a preliminary step to addressing Research Questions 1, 2 and 3, the study first examined how respondents evaluate the PSI in the Asian insurance sector. Specifically, they were asked two questions: “How do you assess the credibility of the PSI as a governance framework for the insurance industry in Asia?” and “To what extent do you consider the PSI to influence actual sustainability outcomes within the insurance sector?”

This study aimed to determine whether the PSI is regarded as a high-priority framework in Asia even before exploring the gap variables.

As shown in Figure 9, the survey results indicate that the PSI credibility and the PSI influence to sustainability practices are very high despite the very limited diffusion of the PSI in Asia.

Figure 9

Comparison of Regulators and Insurance Companies on Q1 (PSI Credibility) and Q2 (PSI Influence)



The mean score for PSI Credibility and the PSI Influence was 4.2 and 4.0 respectively based on a five-point Likert scale (1–5), suggesting that the timing is favourable for strengthening PSI implementation support, even though actual uptake remains limited.

Moreover, the average scores among the insurance regulators were even higher, with 4.4 for the PSI credibility and 4.3 for the PSI influence. By contrast, the averages for insurance companies (including life insurance associations and Data Hubs) were 4.2

for the PSI credibility and 3.9 for the PSI influence. Although both groups rated the PSI very positively, regulators consistently attributed greater practical influence to it. This difference likely reflects regulators' stronger expectation that governance frameworks such as the PSI can be used to steer industry behaviour and sustainability outcomes.

6.3 Barriers to PSI Adoption

Next, the survey examined the factors that hinder the adoption of the PSI. This line of questioning builds directly on Research Questions 1 and 2, which identify sustainability literacy and regulatory support as key variables influencing PSI adoption. The purpose of this section is to assess whether the variables identified in the literature review are also perceived as salient barriers within the Asian insurance industry in practice.

Respondents were asked to evaluate the extent to which specific factors act as barriers to PSI adoption (Q3) using a five-point Likert scale, ranging from 5 (major barrier) to 1 (not a barrier). Based on the variables identified in the literature review (Chapter 2; Figure 5), six options of potential barriers were specified.

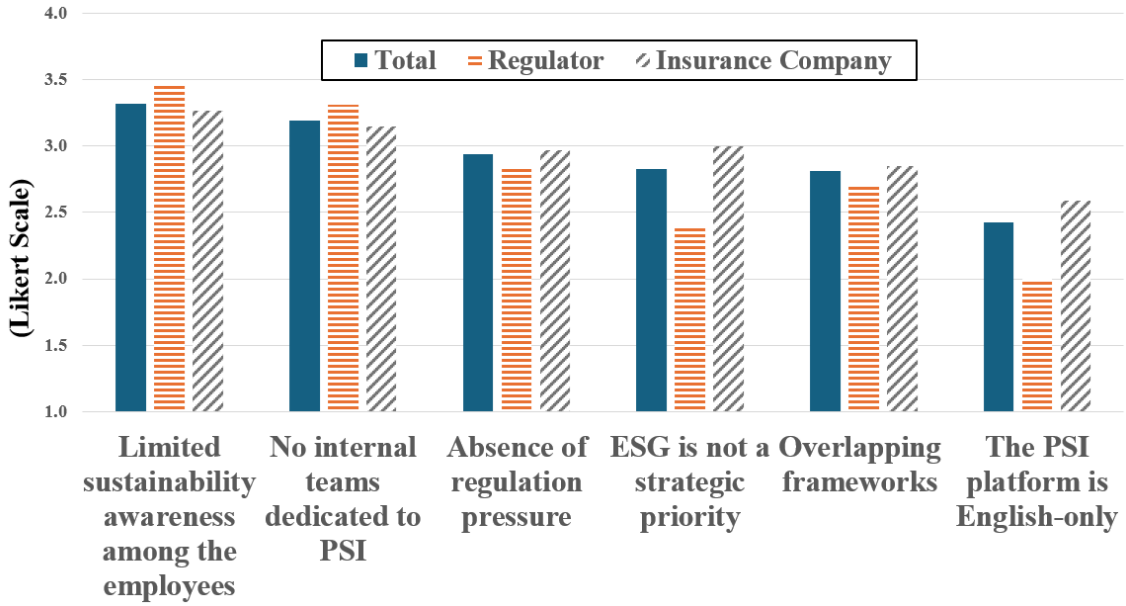
To complement the literature-based response options in Q3, an "Other (please specify)" category was included to capture barriers not explicitly identified in prior research. While the predefined options were derived from key variables identified in the

literature review, the “Other” category allows respondents to report context-specific constraints beyond these established factors. This approach strengthens the exploratory nature of the analysis even though no substantial new category emerged from the “Other” responses were identified.

The overall results indicate that the most significant barrier to PSI adoption is insufficient sustainability literacy among employees, followed by the absence of a dedicated PSI team, weak regulatory support, the low strategic priority assigned to ESG, perceived overlap with existing frameworks, and finally the English-only nature of the PSI platform (Figure 10).

Figure 10

Barrier Factors for Adopting PSI (mean scores)



Note. The bars report mean scores based on a five-point Likert scale, where higher values indicate stronger perceived barriers to PSI adoption (5 = major barrier; 1 = not a barrier). Results are shown for all respondents combined, as well as separately for regulators and insurance companies.

While the importance of sustainability literacy and regulatory support had already been strongly emphasised in the literature as critical variables affecting PSI adoption, the prominence of operational constraints, particularly the absence of a dedicated PSI team, emerged as a notable empirical finding. The lack of a dedicated team may be interpreted as functionally equivalent to ESG not being treated as a strategic priority within the organisation. In this sense, operational capacity and strategic prioritisation appear to be closely interlinked.

It is also noteworthy that the perceived overlap between PSI and existing frameworks was assessed as moderately influential, rather than a major barrier. For example, TCFD (2017) provides a cross-sectoral framework for climate-related financial disclosure, and PSI may be understood as an insurance-specific operationalisation of similar principles. As a result, areas such as board oversight, climate risk management (physical and transition risks), scenario analysis, climate-related disclosure requirements, and climate considerations in underwriting and investment naturally overlap. Similarly, the Principles for Responsible Investment (PRI) explicitly call for the integration of ESG considerations into investment decision-making, stakeholder engagement, ESG disclosure, and a long-term value-creation perspective—elements that closely correspond to the PSI Code of Conduct.

When the results are disaggregated by stakeholder group, further differences become apparent. Regulatory authorities tend to perceive insufficient sustainability literacy and the absence of dedicated organisational capacity as particularly significant barriers. In contrast, insurance companies identify weak regulatory pressure, the low organisational priority of ESG, and the English-only PSI platform as more substantial obstacles than regulators do. This divergence suggests that insurers place greater emphasis on the need for clearer and stronger regulatory signals to incentivise PSI

adoption, indicating a higher expectation of regulatory leadership compared with supervisory authorities.

Further insight into these barriers is provided by the open-ended responses. A respondent from Malaysia noted that "Voluntary PSI adoption seen as insufficient; need for regulatory clarity to balance profit motives with sustainability". This comment reinforces the survey finding that insurance companies need clear regulation to adopt and implement PSI. The comment suggests that respondent expects more assertive regulatory signals to encourage PSI adoption, and that they look to regulators for stronger leadership than is currently perceived from supervisory authorities.

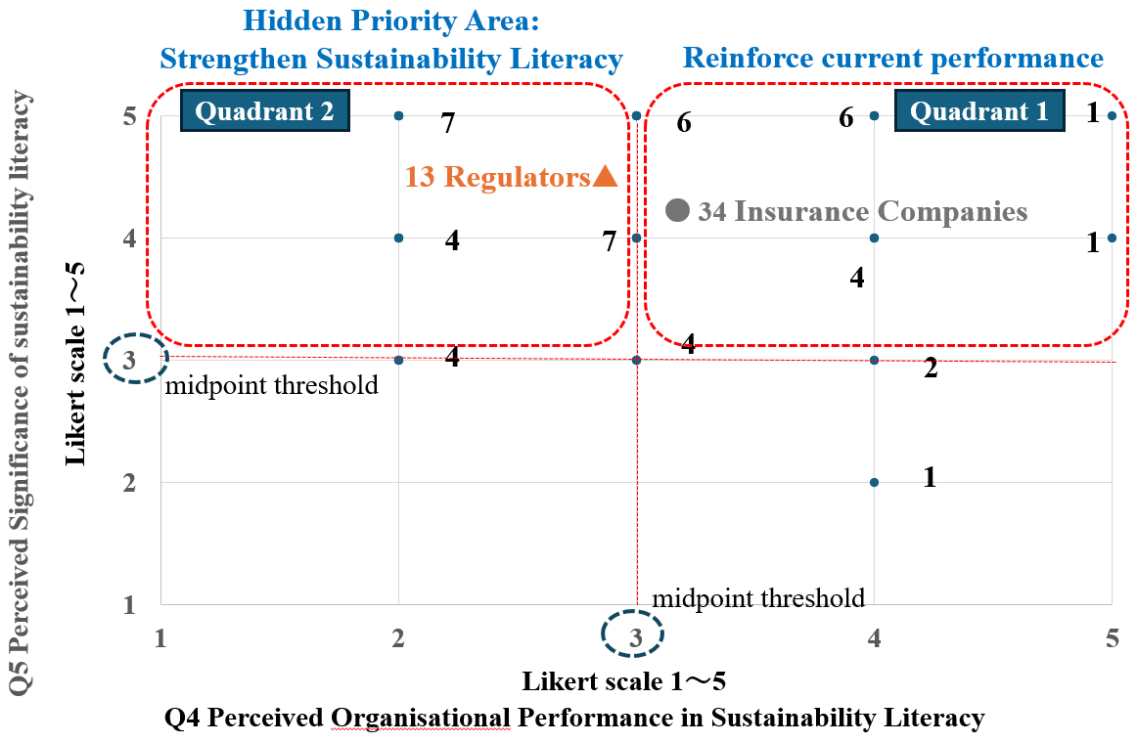
6.4 Sustainability Literacy: Performance × Significance

To address Research Question 1 (RQ1), the analysis employed a Performance × Significance mapping approach focusing on sustainability literacy. Performance was measured using Question 4 (Q4): "To what extent do you think the understanding and diffusion of the SDGs have progressed within your organisation?" Significance was measured using Question 5 (Q5): "Do you think that improving employees' sustainability literacy would contribute to the adoption of the PSI?"

By combining these two questions, a Performance × Significance mapping of sustainability literacy was constructed (Figure 11).

Figure 11

Scatter plot of Q4 (Perceived Organisational Performance in Sustainability Literacy) vs Q5 (Perceived Significance of sustainability literacy)



Note. Each dot represents one survey response (one institutional respondent). Where numerals are displayed next to dots, they indicate the number of respondents who reported the same combination of scores on the two axes. Dots are colour-coded by stakeholder group: regulators are shown in orange, while insurance companies are shown in grey. Insurance companies are represented by solid circles (grey), and regulators by triangles (orange). The dotted quadrant boundaries represent analytical thresholds based on the midpoint of the five-point Likert scale (value = 3). The red dotted box in the upper-right quadrant highlights the area in which both performance and significance are high, drawing attention to responses that fall within the "Reinforce current performance" category. The red dotted box in the upper-left quadrant represents the area in which performance is relatively low and significance is relatively high and is used to emphasise responses indicating the need to strengthen sustainability literacy for PSI implementation.

When examining the overall mean values, the average score for Performance was 3.0, while the average score for Significance was 4.2, indicating a substantial gap between the perceived current level of organizational sustainability literacy and its perceived significant. Looking more closely at the distribution of Performance responses, seventeen respondents selected Opt3, indicating that while SDGs are recognised conceptually, practical understanding remains limited. In addition, fifteen respondents selected Opt2, suggesting that sustainability literacy is not well developed and is recognised only by a small number of staff. These results indicate that sustainability literacy within organisations remains relatively limited across the sample.

In contrast, responses regarding Significance reveal a strong consensus on the significance of sustainability literacy. Twenty respondents selected Opt5, indicating strong agreement that improving sustainability literacy would significantly contribute to PSI adoption, while sixteen respondents selected Opt4, indicating general agreement. Together, these responses indicate that 36 out of 47 respondents, representing approximately 77% of the sample, expressed a positive assessment of the significance of sustainability literacy for the adoption of PSI.

When analysed using the four-quadrant framework, 36 out of 47 responses (approximately 77%) fall within the first quadrant (“Reinforce current performance”) and

the second quadrant ("Strengthen sustainability literacy"), including responses located on the boundary between the two quadrants. Only one respondent was located in the fourth quadrant, and no respondents were located in the third quadrant. In addition, ten respondents were positioned on the boundary between the first and second quadrants and the third and fourth quadrants. These respondents selected 3 for Question 5 (Significance), indicating uncertainty as to whether higher sustainability literacy directly leads to increased PSI adoption. One respondent noted the contextual variability of sustainability literacy when assessing its relevance to PSI adoption, commenting that "it is difficult to determine this at present; rather, the degree of impact may vary depending on organisational context and priorities."

This observation suggests that PSI adoption is not determined solely by the level of sustainability literacy, but also by whether sustainability and ESG integration are prioritised within an organisation's broader business strategy. In this regard, PSI adoption is more likely to progress when either regulatory pressure to integrate sustainability into management strengthens, or when senior management's sustainability literacy increases to the point where ESG integration is recognised as a source of organisational growth opportunities. In any case, the concentration of responses in the first and second quadrants

indicates that enhancing sustainability literacy is an urgent issue for the insurance industry in promoting PSI adoption.

When the results are disaggregated by stakeholder group, and mean values are mapped separately for regulators and insurance companies, the average Performance score for regulators is 2.9, with a Significance score of 4.5, while for insurance companies the corresponding values are 3.1 and 4.1. As discussed in Section 6.3 (PSI credibility and significance), regulators tend to assign particularly high Credibility and Significance scores to PSI itself. This suggests that, from the regulators' perspective, policies aimed at improving employees' sustainability literacy could serve as an effective preparatory step for facilitating more systematic and effective PSI adoption.

Open ended survey responses also emphasised the importance of localisation. One respondent from Taiwan commented:

> *While ESG awareness is growing, most employees only understand it at a general level… There is also a lack of localised training resources, measurable KPIs, and cross department coordination to support PSI implementation… Providing more practical and localised guidance would be highly beneficial.*

Similarly, a respondent from an Indonesian life insurance association noted that "Future PSI initiatives focusing on capacity building, localised case studies, and sector specific best practices would be highly valuable for insurers in emerging markets."

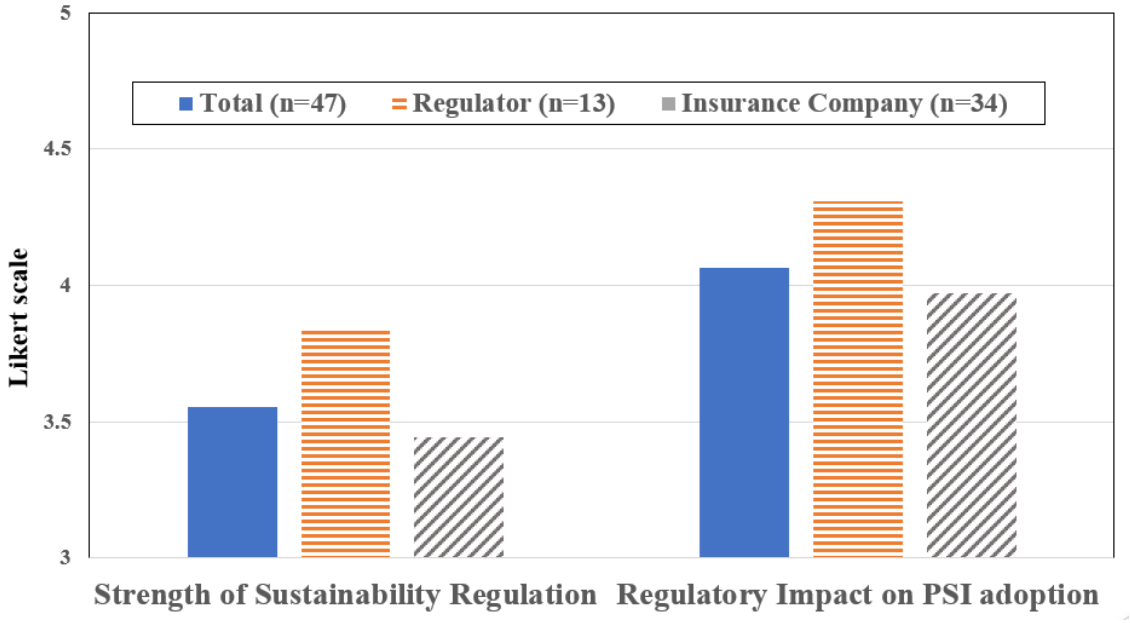
These insights suggest that sustainability literacy can be strengthened when regulators provide guidance, case studies, and frameworks that are tailored to national or regional contexts.

6.5 Sustainability Regulation: Survey-Based Findings (RQ2)

To address Research Question 2 (RQ2), Questions 6 and 7 were included in the survey. It is important to clarify the distinction between the two questions. Question 6 captures the strength of sustainability-related regulatory frameworks in respondents' country or region. By contrast, Question 7 reflects the perceived impact of such regulations, asking whether organisations would be likely to adopt the PSI if clear and binding sustainability requirements were introduced. The overall results show that the mean score for Question 6 (Regulatory Strength) is 3.5, while the mean score for Question 7 (Regulatory Impact on PSI Adoption) is 4.1 (Figure 12).

Figure 12

Comparison of Regulators and Insurance Companies on Q6 (Strength of Sustainability Regulation) and Q7 (Regulatory Impact on PSI Adoption)



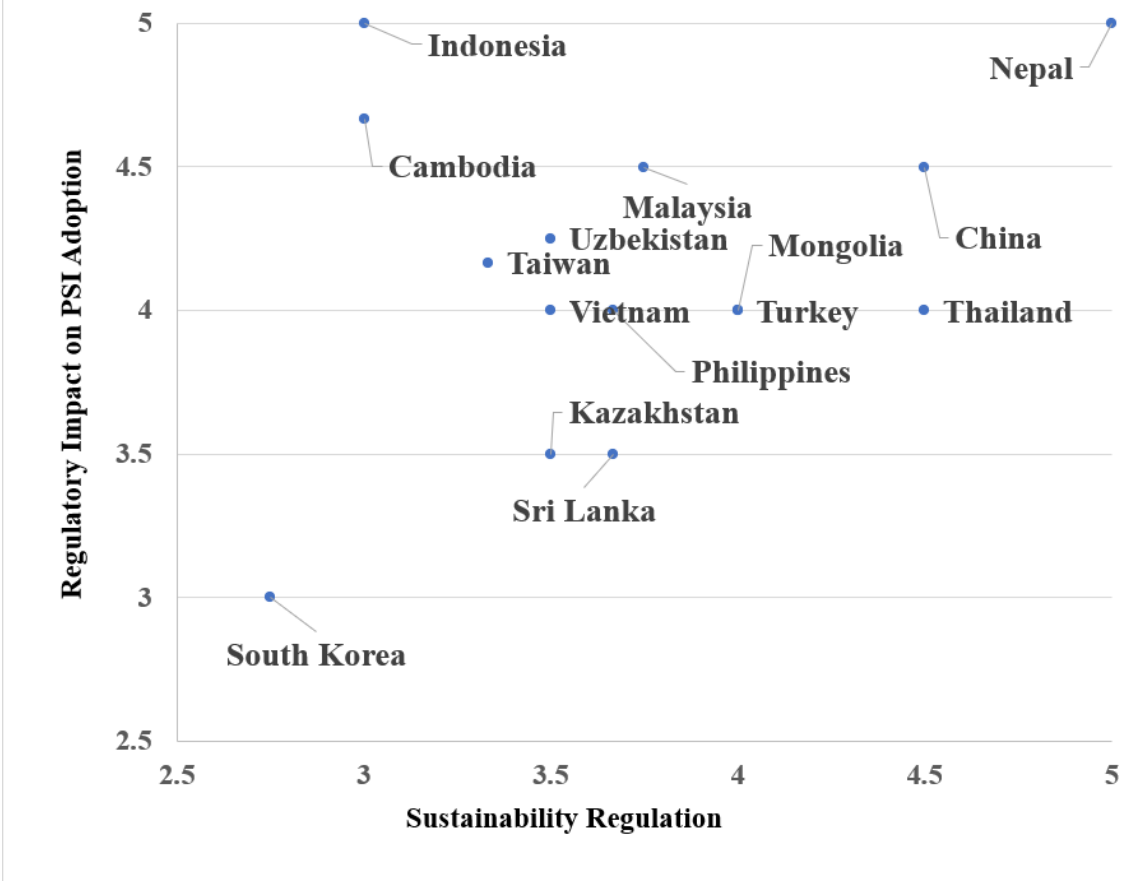
These results suggest that, despite the common perception that sustainability-related regulation in Asia remains underdeveloped, many respondents within the region's insurance sector nonetheless recognise the presence of a certain degree of regulatory strength. They also indicate a broadly shared expectation that, where clearer and more binding sustainability requirements are introduced, PSI adoption would be likely to increase. This tendency is particularly pronounced among regulators, whose average scores were 3.8 for regulatory strength and 4.3 for the expected regulatory impact on PSI uptake. By contrast, the corresponding averages for insurance companies were 3.4 and 4.0.

At the same time, highly negative responses to both questions point to substantial variation in how respondents view the current regulatory landscape. For Question 6, 14 respondents selected Opt3 indicating regulatory inconsistent application. Three respondents selected Opt2 ("Only minimal, non-binding sustainability guidance is available from regulators"). And one respondent selected Opt1 ("There are no formal regulatory requirements linking sustainability to insurance industry practices"). This variation should be interpreted as differences in regulatory clarity and implementation across jurisdictions, rather than as disagreement about the potential value of regulation itself.

To explore these differences further, average response scores were calculated for each country and region, and their distribution across the 15 countries and regions represented in the survey was mapped (Figure13).

Figure 13

Scatter plot of Q6 (Sustainability Regulation) vs Q7 (Regulatory Impact on PSI Adoption) by Country/Region



South Korea was positioned near the boundary between the second and third quadrants in the lower-left region. In contrast, Nepal appeared in the upper-right first quadrant, with China and Thailand following a similar pattern, reflecting comparatively stronger perceived regulatory environments alongside a higher propensity for PSI adoption. It should be noted that this quadrant-based comparison reflects perceived regulatory conditions based on survey responses, rather than a direct assessment of formal regulatory provisions.

Finally, when comparing responses by stakeholder group, Figure 12 shows that regulators reported mean scores of 3.8 for Question 6 and 4.3 for Question 7, whereas insurance companies reported lower mean scores of 3.4 and 4.0, respectively. All in all, regulators reported higher mean scores than insurance companies on both questions.

This suggests that regulators are more likely to perceive sustainability regulation as being in place, and are also more confident that regulatory intervention can influence organisational behaviour. One possible explanation of this is that regulators, for whom regulatory compliance is taken as a given, may place greater trust in the capacity of regulation to drive behavioural changes within the insurance sector.

These findings reflect respondents' perceptions of regulatory availability and influence. To assess whether these perceptions correspond to formally observable regulatory conditions, a document analysis of sustainability-related insurance regulations was conducted and the findings are presented in the following section.

6.6 Document Analysis of Sustainability-Related Insurance Regulations

This section summarises the findings from the document review of sustainability-related insurance regulations across the fifteen countries and regions included in the study. The analysis follows the five observable regulatory features set out in the methodology chapter, and the results are presented in Table 7.

Based on overall Regulation Status and the aggregated sustainability regulation scores, seven jurisdictions—China, Indonesia, Malaysia, the Philippines, Sri Lanka, Taiwan, and Turkey—were identified as having explicit requirements for sustainability integration. These countries show clear regulatory expectations for embedding sustainability considerations within insurance supervision and reporting.

In contrast, Cambodia, Mongolia, South Korea, Thailand, and Viet Nam were classified as Partial or Developing. In these jurisdictions, sustainability requirements tend to be phased in gradually, encouraged rather than mandated, or limited in scope. Finally, Kazakhstan, Nepal, and Uzbekistan were categorised as Minimum, indicating that sustainability-related regulation for the insurance sector is largely absent or still at a very early stage of development.

Table 7

Comparative Overview of Sustainability Integration Regulations in 15 Countries/Regions

Country /Region	Summary of Requirements	Reference Source	(i) Mandate	(ii) Disclosure	(iii) Report	(iv) Alignment	(v) Insurance -specific	Aggregated Scores	Regulation Status
Cambodia	Governance and risk-management strengthening; no explicit ESG mandate.	Insurance Regulator of Cambodia (IRC) Non-Banking Financial Service Authority	**0.5**	**1**	**0.5**	**0.5**	**0**	**2.5**	Partial / Developing
China	Green Finance Guidelines and ESG Disclosure Guidance require sustainability integration.	People's Bank of China; National Financial Regulatory Administration China Banking and Insurance Regulatory Commission	**1**	**1**	**1**	**0.5**	**1**	**4.5**	Mandatory
Indonesia	POJK 51/2017 requires Sustainable Finance Action Plans and Sustainability Reports.	Otoritas Jasa Keuangan (OJK)	**1**	**1**	**1**	**0.5**	**1**	**4.5**	Mandatory
Kazakhstan	Prudential rules and IFRS-aligned reforms; ESG	Astana International Financial Centre（AIFC）Insurance and	**0**	**0**	**0**	**0**	**1**	**1**	Minimum

Country /Region	Summary of Requirements	Reference Source	(i) Mandate	(ii) Disclosure	(iii) Report	(iv) Alignment	(v) Insurance -specific	Aggregated Scores	Regulation Status
	integration not explicitly mandated.	Reinsurance Prudential Rules（PINS） Institute of Legislation and Legal Information of the Republic of Kazakhstan, Ministry of Justice							
Malaysia	ISSB-aligned sustainability reporting and ESG disclosure for insurers.	Bank Negara Malaysia (BNM) Climate Risk Management and Scenario Analysis（2025）, Advisory Committee on Sustainability Reporting：National Sustainability Reporting Framework（NSRF, 2024） Securities Commission Malaysia	**1**	**1**	**1**	**1**	**1**	**5**	Mandatory
Mongolia	ESG reporting guidance encouraged by FRC/IFC; not fully mandatory.	Financial Regulatory Commission（Mongolia）：ESG & Sustainability Reporting Guidance	**0.5**	**1**	**1**	**1**	**0**	**3.5**	Partial / Developing

Country /Region	Summary of Requirements	Reference Source	(i) Mandate	(ii) Disclosure	(iii) Report	(iv) Alignment	(v) Insurance -specific	Aggregated Scores	Regulation Status
Nepal	New Insurance Regulation includes sustainability-related supervisory requirements.	Nepal Insurance Authority, Insurance Regulation 2081 (2025)	**0**	**0**	**0**	**0**	**0.5**	**0.5**	Minimum
Philippines	ESG disclosure required under Insurance Commission Circular 2020-71.	Insurance Commission of the Philippines, Bangko Sentral ng Pilipinas	**1**	**1**	**1**	**1**	**0.5**	**4.5**	Mandatory
South Korea	KSDS (IFRS S1/S2-based) sustainability disclosure to become compulsory.	IFRS Foundation, IAS Plus	**0.5**	**1**	**1**	**1**	**0**	**3.5**	Partial / Developing
Sri Lanka	GRI-aligned sustainability reporting encouraged; ESG and sustainability regulatory frameworks are being established at an accelerated pace.	Insurance Regulatory Commission of Sri Lanka, Colombo Stock Exchange (CSE) – ESG Disclosure Standards (2023–2024) Central Bank of Sri Lanka (CBSL) – Sustainable Finance Roadmap (2019)	**0.5**	**1**	**1**	**1**	**0.5**	**4.0**	Mandatory
Taiwan	Financial Supervisory Commission (FSC) released the	Financial Supervisory Commission: Guidelines on	**1**	**1**	**1**	**1**	**1**	**5**	Mandatory

Country /Region	Summary of Requirements	Reference Source	(i) Mandate	(ii) Disclosure	(iii) Report	(iv) Alignment	(v) Insurance -specific	Aggregated Scores	Regulation Status
	Roadmap for Taiwan listed companies to align with IFRS Sustainability Disclosure Standards which requires TCFD/ISSB-aligned ESG disclosure for insurers.	Climate-related Financial Disclosures of Insurance Companies, Roadmap for Taiwan listed companies to align with IFRS Sustainability Disclosure Standards							
Thailand	Office of Insurance Commission (OIC) ESG roadmap and TCFD-aligned reporting requirements.	OIC, SEC Thailand, IFRS Foundation	**0.5**	**1**	**1**	**1**	**0**	**3.5**	Partial / Developing
Turkey	ESG reporting required under capital-market rules; insurance-specific ESG rules emerging.	Capital Markets Board of Turkey: Sustainability Principles Compliance Outline, IFRS Foundation	**1**	**1**	**1**	**1**	**1**	**5**	Mandatory
Uzbekistan	ESG integration not required; sustainability regulation emerging.	Insurers.uz – Regulatory Documents	**0**	**0**	**0**	**0**	**0**	**0**	Minimum

Country /Region	Summary of Requirements	Reference Source	(i) Mandate	(ii) Disclosure	(iii) Report	(iv) Alignment	(v) Insurance -specific	Aggregated Scores	Regulation Status
Viet Nam	ISSB-aligned sustainability reporting and ESG-related supervisory rules.	International Finance Corporation & State Securities Commission of Viet Nam: Sustainability Reporting Handbook, Acclime Viet Nam: IFRS and VAS in Viet Nam: The 2025 Guide	**0.5**	**1**	**1**	**1**	**0**	**3.5**	Partial / Developing

6.7 Alignment between Perceived and Observable Regulatory Environments

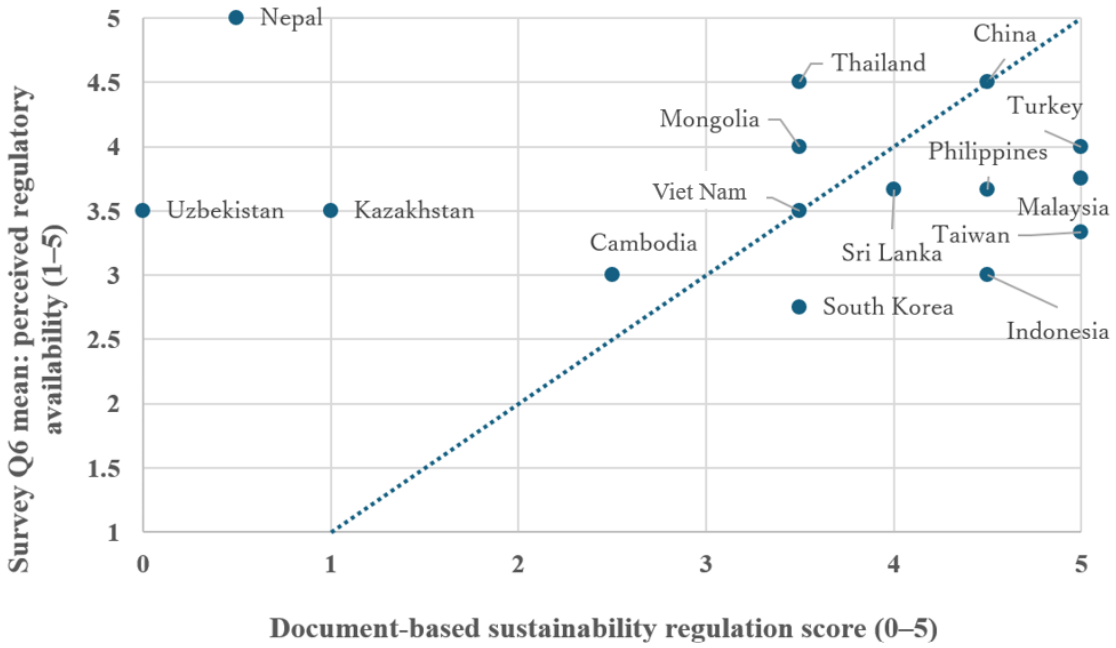
To assess the validity of the regulatory classification, this section compares two sources of evidence. First, the document-based regulatory scores derived for each country or region, as presented in Table 7 in Section 6.7. Second, the country or regional level average responses to Question 6 of the questionnaire, which asked whether sustainability integration is required by regulation. Figure 14 compares the observable regulatory conditions with respondents' perceived regulatory requirements.

The quadrant plot shows a broad alignment between the document-based sustainability regulation scores and respondents' answers to Question 6, indicating that perceptions generally correspond to the underlying regulatory environments across most countries and regions. However, notable discrepancies appear in the cases of Kazakhstan, Nepal, and Uzbekistan.

In the case of Nepal, the divergence may be explained by recent regulatory developments. Between July and August of the previous year, the Nepal Insurance Authority released the Nepal Sustainability Reporting Standards (NSRS) Public Consultation Document. This document is aligned with IFRS S1 and IFRS S2 and invited public comments from stakeholders.

Figure 14

Alignment between document-based and perceived regulatory environments (quadrant plot)



Note. This figure compares respondents' perceptions of the regulatory environment with conditions reflected in document-based regulatory assessments. The dotted reference lines are included to illustrate the extent to which document-based measures of sustainability regulation and survey-based perceptions of regulatory diffusion correspond across countries and regions.

As the formulation of Nepal-specific sustainability reporting standards is still underway, respondents—particularly those from supervisory authorities—may have factored these developments into their assessments. This may have resulted in higher perceived regulatory scores than those captured by the document-based classification.

A similar pattern can be observed in Uzbekistan. While explicit sustainability regulations for the insurance sector are not yet in force, recent institutional reforms may have shaped respondents' perceptions. Since 2023, the National Agency for Prospective Projects (NAPP), which reports directly to the President of Uzbekistan, has consolidated insurance and financial supervision. At the same time, the agency has initiated a transition toward international regulatory standards. It is therefore plausible that respondents' evaluations reflected these forward-looking policy signals rather than the current formal regulatory framework.

The comparison presented in this section should therefore be understood as a comparison between observable regulatory structures and perceived regulatory presence. Discrepancies between the two do not necessarily indicate error. Instead, they may reflect transitional regulatory environments, evolving policy trajectories, or differences in institutional awareness among respondents.

The results shown in Figure 14 indicate that the two measures broadly correspond across jurisdictions. This finding reinforces the credibility of using survey-based perceptions as a proxy for understanding regulatory conditions, while also highlighting the importance of contextual interpretation in countries undergoing regulatory transition. Across the sample, most respondents reported some form of

sustainability-related regulatory requirements, while the document review identified mandatory sustainability-integration requirements in seven jurisdictions.

6.8 Corporate Governance Culture Dimensions

To address Research Question 3 (RQ3), the study assessed the extent to which corporate governance culture across Asian jurisdictions reflects a stakeholder-oriented approach or, alternatively, a shareholder-oriented model grounded in agency theory. This assessment was conducted using four survey questions designed to capture key dimensions of governance orientation at the country or regional level.

Specifically, respondents were asked to evaluate the following four aspects:

(1) Primary organisational focus (Q8): whether companies should prioritise shareholders' interests above all others;

(2) Time horizon (Q9): whether corporate strategy should primarily emphasise short-term performance;

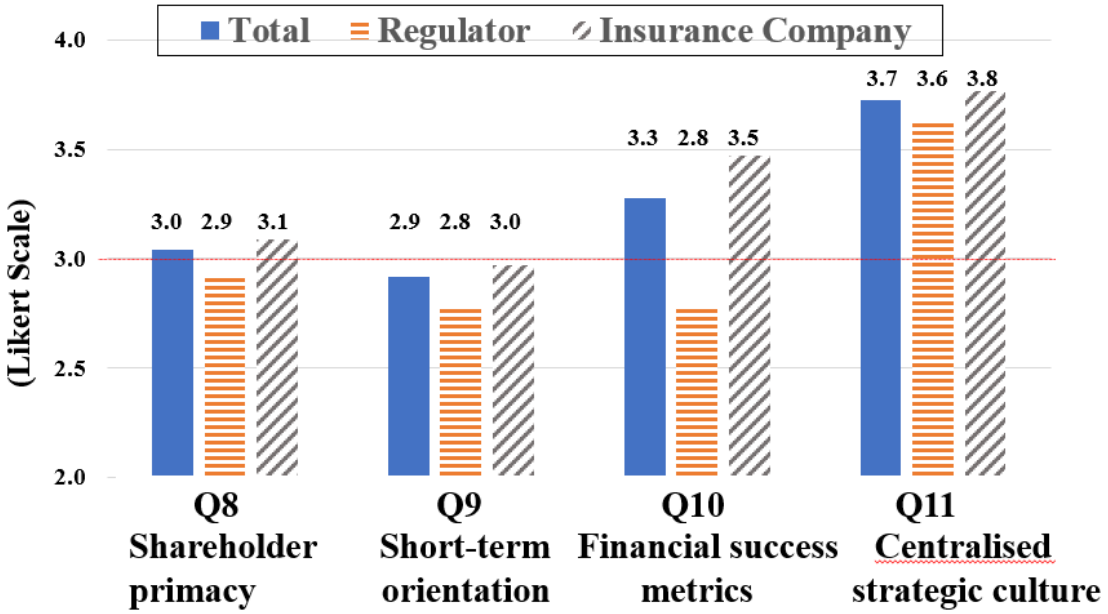
(3) Success metrics (Q10): whether corporate success should be measured mainly by financial indicators (e.g. return on equity, ROE);

(4) Strategic culture (Q11): whether organisational strategy is predominantly managed in a centralised manner.

For all four questions, higher scores on the five-point Likert scale indicate stronger alignment with a shareholder-oriented governance culture consistent with the agency theory, while lower scores indicate closer alignment with stakeholder-oriented governance. Figure 15 presents the results.

Figure 15

Survey Results: Corporate Governance Culture (RQ3)



Note. Bars show mean scores on a five-point Likert scale for four governance dimensions: shareholder primacy (Q8), short-term orientation (Q9), financial success metrics (Q10), and centralised strategic culture (Q11). Higher scores indicate a stronger agency-oriented governance orientation. Group means are shown for the full sample (n = 47), regulators (n = 13), and insurance companies (n = 34).

Across all respondents, the mean scores were 3.0 for Q8 (shareholder primacy), 2.9 for Q9 (short-term orientation), 3.3 for Q10 (financial success metrics), and 3.7 for

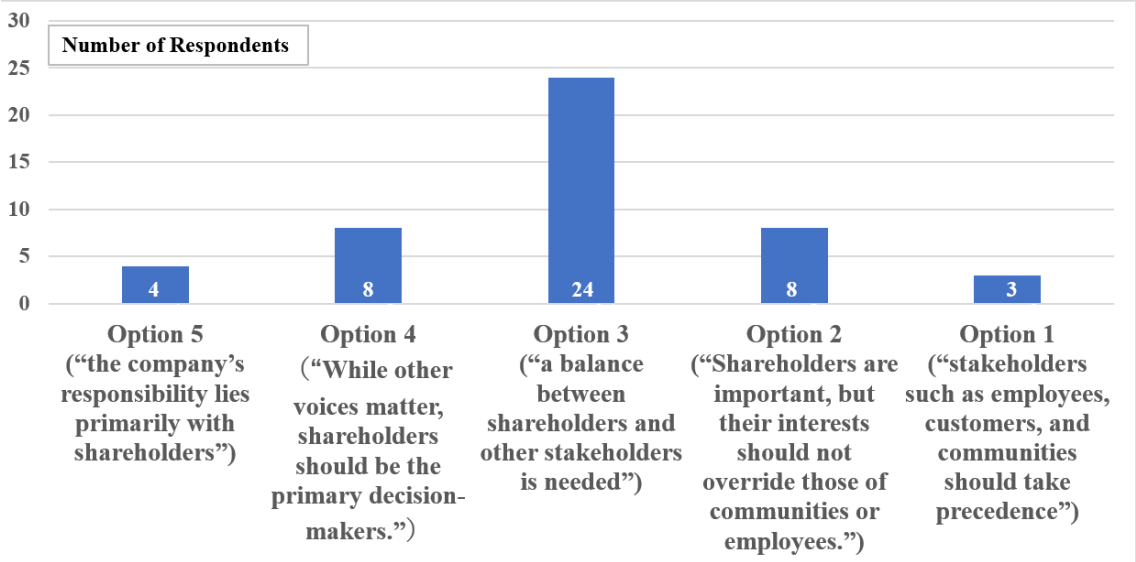
Q11 (centralised strategic culture). When regulators and insurance companies are considered together, the relatively moderate scores for Q8 and Q9 suggest that these dimensions do not exhibit strong alignment with agency-theory assumptions. By contrast, Q10 and Q11 show higher mean values. When a composite average across Q8 to Q11 is calculated, the resulting score is 3.2, indicating an overall agency-leaning governance orientation, while remaining close to the midpoint of the scale. Importantly, none of the mean scores exceeded 4, suggesting that even the most agency-leaning dimensions reflect moderate rather than strong endorsement of shareholder-oriented governance.

The results were then disaggregated by respondent group, with Figure 15 showing separate mean scores for regulators and insurance companies alongside the overall average. Insurance companies reported higher mean scores across all four questions, indicating a stronger alignment with agency-oriented governance. Their mean scores were Q8 = 3.1, Q9 = 3.0, Q10 = 3.5, and Q11 = 3.8. By contrast, regulators reported lower scores on most dimensions—Q8 = 2.9, Q9 = 2.8, Q10 = 2.8, and Q11 = 3.6—indicating relatively closer alignment with stakeholder-oriented governance except for Q11. When the neutral midpoint of 3 is used as a reference, regulators' scores cluster around or below this threshold on most dimensions, whereas insurance companies' scores are generally at or above it.

Looking more closely at Q8 (Figure 16), which examines shareholder primacy, the overall mean score was 3.0.

Figure 16

Survey Results for Q8 (Shareholder primacy)



Note. This figure summarises responses to Question 8, illustrating the primary focus areas identified by 47 participants. The bars represent the number of respondents selecting each option. Option 5 reflects the strongest level of shareholder primacy.

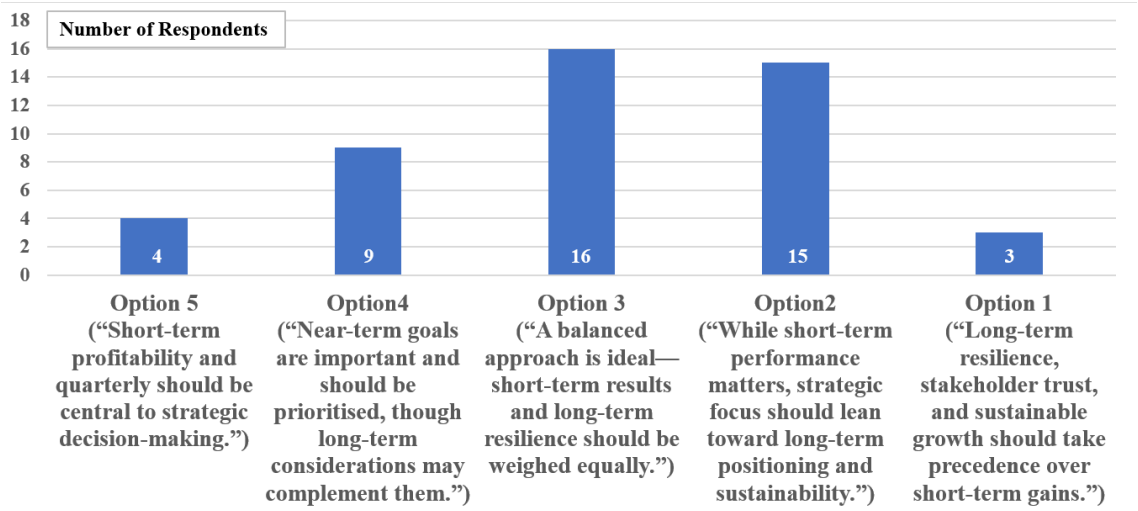
The distribution of responses shows that four respondents selected Opt5 ("the company's responsibility lies primarily with shareholders"), eight respondents selected Opt4 ("While other voices matter, shareholders should be the primary decision-makers."), 24 respondents selected Opt3 ("a balance between shareholders and other stakeholders is needed"), eight respondents selected Opt2 ("Shareholders are important, but their interests should not override those of communities or employees."), and three respondents

selected Opt1 (“stakeholders such as employees, customers, and communities should take precedence”). The predominance of the balanced response (Opt3), accounting for more than half of all responses, suggests limited polarisation between strong shareholder-first and strong stakeholder-first positions. Nevertheless, in several jurisdictions—including South Korea, Nepal, Sri Lanka, and Taiwan—responses indicating strong shareholder primacy (Opt5) were still observed, suggesting variation in governance culture across countries and regions. Having noted the references to specific countries or regions, it should be emphasised that these are provided for contextual illustration only. Although respondents are senior regulators and insurance professionals, they do not formally represent national positions, and the limited and uneven sample size across jurisdictions precludes country-level generalisation.

Q9, which captures the temporal orientation of governance, asks whether corporate strategy should prioritise short-term outcomes (Figure 17).

Figure 17

Survey Results for Q9 (Short-term orientation)



Note. This figure presents the distribution of responses to Question 9, illustrating the time horizons prioritised by respondents for strategic decision-making. Option 5 indicates the strongest focus on short-term profitability.

Higher scores indicate stronger short-term, shareholder-oriented preferences. The response distribution shows four respondents selecting Opt5 ("Short-term profitability and quarterly should be central to strategic decision-making."), nine selecting Opt4 ("Near-term goals are important and should be prioritised, though long-term considerations may complement them."), 16 selecting Opt3 ("A balanced approach is ideal—short-term results and long-term resilience should be weighed equally."), 15 selecting Opt2 ("Success is more than financial metrics—ESG outcomes must be considered."), and three selecting Opt1 ("Corporate success should be measured primarily by non-financial indicators such as ESG.").

While the balanced option again received the largest number of responses, those favouring a long-term orientation outnumbered those favouring a strongly short-term orientation, resulting in an overall mean score of 2.9, indicating a slightly longer-term orientation. Insurance companies recorded a mean score of 3.0, while regulators recorded 2.8, suggesting that regulators are marginally more inclined towards long-term sustainability considerations. Strong short-term orientations were observed among respondents from Mongolia, Sri Lanka, and Uzbekistan (all insurance professionals), while strong long-term orientations were reported by one Malaysian regulator and two respondents from Sri Lanka (one regulator and one insurance professional). Variation within the same country may reflect differences in organisational context or uneven diffusion of corporate governance codes.

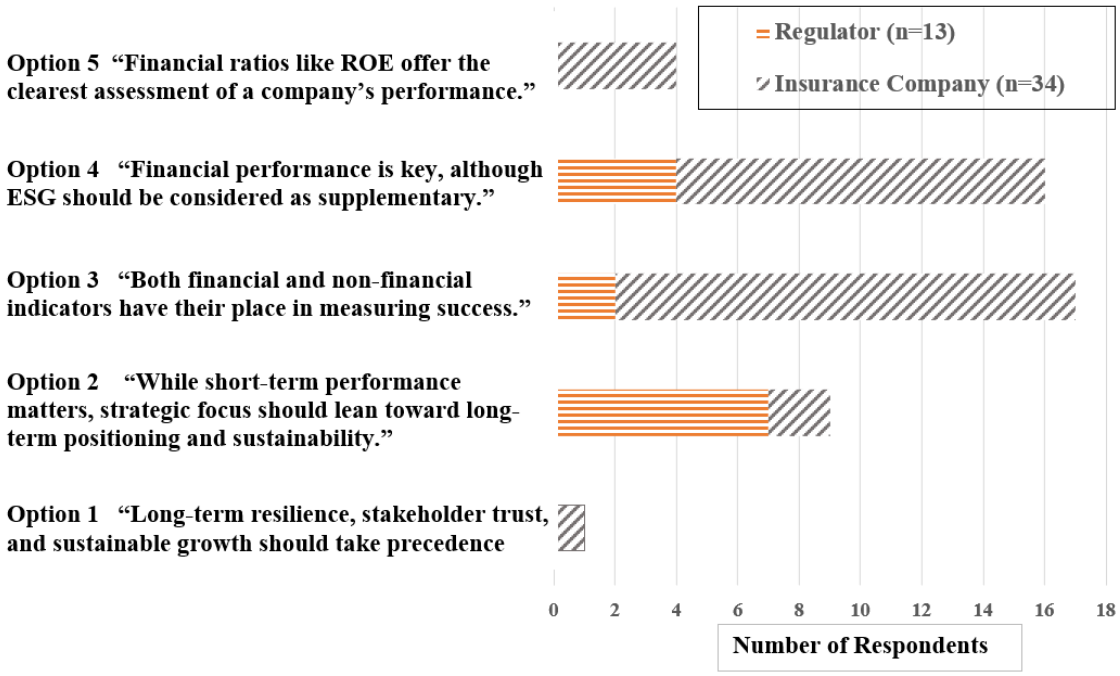
Regarding Q10 (success metrics), respondents were asked whether corporate success should be evaluated primarily through financial indicators. The overall mean score was 3.3, indicating a shareholder-leaning orientation. Insurance professionals reported a higher mean score of 3.5, while regulators reported a lower mean score of 2.8, indicating a clearer stakeholder-oriented stance among regulators.

Among senior insurance professionals, responses were distributed as follows (Figure 18): four respondents selected Opt5 (“Financial ratios like ROE offer the clearest

assessment of a company's performance."), 12 selected Opt4 ("Financial performance is key, although ESG should be considered as supplementary."), 15 selected Opt3 ("Both financial and non-financial indicators have their place in measuring success."), two selected Opt2 ("While short-term performance matters, strategic focus should lean toward long-term positioning and sustainability."), and one selected Opt1 ("Long-term resilience, stakeholder trust, and sustainable growth should take precedence over short-term gains.").

Figure 18

Survey Results for Q10 (Financial success metrics)



Note. This figure presents the responses to Question 10, which asked participants to identify the indicators they consider most important for evaluating corporate success. The bars represent the number of respondents selecting each success metric.

Thus, 16 out of 34 insurance-sector respondents indicated that financial indicators remain the central measure of corporate success, highlighting the continued prominence of shareholder-oriented evaluation criteria. By contrast, among regulators, no respondents selected Opt5, while seven out of 13 selected Opt2, indicating that non-financial indicators such as ESG are considered important measures of corporate performance. These responses were distributed across multiple jurisdictions suggesting broader governance patterns rather than isolated national cases.

Finally, Q11 (strategic culture) examined the degree of centralisation in organisational decision-making (Figure 19).

Figure 19

Survey Results for Q11 (Centralised Strategic Culture)

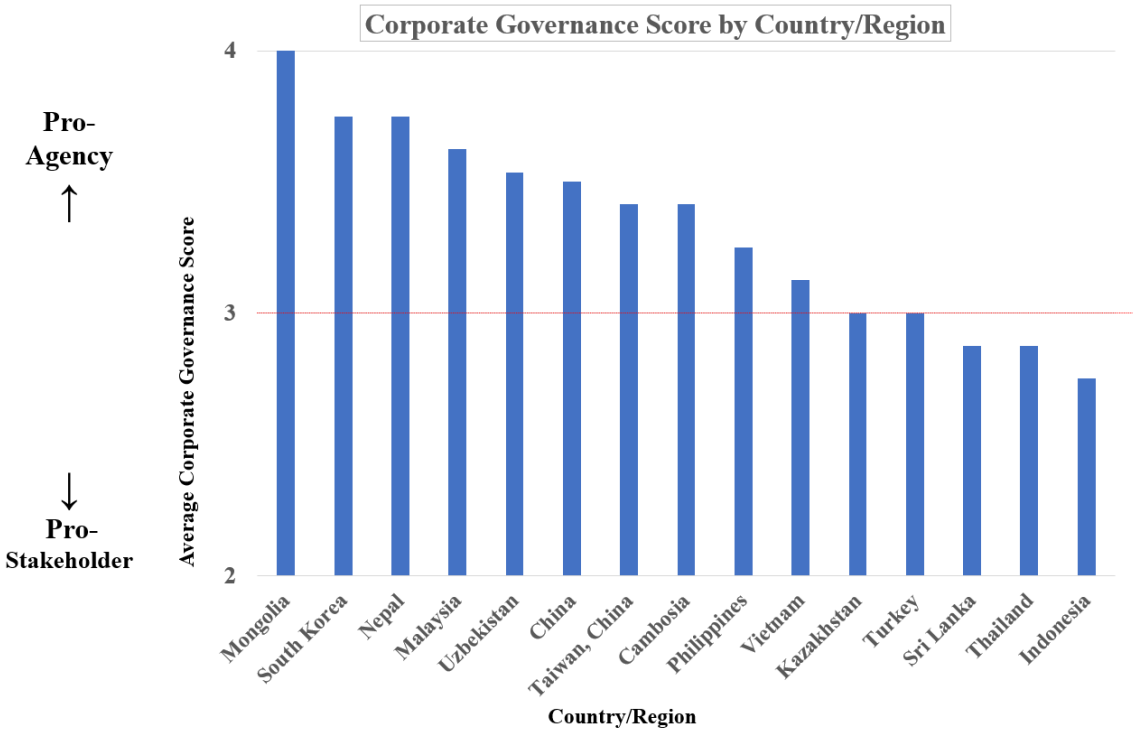
Overall, eight respondents selected Opt5 (“strategy is determined by top management with little input from others”), 20 selected Opt4 (“Most decisions come from the centre, although some feedback is welcomed.”), 17 selected Opt3 (“We operate with a mix of central leadership and participatory engagement.”), two selected Opt2 (“While central leadership exists, strategy development involves diverse perspectives.”), and none selected Opt1(“Our organisation encourages cross-level participation and decentralised input.”).

The overall mean score of 3.7 indicates a strong tendency towards centralised strategic control. With 28 out of 47 respondents indicating that strategy is largely decided at the centre, the results suggest that participatory, stakeholder-inclusive strategic processes remain limited. Given that stakeholder engagement constitutes the second core principle of the PSI—“to collaborate actively with stakeholders, including clients, regulators, and local communities, to advance sustainable development”—the limited diffusion of decentralised strategic cultures may represent a constraint on PSI implementation in certain contexts.

To provide an overview at the country and regional level, Figure 20 presents a ranking based on the average of responses to Q8–Q11.

Figure 20

Average Corporate Governance Score by Country or Region



Note. This figure presents the average corporate governance score for each country or region based on responses to Question 8-11. The red dotted line represents analytical thresholds based on the midpoint of the five-point Likert scale (value = 3). Higher scores indicate a more agency-oriented corporate governance culture.

Using 3 as the threshold value, ten countries and regions exhibit a shareholder-leaning (agency-oriented) governance profile, while five countries—Kazakhstan, Turkey, Sri Lanka, Thailand, and Indonesia—exhibit a stakeholder-leaning profile. These jurisdictions may therefore be considered comparatively more receptive environments for PSI adoption.

6.9 ANOVA Analysis of Response Differences Between Regulators and Insurance Companies

This section presents the results of a one-way ANOVA examining differences in response patterns between insurance regulators (n = 13) and insurance companies (n = 34). Although the regulator sample is smaller, the two groups are independent and the distribution of responses showed no substantial skewness. ANOVA is therefore appropriate, though the modest sample size inevitably limits statistical power and calls for some caution in interpretation.

The analysis covered ten variables (Q1, Q2, Q4, Q5, Q6, Q7, Q8, Q9, Q10 and Q11), excluding Q3. Across these items, Q10 (Financial success metrics) was the only question for which the two groups differed significantly ($p = 0.022$). (Table 8).

Table 8

Results of ANOVA for Q1, Q2, Q4, Q5, Q6, Q7, Q8, Q9, Q10 and Q11

Question	Mean (Regulators)	Mean (Insurance Companies)	p-value	Significant?
Q1 PSI Credibility	4.4	4.2	0.344	No
Q2 PSI Influence	4.3	3.9	0.083	No
Q4 Sustainability Literacy	2.9	3.1	0.572	No
Q5 Significance of Sustainability Literacy	4.5	4.1	0.144	No
Q6 Sustainability Regulation	3.8	3.4	0.184	No
Q7 Regulatory Impact on PSI Adoption	4.3	4.0	0.252	No
Q8 Shareholder primacy	2.9	3.1	0.610	No
Q9 Short-term orientation	2.8	3.0	0.566	No
Q10 Financial success metrics	**2.8**	**3.5**	**0.022**	**YES**
Q11 Centralised strategic culture	3.6	3.8	0.573	No

A robustness check using Welch's ANOVA, conducted to account for unequal group sizes, produced the same conclusion (Welch p = 0.029). No other statistically significant differences were observed.

For Q10, regulators placed greater weight on stakeholder-oriented indicators of corporate success, whereas insurers tended to prioritise financial metrics. This contrast points to a clear divergence in governance perspectives.

For the remaining items, although differences were not statistically significant, regulators generally reported higher scores for Q1 (PSI credibility), Q2 (PSI influence), Q5 (importance of sustainability literacy), Q6 (regulatory strength) and Q7 (regulatory impact). This pattern suggests a more favourable overall assessment among regulators.

A similar tendency emerged in the governance-related items (Q8–Q11). Across all four questions, regulators showed a more stakeholder-oriented response profile than insurers, indicating a consistent structural difference in how the two groups view governance priorities.

Given that respondents are senior professionals with substantial expertise and decision-making responsibilities, these systematic differences in response tendencies remain meaningful despite the limited sample size. Overall, while ANOVA identified only one statistically significant difference, the broader pattern of responses suggests that regulators and insurers diverge in their views on corporate success metrics, regulatory expectations and the governance context relevant to PSI adoption.

6.10 PSI Content Preferences

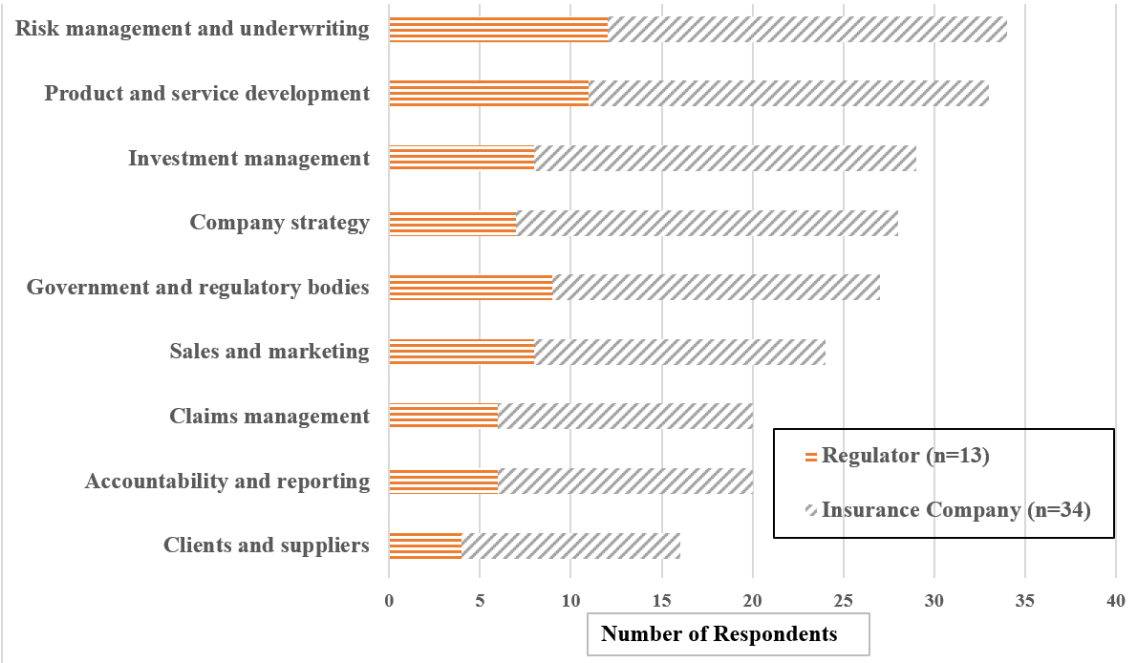
Having examined survey questions related to Research Questions 1 to 3, the overarching objective of this study is to provide policy relevant recommendations to the PSI Secretariat on how the PSI, as an international insurance framework, can be more

effectively mainstreamed within the Asian insurance market. From this perspective, it is reasonable to assume that the degree to which PSI related publications align with the practical needs of the insurance industry may itself constitute an important enabling factor for mainstreaming. Accordingly, the survey also examined the content preferences of the Asian insurance industry with respect to future PSI publications.

Respondents were asked, using a multiple-choice format, which segments of the insurance value chain they would most like future PSI publications to address. The value chain was defined in accordance with the categories presented in Table 1 (Section 1.1, PSI Code of Conduct) and encompassed nine areas, namely corporate strategy; product and service development; sales and marketing; risk management and underwriting; claims management; investment management; relationships with clients and suppliers; engagement with government and regulatory bodies; and accountability and reporting. The results are presented in Figure 21.

Figure 21

Survey Results for Q12: PSI Content Preferences (Multiple Choice)



The highest levels of demand were observed for the following value-chain areas, in descending order: (1) risk management and underwriting, (2) product and service development, (3) investment management, and (4) company strategy. Given that the insurance industry can be characterised as a professional risk-transfer sector—and that insurance companies are, by nature, risk-management organisations—it is unsurprising that risk management and underwriting attracted the strongest interest. As outlined in Table 1, PSI guidelines explicitly call for the integration of ESG issues into risk

management and underwriting practices. The survey results suggest that there is a strong demand for more concrete guidance, practical tools, and real-world examples illustrating how such integration can be implemented.

The second most highly ranked area, product and service development, is also explicitly addressed in the PSI guidelines, which encourage insurers to develop products and services that generate positive ESG impacts. Survey respondents indicated a strong desire for clearer and more accessible information on concrete examples of such products and services from different regions and markets.

Investment management, ranked third, reflects the importance of integrating ESG considerations into investment decision-making, as explicitly stated in the PSI guidelines. Respondents expressed interest in practical examples illustrating how insurers incorporate ESG factors into portfolio allocation, investment screening, and stewardship activities.

The fourth most requested area, company strategy, highlights the demand for good-practice examples among PSI signatories regarding the integration of ESG issues into organisational strategy and corporate governance. Although corporate governance structures vary across countries, regions, and cultures, respondents indicated that

guidance on board structures and governance arrangements that facilitate sustainability integration and effective decision-making would be particularly valuable.

Following these four areas, the remaining value-chain categories were ranked, in order of preference, as government and regulatory bodies, sales and marketing, claims management, accountability and reporting, and clients and suppliers. While overall ranking patterns were broadly similar between regulators and insurance companies, interest in the government and regulators category was notably higher among regulators, for whom it emerged as the third most important area.

As summarised in Table 1, PSI guidance related to engagement with governments and regulatory stakeholders emphasises external collaboration and dialogue, including policy support, cross-sector coordination, knowledge sharing, and public communication. In particular, respondents highlighted the role of the media as especially important, noting that public–private initiatives leveraging media engagement to raise ESG awareness were perceived as having high informational value.

Among the remaining four categories—sales and marketing, claims management, accountability and reporting, and customers and suppliers—relatively low interest was observed in sales and marketing and claims management. These functions are closely linked to insurance premium inflows and claims outflows, yet an examination of existing

PSI publications (Table 2 in Section 1.2) suggests that they have so far received limited attention. Given their potential influence on consumer behaviour, brand differentiation, and demand for sustainable insurance products, these areas represent underexplored domains. While PSI guidance already includes examples such as sustainability training for sales staff and environmentally conscious claims practices (e.g. repair-based settlements), the findings indicate that these areas have received relatively limited attention to date and may represent underexplored areas within the PSI framework.

Finally, the clients and suppliers value chain received the lowest level of expressed demand. However, this result may also suggest that ESG-related initiatives outside the insurance industry are not sufficiently recognised among current industry priorities. The PSI guidelines encourage insurers to promote ESG disclosure and reporting among clients and suppliers, foster the adoption of ESG principles, and support the integration of ESG issues into professional education and ethical standards. In this sense, the relatively low level of interest revealed by the survey may reflect a gap between current awareness and the systematic role that insurers could play in promoting ESG practices beyond their own business activities. This result does not suggest that this should be made an immediate priority; rather, it highlights an area where the PSI

Secretariat should further explore how to more effectively communicate and position such external initiatives within industry practice.

6.11 SDG Preferences (Multiple Choice)

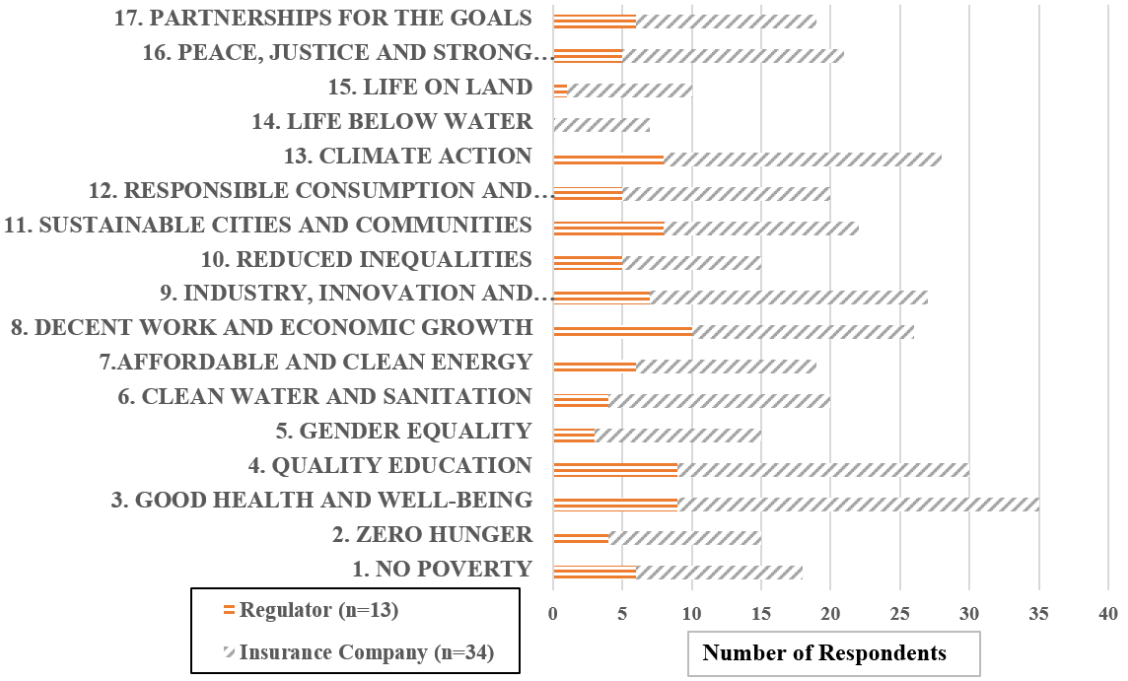
Question 13 (Q13) asked respondents which Sustainable Development Goals (SDGs) they would like the PSI to focus on more prominently in future publications. A review of the PSI website and existing publications presented in Section 1.2 and summarised in Table 2, indicated that explicit linkages between PSI activities and specific SDG targets are not always clearly articulated. In addition, there appears to be limited systematic mapping of how the PSI framework contributes to individual SDGs. This observation is based on the SDG–value chain mapping of PSI publications.

As indicated in Table 2, Goal 13 (Climate Action), Goal 14 (Life Below Water), and Goal 3 (Good Health and Well-being) are extensively covered in existing PSI publications, whereas Goal 5 (Gender Equality) receives notably limited attention.

The survey results, on the other hand, indicate that the Asian insurance industry shows particularly strong interest in SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), and SDG 13 (Climate Action), as shown in Figure 22.

Figure 22

Survey Results for Q13



Note. This figure summarises responses to Question 13, indicating which Sustainable Development Goals (SDGs) respondents would like to see more extensively covered in future PSI publications, differentiated by respondent type.

The next most highly ranked goals were Goal 9 (Industry, Innovation and Infrastructure) and Goal 8 (Decent Work and Economic Growth). While these themes appear sporadically in PSI publications, their relatively high ranking reflects the priorities of many developing Asian economies, where fostering innovative industries and achieving economic growth remain central policy objectives. In such contexts, insurers may be more inclined to adopt sustainable insurance practices when there are clear

examples demonstrating that sustainability integration can coexist with organisational growth. Countries and regions that expressed strong preferences for both Goals 9 and 8 include Indonesia, Malaysia, Nepal, the Philippines, Sri Lanka, Taiwan, Thailand, Uzbekistan, and Viet Nam, a group that broadly reflects economies prioritising growth and industrial development. Incorporating these themes more explicitly into PSI publications may therefore contribute to accelerating PSI adoption in Asia.

Although ranked somewhat lower, Goal 11 (Sustainable Cities and Communities), Goal 12 (Responsible Consumption and Production), and Goal 6 (Clean Water and Sanitation) also attracted notable interest. Drawing on the Sustainable Development Report 2025 (Sustainable Development Report 2025, n.d.), countries in Asia that are particularly vulnerable with respect to Goal 11—urban safety, resilience, and disaster preparedness—include Sri Lanka, which is identified as one of the most vulnerable countries. Notably, three respondents from Sri Lanka selected Goal 11 as a preferred PSI theme. Given Sri Lanka's exposure to floods and droughts and its efforts to promote urban greening as a resilience strategy, PSI publications addressing these issues could support PSI uptake in climate-vulnerable contexts.

A similar pattern is observed for Goal 12 (Responsible Consumption and Production). Countries facing acute challenges in this area tend to experience rapid

growth in resource consumption, low recycling rates, and severe plastic-waste pollution, particularly marine plastic leakage. Among the survey countries, Viet Nam is highlighted in the Sustainable Development Report 2025 as facing significant challenges in this domain, and respondents from Viet Nam also identified Goal 12 as a preferred PSI theme.

With respect to Goal 6 (Clean Water and Sanitation), Nepal is identified in the Sustainable Development Report 2025 as facing serious challenges, including limited access to safe drinking water, inadequate wastewater treatment, and groundwater contamination. Respondents from Nepal selected Goal 6 as a priority theme for PSI publications. Similar water-related vulnerabilities are observed in Indonesia, Malaysia, and Sri Lanka, all of which were also represented among respondents selecting Goal 6. While PSI has already produced publications related to water issues, expanding coverage to include international insurance-based solutions to water-related social challenges could further support PSI adoption across Asia.

Finally, 15 respondents expressed interest in Goal 5 (Gender Equality). Although this goal receives comparatively limited attention in existing PSI publications, addressing gender equality is widely recognised as a cross-cutting issue that the insurance sector as a whole should engage with. Providing PSI-based knowledge and examples related to gender equality would therefore be a valuable addition to future publications.

6.12 Understanding of Sustainability

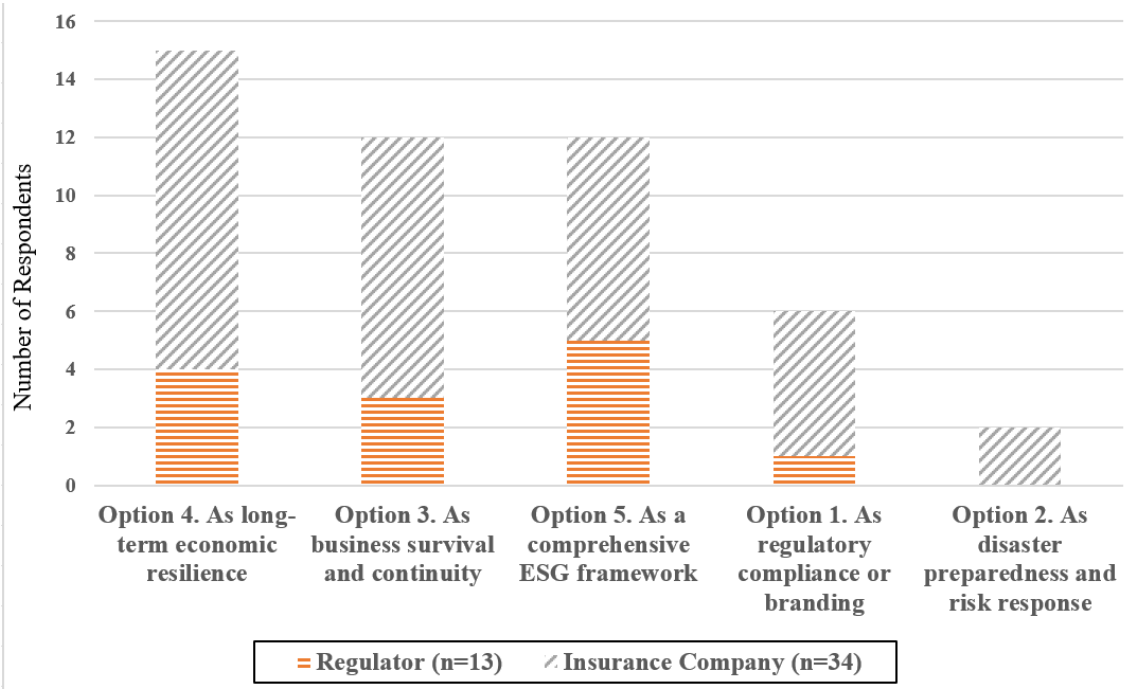
Question 14 (Q14) examined how respondents understand the term "sustainability" itself. This focuses on meanings and associations attached to the concept, rather than measuring sustainability literacy as operationalised in RQ1. While Research Questions 1, 2, and 3 investigate sustainability literacy, regulatory support, and corporate governance culture in relation to sustainability acceptance, all of these survey questions were formulated with ESG and the SDGs in mind. However, it is possible that the term sustainability carries different connotations across Asian contexts. Recognising such differences in interpretation is likely to be important for the effective adoption of the PSI, and this question was therefore included to capture these nuances.

Respondents were asked to select one option that most closely reflected their general understanding of sustainability. Five response categories were defined, ranging from a narrow interpretation focused on regulatory compliance and reputational considerations to a comprehensive ESG-based understanding encompassing strategy, operations, and stakeholder engagement (see Annex 1 for the full questionnaire).

Turning to the survey results for the Asian insurance sector, Figure 23 shows that the most frequently selected interpretation was Opt4 (long-term economic resilience), chosen by 15 of the 47 respondents.

Figure 23

Understanding of "Sustainability"



Note: The figure illustrates survey responses on how sustainability is understood in the insurance context, based on Question 14, with response patterns shown for regulators and insurance companies.

The next most frequently selected interpretations were Opt3 (business continuity and survival) and Opt5 (comprehensive ESG framework), each selected by 12 respondents. These were followed by Opt1 (regulatory compliance or branding), selected by six respondents, and Opt2 (disaster preparedness and risk response), selected by two respondents. These results suggest that, in Asia, sustainability is interpreted more strongly in terms of economic resilience than might have been anticipated. This tendency likely reflects the fact that in many Asian countries and regions, both governments and the

private sector place a strong emphasis on economic growth. Similarly, the relatively high selection of business continuity and survival reflects a widely shared business consensus that firms must continue to grow and remain viable in parallel with broader economic development.

In countries and regions where expectations regarding economic growth and business continuity are particularly strong, effective PSI adoption may therefore require demonstrating growth-oriented models that result from integrating ESG considerations into management. These patterns suggest that, in contexts where economic growth and business continuity are central to how sustainability is understood, PSI-related guidance may be more effectively received when it is framed in ways that demonstrate its compatibility with growth-oriented business models. This does not imply promoting PSI as a growth tool, but rather reflects the finding that, in many Asian markets, sustainability initiatives are more readily accepted when aligned with prevailing economic priorities. To promote PSI uptake in Asia, it may be desirable to localise examples and key performance indicators (KPIs) according to different stages of economic development, rather than presenting PSI solely as a set of universal global principles.

Interpretations of sustainability also differed between regulatory authorities and insurance professionals. Among regulators, five respondents selected Opt5, followed by

four selecting Opt4, three selecting Opt3, and one selecting Opt1. While ESG-based interpretations were the most common among regulators, the relatively small and closely distributed response counts also indicate comparable support for economic resilience and business continuity interpretations.

By contrast, among insurance professionals, eleven respondents selected Opt4, followed by nine selecting Opt3, seven selecting Opt5, five selecting Opt1, and two selecting Opt2. These results suggest that insurance professionals place a stronger emphasis on economic growth and business continuity in their understanding of sustainability than regulatory authorities.

6.13 PSI Integration and PSI Value to Organization

Although the number of PSI signatories in Asia remains limited, only one respondent among the 47 survey participants was affiliated with an organisation that is a PSI signatory. This respondent was therefore asked Question 15 (Q15), which examined the extent to which PSI has been integrated into the organisation's strategy and operations.

Respondents were asked to evaluate the level of PSI integration using a five-point Likert scale, 5 being most fully integrated and 1 being least integrated (See Annex 1 for the full questionnaire).

The response to Q15 was Opt3, indicating that PSI is partially recognised but applied only to a limited extent. Given the breadth of the insurance value chain, fully embedding PSI into organisational operations can be inferred to require substantial time and resources. Consistent with this expectation, no response indicated full integration; rather, PSI was perceived as being applied only in a partial manner.

Finally, Question 16 (Q16) asked the same respondent to assess the extent to which PSI has generated value for their organisation, again using a five-point Likert scale, where 5 indicates “very high value creation” and 1 indicates “no value creation”.

The result was again 3, indicating a neutral assessment in which PSI provides general direction but exerts limited direct influence. The respondent was affiliated with an insurance company in South Korea, and reported that while PSI is partially recognised within the organisation, it has not yet generated tangible value. South Korea currently has the largest number of PSI signatories in Asia, with ten signatory companies and one supporting institution. Given this context, a higher level of integration and a more positive evaluation of PSI might have been expected. However, a review of the organisation’s sustainability report revealed no explicit reference to PSI or its utilisation, suggesting that the organisation has not yet reached a stage at which it is actively evaluating the value of PSI.

Although the quantitative result is based on a single respondent, additional insights can be drawn from the open-ended responses associated with Q15.

For example, one respondent from a Taiwanese insurance company noted:

For most insurers in Taiwan, PSI is still in the awareness and partial implementation stage. While sustainability frameworks like ESG and TCFD are gaining traction, PSI integration into day to day strategy remains limited but is gradually improving… Moreover, without clear regulatory incentives or requirements, PSI adoption tends to be treated as a voluntary initiative rather than a strategic mandate. Therefore, more internal education, dialogue, and structured frameworks are needed to translate PSI from concept to practical action.

A similar observation was made by a respondent from an Indonesian life insurance association, who noted that *"While awareness of ESG principles has improved significantly, practical adoption remains at varying stages across organisations. Strengthening regulatory guidance, enhancing sustainability literacy, and aligning reporting frameworks would greatly support broader integration of PSI principles within the industry".*

Together, these verbatim quotations reinforce the finding that PSI integration remains at an early stage.

7 Discussions

This study analysed the level of awareness and acceptance of the PSI within the Asian insurance sector, as well as the factors that facilitate or hinder its mainstreaming, through a comparison of survey findings and existing literature. This chapter situates the empirical findings within both theoretical and practical contexts and discusses their implications for the expansion of PSI in Asia.

7.1 High Evaluation of PSI and the Limited Stage of Practical Implementation

The survey results indicate that PSI enjoys a high level of credibility and perceived significance among both insurance regulators and insurance companies in Asia. In particular, regulators tend to regard PSI as a well-designed and credible governance framework, characterised by a clear internal logic and strong relevance as an international reference framework for advancing sustainability-oriented management.

At the same time, caution is required when interpreting findings related to the practical integration of PSI. Questions that directly addressed the degree of organisational integration and the value generated by PSI (Q15 and Q16) received only a single response, making it difficult to generalise implementation levels across Asia. Nevertheless, even this response indicated that *PSI is recognised but only partially reflected in practice*,

suggesting that while PSI is conceptually well regarded, it remains at an early or transitional stage of implementation.

Accordingly, the results of this study should not be interpreted as evidence that PSI implementation is low per se. Rather, they suggest that PSI in Asia is currently in a process of transition from conceptual acceptance to practical integration. Given the breadth of the insurance value chain, integrating PSI across underwriting, risk management, investment, claims, and strategy is likely to require significant time and resources. As such integration progresses and examples of implementation are disclosed through sustainability reports and other public channels, the perceived value of PSI may become more widely shared, thereby broadening its adoption base in Asia. In this sense, the diffusion of good practice examples of PSI integration across the region can be expected to play an important role.

When considering such examples of good practice, this study has demonstrated that the meaning of sustainability varies significantly between countries/regions and organisations; therefore, it is necessary to examine them within a more localised context.

The pattern of ‘high evaluation and limited implementation’ indicates that, although the PSI is positioned as a credible normative framework, its implementation depends on three major institutional conditions: the improvement of sustainability literacy

within organisations, the introduction of sustainability regulations, and stakeholder-oriented corporate governance structures; this is consistent with previous research.

In other words, whilst the high scores in the survey regarding the reliability and influence of the PSI (Section 6.3) can be interpreted as evidence of its conceptual validity, the limited evidence regarding its adoption within organisations (Section 6.14) suggests that the implementation of the PSI is not yet established across the Asian market as a whole and remains in a developmental stage.

7.2 Comparison of Survey Findings and Literature Review: Re-confirming Key Variables

One of the key contributions of this study lies in its direct comparison of survey findings with insights from the literature review, allowing for empirical validation of the variables most relevant to PSI adoption.

The literature consistently identifies sustainability literacy and regulatory support as critical variables influencing PSI adoption, and these two factors were examined directly through Research Questions 1 and 2. The survey findings strongly reinforce this point: both variables were rated as having exceptionally high significance, and both were repeatedly identified as the most substantial barriers to PSI adoption.

This convergence of theoretical and empirical findings confirms that insufficient sustainability literacy and the lack of regulatory support represent the most critical challenges to PSI mainstreaming in Asia.

The literature also identifies overlap with other frameworks as a potential barrier. In the survey, this factor was assessed as *moderately influential*, but it did not reach the same level of importance as sustainability literacy or regulatory support. This may reflect the limited diffusion of frameworks such as TCFD or PRI in some of the surveyed countries and regions, resulting in a weaker perception of overlap with PSI.

In addition, the prominence of an operational factor—specifically, the absence of a dedicated PSI team—emerged as a notable finding. The lack of such organisational capacity may signal that ESG is not treated as a strategic priority. Insurance companies, more than regulators, tended to view this factor as influential, suggesting that insurance professionals are particularly aware of the organisational implications of ESG prioritisation.

If ESG is not perceived by management as contributing tangible value to the organisation, the likelihood of adopting a framework such as PSI—which explicitly seeks to integrate ESG into management—is understandably reduced. This is especially the

case where corporate governance culture remains strongly aligned with agency-theory assumptions, prioritising short-term profitability and growth.

As outlined in Section 6.9 and illustrated in Figure 20, many countries and regions in the sample display a stronger orientation towards agency-based governance. When managerial priorities are centred on short-term profit, the relative importance assigned to ESG considerations tends to diminish. This tendency was also reflected in the open-ended responses from Malaysia, which showed a more agency-oriented profile in the survey results (Section 6.3).

One respondent explicitly commented on the "need for regulatory clarity to balance profit motives with sustainability". This comment reflects a strong expectation for regulatory leadership. While such reliance on regulation could be interpreted as an externalisation of responsibility, it also highlights the need for the insurance industry itself to enhance sustainability literacy, engage more actively with stakeholders, and transition towards a stakeholder-oriented governance model in order to strengthen its social legitimacy.

These reinforce a central point highlighted in the literature, as also observed by Agnes et al. (2023), who note that many insurance executives continue to regard sustainability as secondary to short-term profitability. This was also evident in several

open-ended responses, where participants described ESG as valuable only when mandated or linked to immediate financial returns.

In this context, a key implication of the study is that both regulators and senior insurance leaders need a clearer understanding of how integrating ESG into management can support organisational value creation. Strengthening this understanding is essential for reducing barriers to PSI adoption and for positioning sustainability as a strategic, rather than peripheral, concern. More broadly, these patterns indicate that barriers to PSI adoption are shaped not only by short-term profit orientation but also by organisational development stages and corporate governance culture.

7.3 The Role of Insurance Regulators and the Importance of Regional Context

The findings of this study strongly highlight the role of insurance regulators in promoting the mainstreaming of PSI. Regulators consistently rated PSI higher in terms of credibility and significance than senior insurance professionals. Moreover, the analysis of corporate governance culture (RQ3) indicates that regulators have progressed further towards a stakeholder-oriented perspective.

A particularly notable difference emerged in responses to Q10, where regulators were more likely than insurance companies to support evaluating organisational success using non-financial indicators, such as ESG metrics. This long-term perspective aligns

with the social role of the insurance sector in supporting health, resilience, and social stability. Society increasingly expects insurers to treat environmental and social challenges as matters of direct relevance to their business.

By providing guidance grounded in the stakeholder theory, regulators can encourage insurance companies to strengthen their social contribution, thereby enhancing public trust in the insurance sector (Freeman, 1984; Freeman, 2010). Survey results also suggest that regulators perceive a higher likelihood of PSI adoption when sustainability awareness among employees increases or when sustainability-oriented regulations are introduced.

This view is borne out by the empirical evidence. As shown in Figure 12, 28 out of the 47 respondents reported the existence of regulations requiring the integration of ESG considerations. These respondents also expressed a proactive attitude toward PSI adoption when clear regulatory guidance is provided. This is broadly consistent with the document-based analysis, which identified sustainability-integration requirements are mandatory in seven of the fifteen jurisdictions examined. Taken together, the findings highlight the enabling role of regulatory clarity in helping insurers move from voluntary endorsement towards more tangible PSI implementation. In countries or regions where

sustainability-integration regulations are not yet fully established, the introduction of clear and binding regulatory requirements is likely to play a catalytic role.

These findings underline the importance of regulators taking the lead in articulating a stakeholder-oriented governance vision and translating it into concrete regulatory and institutional frameworks. At the same time, definitions and priorities related to sustainability vary considerably across regions, cultures, and social contexts. Accordingly, PSI promotion should avoid a uniform application of ESG concepts and instead adopt flexible, context-sensitive interpretations.

For example, the responses from disaster-prone regions shows that sustainability-oriented insurance management may centre on disaster recovery, resilience building, and inclusive insurance for vulnerable populations. This reflects patterns observed in the survey data, where respondents from climate-vulnerable regions emphasised resilience-related priorities. Framing PSI guidelines within disaster-risk-reduction and resilience contexts may therefore enhance their relevance.

Furthermore, the importance of localisation was repeatedly highlighted in the open-ended responses (Section 6.4). These qualitative findings suggest that implementation challenges are often context-specific. These responses emphasised the need for local training resources, measurable KPIs and cross-departmental coordination

to implement PSI, and suggested that, in order to mainstream PSI, it would be effective for regulatory authorities to develop guidance, case studies and frameworks tailored to the specific contexts of each country and region.

7.4 Corporate Governance Culture and Receptiveness to PSI

The analysis of corporate governance culture confirms that it constitutes an important contextual factor influencing PSI adoption. While agency-theory-based governance—emphasising short-term financial performance and shareholder value—remains prevalent in the Asian insurance sector, the results also indicate a transitional phase, in which organisations seek a balance between shareholder and stakeholder orientations.

More than half of respondents emphasised balancing shareholder and stakeholder interests (Q8), and approximately two-thirds favoured either a balanced or long-term time horizon (Q9). These findings suggest that the conditions for a broader diffusion of stakeholder-oriented governance are emerging in Asia.

At the same time, the strong emphasis on financial indicators such as ROE among insurance companies (Q10), and the highly centralised nature of strategic decision-making (Q11), indicate that ESG-oriented management remains limited. Taken

together, the results suggest a gradual shift from shareholder-dominant governance towards stakeholder-oriented governance.

A further explanation for the limited practical uptake of the PSI in Asia lies in the mismatch between institutional frameworks and organisational culture. As Sato and Yamada (2020) note, organisational behaviour is shaped not only by formal rules and structures, but also by the deeper cultural assumptions that influence how those rules are understood and put into practice. Institutional reforms on their own rarely lead to meaningful behavioural change unless they are accompanied by a shift in organisational culture.

In this study, even when insurers formally endorse the PSI, their internal governance culture—often marked by a short-term focus on performance and shareholder-driven decision-making—can prevent these principles from being reflected in day-to-day practice. This gap between institutional design and organisational culture helps to explain why PSI adoption in many Asian markets remains largely symbolic, despite the presence of a global framework intended to guide sustainable insurance.

As PSI is explicitly grounded in the stakeholder theory, organisations with stronger stakeholder orientations are likely to adopt it more readily, whereas agency-oriented organisations may exhibit greater resistance. This highlights that PSI is

not merely a technical guideline but a framework requiring a deeper transformation in managerial values and governance philosophy. Successful adoption therefore requires sustained engagement with organisational leadership and the gradual integration of sustainable insurance principles into corporate vision and mission.

8 Conclusion

The aim of this study was to examine why the PSI has not been fully adopted or implemented in practice within the Asian insurance industry, despite widespread conceptual support for sustainability principles. To address this challenge, this study sought not only to identify the structural and organisational factors constraining the uptake of the PSI, but also to present actionable recommendations (Chapter 9) to the PSI Secretariat to enhance the effectiveness and relevance of the PSI in Asia. By conducting an integrated analysis of sustainability literacy, the regulatory environment and corporate governance culture, this study contributes to both academic and policy-oriented discussions on sustainable insurance.

The main contributions of this study can be summarised in three points. First, as a theoretical contribution, the study presented an integrated analytical model that explains the adoption of PSI through the interaction of sustainability literacy, regulatory support

and corporate governance culture, therefore advancing existing research that treats these factors separately. Second, as a methodological contribution, the study demonstrated that "Performance × Significance Mapping" is an effective policy-relevant analytical tool for identifying priority gaps between perceived importance and actual organisational capacity in governance areas related to sustainability. Third, as a practical contribution, the study provided the PSI Secretariat with specific design suggestions for evolving from the current situation, where PSI remains primarily a normative framework, towards a more effective implementation-support architecture that is aligned with the institutional realities of the Asian insurance market.

This study examined the factors promoting or hindering the mainstreaming of PSI in the Asian insurance industry through a comparative analysis of survey results and existing literature. By integrating empirical data obtained from insurance regulators and senior professionals at insurance companies with theoretical insights from sustainability and governance research, it presents a framework for understanding why, despite PSI being strongly accepted conceptually, its integration into practice remains limited.

Four key conclusions emerge from this study.

First, although PSI is highly valued at a conceptual level in Asia, its integration into business practices remains limited. Insurance regulators tend to view PSI more

positively than insurance companies, indicating a gap between awareness and implementation. This gap reflects the fact that PSI is in a transitional phase, moving from a stage of normative support towards practical adoption.

Second, a lack of sustainability literacy and limited regulatory support were identified as the most significant barriers to the mainstreaming of PSI. These factors were consistently highlighted in both the literature review and the questionnaire survey. These findings suggest that there is an urgent need to strengthen human and organisational capabilities and capacities, and to provide clearer regulatory support.

Third, corporate governance culture plays a decisive role in the adoption of PSI. Whilst organisations with a strong stakeholder orientation tend to be receptive to PSI, those with an agency orientation place greater emphasis on short-term financial indicators and tend to show a relatively weaker commitment to ESG integration. The asymmetry observed between insurance regulators and insurance companies highlights the importance of regulatory leadership in promoting PSI.

Fourth, the importance of regional context has been confirmed. In many Asian countries, sustainability tends to be understood not as a comprehensive ESG concept, but from the perspective of economic development and business continuity. Promoting PSI whilst ignoring this context carries a high risk of limited acceptance. Therefore,

localisation—adapting PSI guidance to suit regional stages of development, social vulnerabilities and the characteristics of disaster risk—is essential. If the PSI can be redesigned and applied across the entire insurance value chain in a manner that reflects these contextual factors, PSI has the potential to evolve into a more widely accepted international standard.

Insurance companies are not only risk underwriters but also major institutional investors, wielding significant influence over future development pathways towards a sustainable society. If the PSI is more deeply embedded in insurance industry's strategies, there is a high likelihood that both public trust in the insurance sector and its long-term sustainability will be strengthened.

In conclusion, the PSI is not being rejected in Asia. Rather, it can be said that it has reached a stage where broader mainstreaming across the region is possible through appropriate regulatory support, improved sustainability literacy, and context-sensitive implementation strategies.

9 Policy Recommendation

Based on the empirical findings and comparative analysis presented in this study, this chapter sets out policy-oriented recommendations for UNEP FI and the PSI

Secretariat to accelerate the mainstreaming of the PSI within the Asian insurance industry. These recommendations are based on the three structural gap variables identified in Section 2.2 (Key Structural Gaps)—namely, sustainability literacy, regulatory support and corporate governance culture—and aim to support the transition from conceptual endorsement of the PSI to effective operational integration.

9.1 Evolve the PSI into an implementation-support architecture

The findings of this study reveal that PSI is recognised by Asian insurance regulators and insurance professionals as a framework of very high credibility and importance. PSI is widely accepted as an authoritative international standard for promoting sustainability within the insurance industry. However, this strong normative evaluation does not necessarily translate into widespread and consistent implementation at the operational level.

The effective implementation of PSI requires a long-term transformation process involving the entire organisation. This process depends not only on formal endorsement but also on improving the sustainability literacy of employees, including senior management; the existence of a regulatory framework that encourages sustainability integration; and the fostering of a governance culture that reflects stakeholder voices in

management decisions. Through the interaction of these conditions, the PSI will permeate the entire insurance value chain.

Consequently, the adoption of PSI in Asia cannot be achieved through a normative framework alone. What is required is an “implementation-support architecture” that outlines concrete methods for integrating ESG into various operations underlying the nine value chains of insurance industry. This should include step-by-step procedures, practical tools and case studies across various business domains, such as underwriting, risk management, product development, investment and corporate strategy.

Furthermore, many Asian insurers are currently in the process of building organisational capacity. For PSI to take root, it is essential that the secretariat adopts a “accompanying” approach, providing support in stages according to each company’s level of maturity. By positioning PSI not as a static set of principles but as an evolving practical framework, its relevance and uptake will be significantly enhanced.

9.2. Strengthen sustainability literacy as a core capability for PSI adoption

As institutions with a public role, insurance companies bear a social responsibility to enhance sustainability literacy not only within their organisations but also amongst a wide range of stakeholders. This responsibility is becoming increasingly

important as climate change, biodiversity loss, environmental pollution and social inequality become more severe and focused.

The empirical findings of this study indicate that sustainability literacy is a decisive driver of PSI adoption. Where understanding of ESG and the SDGs is insufficient, sustainability tends to be perceived as abstract, peripheral or merely a matter of reputation management, and PSI is likely to remain limited to symbolic support.

Consequently, PSI should place greater emphasis on sustainability literacy within its guidelines including Code of Conduct reviewed in Section 1.1 (Table 1). There is a need to develop educational content that clearly explains the basic concepts of ESG, global challenges and their relevance to insurance operations. In this way, the PSI can function not only as a governance framework but also as a knowledge base that enhances the professional capabilities of the insurance industry as a whole.

Improving sustainability literacy not only lowers the barriers to adopting the PSI but also contributes to strengthening the insurance industry's social legitimacy, public trust and long-term resilience. Therefore, investment in sustainability literacy should be viewed not merely as a supporting measure for the uptake of PSI, but as a strategic intervention to reinforce the insurance industry's public role.

9.3. Leverage regulatory clarity to balance profit motives with sustainability

Contrary to common perception, this study has revealed that sustainability-related regulations are already expanding in many countries and regions across Asia. As a result, it has identified countries and regions where a regulatory environment exists that is highly likely to provide institutional support for the adoption of PSI.

In these countries and regions, the uptake of PSI can be accelerated through active and ongoing dialogue with insurance regulators. By aligning national sustainability visions and strategies with PSI guidance, PSI is more likely to be recognised not as an external or foreign framework, but as a practical tool that complements national policy.

Of particular importance is the fact that senior professionals of the insurance companies in Asia are strongly calling for clear guidance from regulators. PSI must not be passive; merely waiting for regulatory developments is insufficient. The Secretariat should proactively engage with regulators, sharing knowledge and providing technical advice, and position PSI as a practical tool that supports supervisory objectives.

By strategically focusing on countries and regions where regulatory developments are evident, the adoption of PSI across Asia becomes a realistic and achievable goal.

9.4. Promote a cultural shift toward stakeholder-oriented governance

This study indicates that corporate governance culture in Asia is in a transitional phase, shifting from a traditional agency-oriented approach to a stakeholder-oriented one. This transition, however, is far from complete. More needs to be done to embed stakeholder centred values firmly within the governance culture of the insurance industry.

Simply introducing guidelines such as the PSI is not enough to nurture and sustain a genuinely stakeholder oriented approach. What is required is a deeper shift—a fundamental rethinking of the industry's role and its responsibilities in relation to society.

The UN Guiding Principles on Business and Human Rights illustrate how global standards gain real meaning when international organisations, regulators and industry participants work together to shape expectations and behaviour (Ruggie, 2011). Although the adoption of PSI remains voluntary, there is strong potential for regulators and insurers to collaborate more closely in placing stakeholder perspectives at the centre of governance.

The insurance industry is uniquely positioned to drive this change. Through underwriting, insurance companies determine who is protected and who is not. Through their investment decisions, they can influence who would be the recipients of long-term financial support. These decisions surely have direct implications for the human rights,

social equity and environmental sustainability. In this respect, insurance companies are more than just financial intermediaries. They play pivotal roles to diversify the risk and improve social resilience.

Therefore, strengthening stakeholder-oriented governance is not merely desirable, but inevitable for the insurance industry to succeed in the long-term. PSI can play a significant role in realizing this revolutionary transformation. This includes improving understanding of human rights across the sector and among its stakeholders, deepening awareness of how insurance activities affect different groups, and encouraging insurers to incorporate stakeholder perspectives into ESG strategies and everyday decision making.

Regulators are important partners in this process. By working more closely with them, PSI can help ensure that stakeholder oriented governance is reflected not only in formal regulatory expectations but also in daily business practices. Ultimately, moving beyond formal commitments towards meaningful change requires alignment between frameworks and organisational culture. Only then can this transition truly take root.

Responses regarding primary focus and time horizon reviewed in Section 6.8 (Figure 16 and 17) suggest that many organisations place importance on balancing

shareholder interests with stakeholder interests, and short-term results with long-term resilience.

Stakeholder-oriented governance norms are beginning to take root in Asia. UNEP FI and the PSI Secretariat are well-positioned to support and accelerate this cultural shift in collaboration with national regulators. Effective measures include dialogue with management, the provision of governance guidance, and the promotion of long-term value creation frameworks. Furthermore, by prioritising support for countries and regions where stakeholder orientation is already relatively strong, early success stories can be generated, thereby enhancing the ripple effects across the entire region.

9.5 Publish and disseminate implementation-focused PSI guidance tailored to Asian priorities

The term “PSI publications” used in this section refers not only to the 28 existing publications reviewed in Section 1.2 (Table 2), but also to future publications produced by the PSI Secretariat. These are primarily institutional guidance documents intended for insurance companies and regulators, rather than public relations materials for the general public.

Analysis of existing publications has revealed that, whilst PSI provides a comprehensive normative framework, the content and format do not always adequately reflect the practical challenges faced by the Asian insurance industry. This section

proposes how future PSI publications should be designed and prioritised to strengthen implementation support in Asia.

According to the findings, there is particularly high interest in Asia regarding SDG 3 (Good Health and Well-being), SDG 4 (Quality Education) and SDG 13 (Climate Action). Given its relevance to education, capacity building and long-term sustainability, there are high expectations for publications on SDG 4.

On the other hand, SDG 5 (Gender Equality) is of paramount importance yet has not been adequately addressed. From the perspective of inclusive insurance, gender equality is a key social dimension through which the insurance industry can contribute to sustainable development, and PSI publications should address this goal more explicitly and robustly.

As insurance markets in Asia are diverse, the relevance of the SDGs varies significantly from one company to another. To enhance the usability of PSI publications, it would be effective to clearly map which SDGs each publication addresses.

Furthermore, the priorities of SDGs 8 (Decent Work and Economic Growth), 9 (Industry, Innovation and Infrastructure), 11 (Sustainable Cities and Communities), 12 (Responsible Consumption and Production) and 6 (Clean Water and Sanitation) vary significantly across countries and regions, reflecting region-specific development

challenges. PSI publications could further enhance their relevance by setting themes that reflect these regional characteristics.

International insurance approaches relating to SDG 11 are particularly useful in disaster-prone countries (e.g. Sri Lanka), SDG 12 in rapidly industrialising countries (e.g. Viet Nam), and SDG 6 in countries facing severe water-related risks (e.g. Nepal, Indonesia, Malaysia and Sri Lanka).

Furthermore, as insurance executives in Asia tend to view sustainability as linked to economic development and business continuity, the highest level of interest within the value chain lies in risk management and underwriting, and product and service development. Future PSI publications should prioritise these areas and demonstrate how the integration of sustainability supports risk management capabilities and the development of commercially viable insurance solutions.

10. Limitations of the Research

This study has several limitations that should be taken into account when interpreting the results.

First, the sample size is relatively small. In particular, the number of responses from insurance regulators is limited, which restricts the statistical power and

generalisability of the findings. Furthermore, the imbalance in the number of responses between regulators and the insurance companies may affect the robustness of comparisons between the two groups.

Second, this study relies on self-reported data. Data collected via questionnaires and open-ended responses are susceptible to social desirability bias and strategic responses. As sustainability and PSI are normative concepts, responses may not fully reflect actual organisational behaviour.

Third, differences in institutional and market contexts across countries or regions influence the analysis. Factors such as regulatory regimes, the stage of development of insurance markets, organisational size, ownership structure and business sectors may independently influence the adoption of PSI, but this study does not statistically control for these.

Fourth, sustainability literacy is not measured directly using objective indicators. This study focuses on respondents' perceptions of organisational literacy and does not assess practical dimensions such as employees' actual literacy levels, internal training provision, KPIs, or governance processes. As a result, the analysis captures how sustainability literacy is understood at the managerial level, rather than how it is distributed and operationalised across the organisation.

More importantly, this leaves a substantive question unanswered. Although the study assesses the perceived organisational performance of sustainability literacy and its perceived significance for PSI adoption, it does not establish whether objectively higher levels of sustainability literacy among employees are in fact associated with greater implementation of PSI in organisational practice. In other words, the study captures how senior respondents understand the role of literacy, but it cannot determine the extent to which those perceptions correspond to employees' actual capabilities or to the degree of PSI implementation within firms.

Future research could therefore make a valuable contribution by directly measuring sustainability literacy and examining its relationship with observable implementation outcomes.

Fifth, the study achieved a stronger degree of triangulation for regulation than for the other explanatory dimensions. Regulatory support could be examined not only through respondents' perceptions but also through documentary analysis of actual regulatory texts. By contrast, sustainability literacy and corporate governance culture were assessed primarily through perceptions and interpretive framing. This imbalance does not invalidate the findings, but it does mean that the evidential basis is stronger for regulation than for the other two variables.

Sixth, a further conceptual limitation is that the analysis of corporate governance culture remained largely within a binary contrast between agency theory and stakeholder theory. While this framing was analytically useful, it did not extend to institutional analysis of how formal governance arrangements and deeper organisational norms interact. In many Asian contexts, formal governance institutions may increasingly reflect shareholder-centred and agency-oriented practices, while organisational culture remains more stakeholder-oriented in practice. This institutional–cultural duality may help explain why the PSI is sometimes adopted symbolically rather than substantively, but that question lies beyond what the present study was able to examine directly.

Seventh, although the study deals with a comparison between Asia and Europe, the survey was conducted in Asia only. The discussion regarding Europe relies on secondary literature, and a direct comparison is not possible. This study does not claim to make a symmetrical comparison between Asia and Europe, but rather uses Europe as an institutional reference point.

Finally, as this study is cross-sectional, it cannot capture temporal changes in PSI adoption. The implementation of PSI is a gradual and evolutionary process, and longitudinal research is required to assess causal relationships and long-term impacts.

Given these limitations, the findings of this study are “exploratory and suggestive” rather than definitive. Future research is expected to further deepen understanding of the PSI recruitment process through measures such as expanding the sample size, introducing objective literacy indicators, conducting cross-regional comparative studies, and utilising mixed-methods approaches combining longitudinal and qualitative research.

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(UNEP FI, 2026) — Just transition finance: Case studies from banking and insurance

Annex 1

Survey questions

Introduction

Thank you for participating in this survey on the Principles for Sustainable Insurance (PSI) and sustainability practices in the insurance sector. Your insights will contribute to a better understanding of how PSI is perceived, adopted, and supported across different countries/regions and institutional contexts.

Before we begin, please indicate the following:

- Your country or region of affiliation:
- Your organisational affiliation:
  - ☐ Insurance regulator
  - ☐ Insurance association/Research Institute
  - ☐ Insurance company
  - ☐ Other (please specify): _____

Response Scale

For all questions in this survey, please use the following 5-point scale:

Score	Meaning
5	Very High / Strongly Agree / Highly Influential / Very well / Very likely / **Fully embedded**
4	High / Agree / Influential / Fairly well / Likely / **Well integrated**
3	Neutral / Uncertain / Moderately Influential / Somewhat / Uncertain / **Partially recognised**
2	Low / Disagree / Slightly Influential / Not much / Unlikely / **Minimally recognised**
1	Very Low / Strongly Disagree / No Influential / Not at all / Very unlikely / **Not recognised**

This scale is used consistently throughout the questionnaire to allow for cross-question comparison and analysis.

(PSI Perception vs Significance)

Question 1: Perception of the Principles for Sustainable Insurance (PSI)

How do you perceive the overall credibility of PSI as a governance framework within the insurance sector? Please select the option that best reflects your view:

5. Very High – PSI is a well-designed, credible framework with clear principles and governance logic.
4. High – I view PSI as a useful and well-structured set of principles.
3. Neutral: PSI is neither particularly good nor poor.
2. Low – PSI lacks clarity or coherence as a governance tool.
1. Very Low – PSI is poorly structured or lacks credibility as a guiding framework.

Question 2: Significance of PSI for Driving Sustainability

In your view, how influential is the PSI in shaping real-world sustainability outcomes within the insurance industry?

5. Highly Influential – PSI plays a critical role in driving meaningful sustainability practices and long-term transformation.
4. Influential – PSI contributes positively to sustainability practices in the insurance sector.
3. Moderately Influential – PSI has some relevance, but its practical influence is limited or unclear.
2. Slightly Influential – PSI's role in shaping sustainability outcomes is minimal.
1. Not Influential – PSI has no impact on sustainability practices in the insurance sector.

(Barrier for adopting PSI)

Question 3. To what extent does each of the following pose a barrier to your organisation's adoption of PSI? Please rate each item on a scale from 1 (Not a barrier) to 5 (Major barrier).
- ESG is not currently a strategic priority, so PSI guidance is not viewed as necessary
- Existing frameworks (e.g. GRI, TCFD) already cover similar areas, leading to overlap
- The PSI platform is English-only, making internal adoption more challenging
- No internal teams or roles are dedicated to PSI-related initiatives
- Limited sustainability awareness, knowledge and dedication among the employees
- Absence of regulation pressure
- Other (please specify)

(Sustainability Literacy Perception vs Significance)

Question 4: Perception of Sustainability Literacy across your organization

How well do you think the concept of SDGs is understood and embraced by staff across your organisation?

- 5 – Very well – Most staff actively understand and apply SDGs in their daily work.
- 4 – Fairly well – Many staff are aware and supportive, though engagement varies across teams.
- 3 – Somewhat – The concept is recognised, but practical understanding is limited.
- 2 – Not much – A few staff are aware, but it's not widely understood across the organisation.
- 1 – Not at all – Sustainability is rarely discussed or known internally.

Question 5: Perceived Significance of Sustainability Literacy across your organization

Do you believe that higher sustainability literacy among employees contributes to better adoption of PSI?

5 – Strongly Agree – I firmly believe that improving sustainability literacy among employees significantly enhances the adoption of PSI.

4 – Agree – In my view, greater sustainability awareness among staff generally supports better understanding and uptake of PSI, though other factors may also play a role.

3 – Neutral – I'm unsure whether higher sustainability literacy directly influences PSI adoption; it may depend on context or organizational priorities.

2 – Disagree – I don't think employee sustainability literacy has a strong impact on how PSI is adopted within the organization.

1 – Strongly Disagree – I believe there is little to no connection between sustainability literacy among employees and the adoption of PSI.

(Sustainability regulation)

Question 6. Are insurance companies in your country or region subject to regulations that require the incorporation of sustainability principles?

5 – Strongly agree: There are clear, enforceable regulatory mandates requiring sustainability integration in insurance operations.

4 – Agree: Regulations encourage or promote sustainability, although they may not be binding.

3 – Neutral: Regulatory provisions exist but are inconsistently applied.

2 – Disagree: Only minimal, non-binding sustainability guidance is available from regulators.

1 – Strongly disagree: There are no formal regulatory requirements linking sustainability to insurance industry practices.

Regulations may include:
- Insurance laws and supervisory rules
- Financial accounting and reporting standards
- Corporate governance codes
- Stewardship codes and other industry-specific guidelines

Question 7. In your view, if clear and enforceable regulations mandating sustainability integration were introduced in your country or region, how likely is it that insurance companies would adopt and implement the PSI principles?

5 – Very likely: Regulatory enforcement would strongly drive both PSI adoption and operational implementation across the sector.

4 – Likely: Most companies would adopt PSI and begin integrating its principles into business practices.

3 – Uncertain: Some companies might respond, but overall uptake and implementation would remain uneven.

2 – Unlikely: Regulatory mandates alone would not be sufficient to trigger meaningful PSI adoption or implementation.

1 – Very unlikely: Even with binding regulations, PSI uptake and implementation would face significant resistance.

(Corporate Culture 1-4)

1. Primary Focus

Question 8. A company should prioritise the interests of shareholders above all others.

- 5 – Strongly agree: "The company's responsibility lies chiefly with its shareholders as financial backers."
- 4 – Agree: "While other voices matter, shareholders should be the primary decision-makers."
- 3 – Neutral: "Companies should strike a balance between shareholder priorities and other stakeholder concerns."
- 2 – Disagree: "Shareholders are important, but their interests should not override those of communities or employees."
- 1 – Strongly disagree: "The interests of stakeholders such as employees, customers, and communities should take precedence over those of shareholders when making key decisions."

2. Time Horizon

Question 9. A company should focus on near-term business outcomes when formulating strategy.

- 5 – Strongly agree: "Short-term profitability and quarterly should be central to strategic decision-making."
- 4 – Agree: "Near-term goals are important and should be prioritised, though long-term considerations may complement them."
- 3 – Neutral: "A balanced approach is ideal—short-term results and long-term resilience should be weighed equally."
- 2 – Disagree: "While short-term performance matters, strategic focus should lean toward long-term positioning and sustainability."
- 1 – Strongly disagree: "Long-term resilience, stakeholder trust, and sustainable growth should take precedence over short-term gains."

3. Success Metric

Questions 10. Corporate success should be measured primarily by financial indicators (e.g., ROE).

- 5 – Strongly agree: "Financial ratios like ROE offer the clearest assessment of a company's performance."
- 4 – Agree: "Financial performance is key, although ESG should be considered as supplementary."
- 3 – Neutral: "Both financial and non-financial indicators have their place in measuring success."
- 2 – Disagree: "Success is more than financial metrics—ESG outcomes must be considered."
- 1 – Strongly disagree: "Corporate success should be measured primarily by non-financial indicators such as ESG."

4. Strategic Culture

Question 11. Our organisation's strategic culture is predominantly centrally managed.

- 5 – Strongly agree: "Strategic decisions are typically made by top management with little decentralised input."
- 4 – Agree: "Most decisions come from the centre, although some feedback is welcomed."
- 3 – Neutral: "We operate with a mix of central leadership and participatory engagement."
- 2 – Disagree: "While central leadership exists, strategy development involves diverse perspectives."
- 1 – Strongly disagree: "Our organisation encourages cross-level participation and decentralised input."

(General Questions)

Question 12. The PSI website offers a wide range of publications. Which segments of the insurance value chain would you like to see addressed in future PSI content?

- Company strategy
- Product and service development
- Sales and marketing
- Risk management and underwriting
- Claims management
- Investment management
- Clients and suppliers
- Government and regulatory bodies
- Accountability and reporting

(Multiple choices)

Question 13. Which segments of the SDGs would you like to see addressed in future PSI content?

(Please specify Goals from the illustration below) (Multiple choices)

Question 14. In your country or region's insurance sector, which interpretation of "sustainability" tends to be most emphasized or understood? Please select the one that best reflects the prevailing view

- 5 – As a comprehensive ESG framework: Sustainability is widely understood as the integration of environmental, social, and governance (ESG) factors into insurance strategy, operations, and stakeholder engagement.
- 4 – As long-term economic resilience: It is commonly associated with strengthening financial stability, climate risk mitigation, and intergenerational value creation.
- 3 – As business survival and continuity: The term is often interpreted as ensuring the company's survival amid external shocks such as pandemics, economic crises, or demographic shifts.
- 2 – As disaster preparedness and risk response: Sustainability is mainly linked to catastrophe risk management, underwriting for natural disasters, and emergency response planning.
- 1 – As regulatory compliance or branding: It is generally seen as a requirement for reporting or a tool for corporate image, with limited integration into core business practices.

If you'd like to elaborate on your response, please share your thoughts below:(Open-ended comment box)

Survey questions for institutions that are <u>PSI signatories or supporting institutions</u>

Question 15. How clearly is the PSI integrated or recognised within your organisation's strategy or operations?

- 5 – Fully embedded – PSI is reflected in our core strategy, policies, and activities
- 4 – Well integrated – PSI is acknowledged and incorporated into some key areas
- 3 – Partially recognised – PSI is known, but its application is still limited
- 2 – Minimally recognised – PSI is mentioned occasionally, with little implementation
- 1 – Not recognised – PSI is not currently referenced or discussed within the organisation

(Open-ended comment box)

Question 16. To what extent do you believe PSI offers tangible value to your organisation?

- 5 –Very high – PSI significantly contributes to our sustainability strategy and stakeholder engagement
- 4 –High – PSI offers clear guidance and reputational value
- 3 –Neutral – PSI provides general direction, but limited direct impact
- 2 –Low – PSI has minimal practical value for our current operations
- 1 –Very Low – We do not perceive any notable benefit from PSI at this time

(Open-ended comment box)