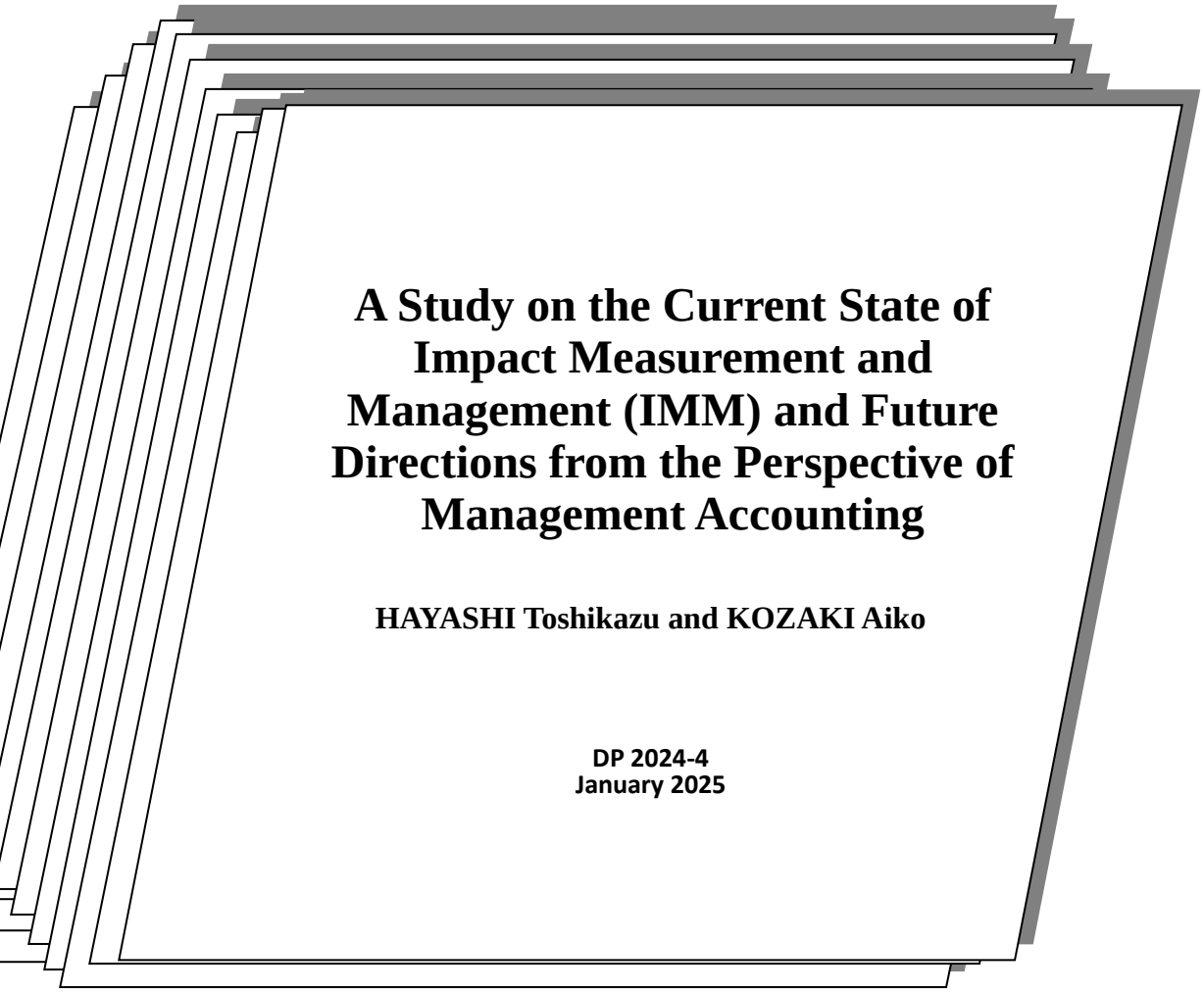

FSA Institute Discussion Paper Series

A Study on the Current State of Impact Measurement and Management (IMM) and Future Directions from the Perspective of Management Accounting

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DP 2024-4
January 2025

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A Study on the Current State of Impact Measurement and Management (IMM) and Future Directions from the Perspective of Management Accounting

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Abstract

This paper focuses on the increasingly prominent topic of Impact Measurement and Management (IMM), particularly on the setting and utilization of impact-related indicators. Based on interviews with practitioners in Japan and abroad, it describes the current state of IMM practices among companies and investors. The key findings are as follows. First, IMM consists of two distinct layers: "IMM at the firm level by individual companies" and "IMM at the portfolio level by investors." Second, the objectives and benefits of measuring impact-related indicators within companies fall into two broad categories: engagement and accountability to investors and other stakeholders (external reporting purposes); and business progress management, planning, and improvement (internal use purposes). Third, the indicators effective for external reporting to investors and other stakeholders do not always align with those useful for internal use. Fourth, there is some overlap between the indicators used for IMM and those used for Commercial Performance Measurement and Management (CPMM). And fifth, companies tend to prefer baseline comparisons—comparing outcomes against levels in the absence of intervention—over competitor benchmarks for impact-related indicators. Additionally, by drawing on insights from management accounting and management control research, this paper explores future directions for the practice and study of IMM at the firm level by individual companies. The discussions also highlight the potential for connecting IMM research with the fields of management accounting and management control.

Keywords: Impact Measurement and Management, IMM, Impact Investing, Management Accounting, Management Control

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We would like to express our sincere gratitude to Dr. Noriyuki Yanagawa, Director of the Financial Research Center (FSA Institute), Dr. Naoyuki Yoshino, Chief Advisor of the FSA Institute and many others of the Financial Services Agency (FSA) and the FSA Institute. All the contents expressed in this research are solely those of the authors and do not represent any views or opinions of any institutions. In particular, they are not an official view of the FSA or FSA Institute.

1. Introduction

In recent years, there has been growing interest in Impact Measurement and Management (IMM) among companies and investors aiming to generate positive social and environmental impact. The Financial Services Agency of Japan (FSA) also emphasizes the importance of IMM in the "Basic Guidelines for Impact Investment (Impact Finance)," published in March 2024. In these guidelines, the identification, measurement, and management of social and environmental impact are listed as essential elements of impact investment, underscoring the need for companies and investors to implement IMM in practice.

To the best of our knowledge, while the importance of IMM is widely recognized, there remains a lack of consensus on how to implement it effectively in practice. Accumulation of knowledge on what constitutes best practices for IMM implementation is not sufficient.

Against this background, this study clarifies the concept of IMM (Chapter 2) and explores the current state of IMM practices among companies and investors focused on impact creation. In particular, we conducted interviews with practitioners in Japan and abroad to investigate how companies and investors set and use impact-related indicators (Chapter 3).[1] Our findings reveal the following key points. First, IMM consists of two distinct layers: "IMM at the firm level by individual companies" and "IMM at the portfolio level by investors." Second, the objectives and benefits of measuring impact-related indicators within companies fall into two broad categories: engagement and accountability to investors and other stakeholders (external reporting purposes), and business progress management, planning, and improvement (internal use purposes). Third, Indicators useful for external reporting to investors and other stakeholders are not always identical to those effective for internal use. Fourth, there is some overlap between indicators used for IMM and those employed for Commercial Performance Measurement and Management (CPMM). And fifth, in practice, baseline comparisons—comparing outcomes against the levels in the absence of intervention—are preferred over competitor benchmarks for impact-related indicators within companies.

Furthermore, this study explores the future directions for the practice and research of IMM by referring to insights from management accounting and management control research (Chapter 4). Specifically, it examines the following six aspects: (1) the relationship between financial accounting, management accounting, and IMM; (2) the application of IMM in light of the expanding use of management accounting techniques in business management; (3) the possibility of complementing diagnostic IMM with interactive IMM; (4) positioning IMM as a technique in management accounting; (5) whether IMM and CPMM should be managed in an integrated manner; and (6) the potential for IMM in the context of expanding the concept of management control.

2. What is Impact Measurement and Management (IMM)?

This chapter defines Impact Measurement and Management (IMM), the central focus of this study. It aims to clarify the concept of IMM and provide an overview of related terminology.

First, in Section 2.1, the concept of "impact" will be reviewed, along with clarification of key terms used in this paper. Section 2.2 provides a definition of IMM, followed by Section 2.3, which introduces existing major guidelines and frameworks on IMM. Finally, Section 2.4 discusses international efforts toward the standardization of impact-related indicators.

2.1 The Concept of Impact and Terminology Used in This Study

The term "impact" does not have a universally agreed definition, and its meaning may vary depending on the user. Among investors engaged in impact investing, positive impact—often referred to as simply impact—is commonly understood as a desirable change aimed at addressing specific social or environmental challenges. However, the definition of what constitutes a social or environmental

[1] Imata (2022) points out that there is often confusion between two distinct concepts: impact evaluation, which originates from the public sector, international cooperation, development, and philanthropic foundations, and impact measurement, which has its roots in the private sector, including investors. However, this study focuses on the latter—namely, the practices of measurement among for-profit companies that pursue both impact creation and commercial performance, as well as investors who invest in such companies with the aim of generating impact while seeking financial returns.

challenge varies among companies and investors. In its broadest sense, positive impact can be defined as "an increase in the overall well-being of people, including changes resulting from shifts in the natural environment, as a consequence of organizational interventions" (Hayashi and Matsuyama, 2023b).

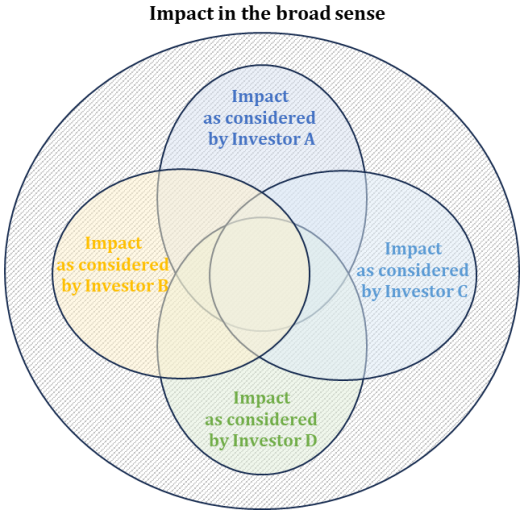

Figure 1: The Diverse Understandings of Impact

In this context, people's well-being is generally referred to as an outcome. Here, impact is defined as the change or increase in outcomes resulting from interventions by organizations (such as companies or investors), compared to the outcomes that would have occurred in the absence of such interventions (e.g., the supply of renewable energy or the provision of vaccines) (Hayashi and Matsuyama, 2023b). Here, an increase in outcomes due to interventions is defined as positive impact, while a decrease is defined as negative impact.

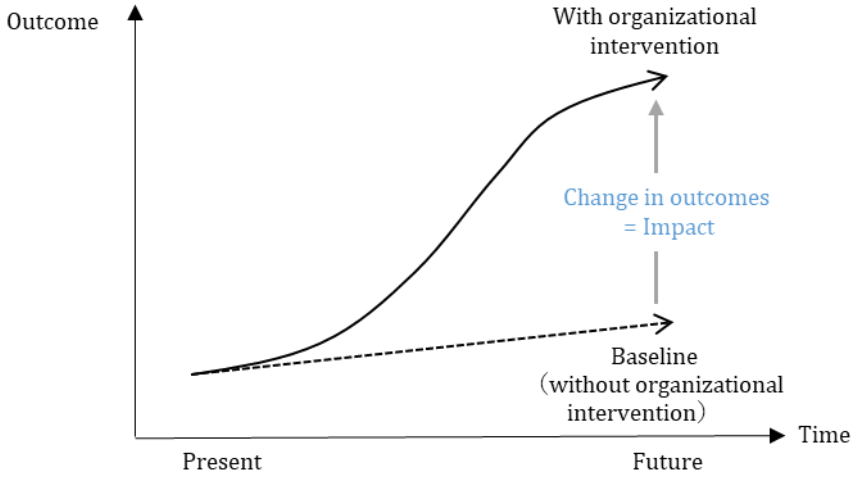

Figure 2: The Concept of Impact

This study focuses on the impact-related measurement and its utilization among companies and investors pursuing impact creation, including the generation of positive impact and the mitigation of negative impact. The key terms used in this paper are organized as follows.

First, the term "impact measurement" will be avoided unless necessary. This is because the meaning of "impact measurement" can be ambiguous—it could refer to the measurement of changes in outcomes (i.e., impact), or it could mean any type of measurement related to the pursuit of impact

by companies and investors aiming to create impact. To ensure clarity, this paper uses the term "impact-related measurement," which encompasses not only the measurement of outcome changes but also other forms of measurement relevant to the pursuit of impact.

Similarly, the term "impact indicators" will also be avoided unless necessary. Instead, the paper will use the term "impact-related indicators" to clarify that it includes not only indicators directly measuring changes in outcomes but also any indicators used for measurement practices related to the pursuit of impact.

2.2 Definition of IMM

IMM is an abbreviation for Impact Measurement and Management, and in Japanese literature, it is often translated into Japanese as "インパクト測定・管理 [*inpakuto sokutei/kanri*]" or "インパクト測定・マネジメント [*inpakuto sokutei/mane-jimento*]."

Among investors aiming to generate positive impact through their investment activities—commonly known as impact investors—the practice of IMM is generally regarded as an essential element. Notably, the Financial Services Agency of Japan (FSA), in its "Basic Guidelines for Impact Investment (Impact Finance)" published in March 2024, states "identifying, measuring, and managing impact" as one of the core components of impact investment.

It is unclear exactly when or by whom the term "IMM" (Impact Measurement and Management) was coined. However, based on our research, it is likely that the term was introduced around 2017 by someone involved with the Global Impact Investing Network (GIIN), the largest membership organization dedicated to impact investing. The earliest documented use of the term "Impact Measurement and Management" that we could identify appears in the "Annual Impact Investor Survey 2017: The Seventh Edition," published by GIIN in May 2017.

GIIN, which has been conducting regular surveys on the impact investing market since 2010 (O'donohoe *et al*., 2010), introduced the term "Impact Measurement and Management" in the 2017 survey report. However, the abbreviation "IMM" did not appear in this report. It first appeared seven months later in December 2017 when GIIN published "The State of Impact Measurement and Management Practice: First Edition," the first report focusing specifically on IMM.

Since then, GIIN has widely used the term IMM in its reports, and other organizations have subsequently adopted it in their publications.[2]

GIIN defines IMM as follows (see Table 1).

Table 1: Definition of IMM by GIIN

Impact Measurement and Management (IMM) is integral to making effective impact investments. It includes identifying and considering the positive and negative effects one's investment approaches have on people and the planet, and then figuring out ways to mitigate the negative and maximize the positive in alignment with one's goals. Impact measurement and management is iterative by nature.

(Source) Excerpt from GIIN (n.d.)

According to this definition, IMM refers to the iterative process of identifying both the positive and negative impacts on people and the planet and striving to improve and enhance these impacts in a more desirable direction. Using a term frequently applied in business settings, this process can be likened to continuously applying the PDCA (Plan-Do-Check-Act) cycle toward impact creation based on impact-related measurement, which is broadly consistent with the core concept of IMM.

Boiardi (2020), who reviewed existing guidelines related to IMM and proposed a classification method, breaks down IMM into two components: impact measurement and impact management. Here, the term "impact measurement" corresponds to what this paper refers to as "impact-related measurement." The essence of IMM lies not in "measurement" alone but in actively leveraging measurement results for management purposes. In this way, measurement is meaningful only when it is integrated with management practices, completing the cycle that defines IMM.

[2] An example of a report outside of GIIN that uses the term "IMM" is Boiardi (2020).

Table 2: Definitions of Impact Measurement and Impact Management by Boiardi (2020)

Impact measurement allows to set impact objectives, monitor impact performance and evaluate impact.
Impact management supports investors, enterprises and other stakeholders in including positive and negative impact considerations in investment and business decisions.

(Source) Excerpt from Boiardi (2020)

2.3 Existing Major Guidelines and Frameworks on IMM

There are numerous documents outlining guidelines and related frameworks for IMM practices. A pioneering example is "A Practical Guide to Measuring and Managing Impact," initially published by Impact Europe (formerly known as the European Venture Philanthropy Association, EVPA) in 2013, with partial revisions made in 2015. At that time, as mentioned earlier, the term IMM had not yet been coined, and the guide instead used the phrase "measuring and managing impact" in its title. The term IMM does not appear directly in this document.

Table 3 provides an overview of the major existing IMM guidelines and frameworks identified through literature searches. Although these guidelines and frameworks are all related to IMM, their intended users vary significantly. Broadly, they can be divided into two categories: investors and companies. However, even within these categories, the emphasis varies. For example, some guidelines and frameworks focus on organizations with a stronger non-profit orientation (such as "A Practical Guide to Measuring and Managing Impact"), while others prioritize venture companies (for instance, "Ventures at the Helm: How Ventures & Investors Navigate the Impact Measurement & Management (IMM) Journey, Together").

The content of these guidelines and frameworks also varies widely. Some provide general, high-level principles (such as the Operating Principles for Impact Management, OPIM), while others are more practical. Additionally, some focus on specific aspects of IMM, such as the Five Dimensions of Impact outlined by the Impact Management Project (IMP), which will be discussed later.

This study does not aim to provide an exhaustive review or comparative analysis of all existing IMM guidelines and frameworks. Instead, this section will provide a concise overview of three representative examples: OPIM, IMP's Five Dimensions of Impact, and the Playbook by ImpactVC. In the following chapters, the relevant guidelines and frameworks listed in Table 3 will be referenced as needed.

Table 3: Existing Major Guidelines and Frameworks Related to IMM

Main Developing Organization	Title	Intended Primary Users	
		Companies	Investors
Impact Europe (Former EVPA: European Venture Philanthropy Association)	A Practical Guide to Measuring and Managing Impact		✓
	Navigating Impact Measurement and Management: How to Integrate Impact throughout the Investment Journey		✓
	Navigating Impact Measurement and Management: A Mapping of IMM Initiatives		✓
European Commission	Proposed Approaches to Social Impact Measurement in European Commission legislation and in practice relating to: EuSEFs and the EaSI	✓	
IFC (International Finance Corporation)	Operating Principles for Impact Management		✓
UNDP (United Nations Development Programme)	SDG Impact Standards: Enterprises, Version 1.0	✓	
	SDG Impact Standards: Bond Issuers, Version 1.0	✓	
	SDG Impact Standards: Private Equity Fund, Version 1.0		✓
Impact Frontiers (Former IMP: Impact Management Project)	Five Dimensions of Impact	✓	✓
SVI (Social Value International)	The Principles of Social Value	✓	✓
	Maximise Your Impact: A Guide for Social Entrepreneurs	✓	
IMmPACT Project, UCL School of Management	Guidelines for Participatory Impact Measurement and Management, Version 2		✓
—	Ventures at the helm; How Ventures & Investors Navigate the Impact Measurement & Management (IMM) Journey, Together	✓	✓
ImpactVC	VC Impact Playbook		✓
	Founder Impact Playbook	✓	
GSG Impact JAPAN (Former GSG National Advisory Board Japan)	Guiding Principles for Impact Measurement and Management		✓
	Practical Guidebook for Impact Measurement and Management in Impact Investing		✓
	Guidance on Impact Finance in Debt and Impact Measurement & Management		✓
	Guidance for Information Disclosure and Dialogue in the Capital Markets for Impact Companies	✓	

(Note1) The “intended primary users” column is based on the authors’ analysis unless otherwise specified.

2.3.1 Operating Principles for Impact Management (OPIM)

The Operating Principles for Impact Management (OPIM), also referred to as the Impact Principles, were established in 2019 under the leadership of the International Finance Corporation (IFC). The framework outlines nine principles for investors to effectively engage in impact investing (see Figure 3). Initially, the IFC served the secretariat function of OPIM, but this responsibility was transferred to the Global Impact Investing Network (GIIN) in 2022 (OPIM, 2022).

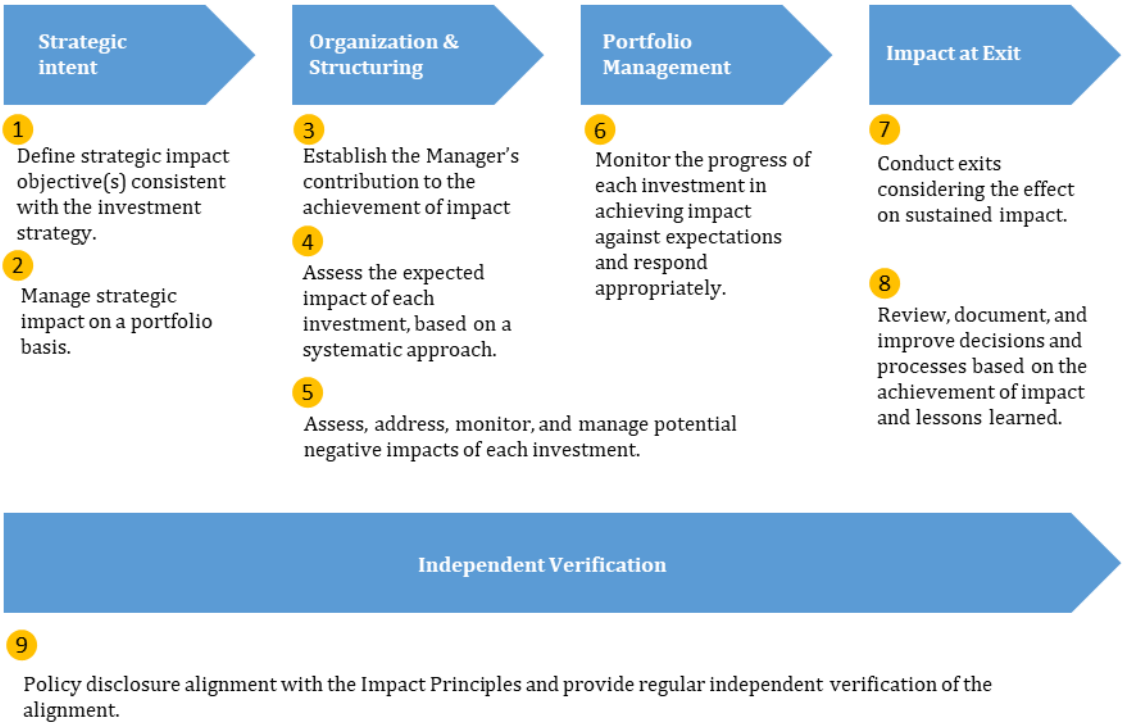

Figure 3: The 9 Principles of OPIM

(Source) Adapted from GIIN (2023)

OPIM has established a system for investors to become a Signatory by affirming adoption of the nine principles. Signatory process requires payment of an initial registration fee and annual membership fee, as well as the publication of annual reports, among other requirements. As of October 1, 2024, 184 institutions across 40 countries have signed the principles, representing USD 569.5 billion in assets under management (OPIM, n.d.).

In relation to the setting and utilization of impact-related indicators, OPIM references the Five Dimensions of Impact outlined by IMP in the commentary on Principle 4 (more details about IMP are given later). The guidance also states that "indicators shall, to the extent possible, be aligned with industry standards and follow best practice" and gives Impact Reporting and Investing Standards (IRIS) as one example of such industry standards (more details about the IRIS are given later). Additionally, it mentions that international best practice indicators include frameworks such as SMART (Specific, Measurable, Attainable, Relevant, and Timely) and SPICED (Subjective, Participatory, Interpreted & Communicable, Cross-checked, Empowering, and Diverse & Disaggregated).

In the commentary on Principle 6, OPIM specifies that "progress shall be monitored using a predefined processes for sharing performance data with investee."

While OPIM primarily presents high-level general principles applicable to investors across different scales and asset classes, it does not focus specifically on the setting and utilization of impact-related indicators—the primary focus of this study—and thus, beyond the contents mentioned above, it offers no further detailed or practical guidance on this topic.

2.3.2 The Five Dimensions of Impact by the Impact Management Project (IMP)

The Impact Management Project (IMP) was a time-limited project that operated from 2016 to 2021, aiming to build global consensus on the measurement, management, and reporting of impact. More than 3,000 companies and investors are reported to have been involved in the project. After concluding its activities in 2021, the results of IMP's work have been carried forward by Impact Frontiers (Impact Frontiers, n.d.-a).

One of IMP's most notable achievements is the framework known as the Five Dimensions of Impact, which provides an instruction for measuring impact. As the name suggests, the framework encourages companies and investors to understand impact through five dimensions: what, who, how much, contribution, and risk (see Table 4).

Table 4: Overview of the Five Dimensions of Impact by IMP

Dimension	Overview of Analysis
What	• What outcomes the company contributes to, whether they are positive or negative, and how important those outcomes are to stakeholders.
Who	• Which stakeholders experience the outcomes, and to what extent these stakeholders are disadvantaged or underserved.
How much	• How many stakeholders experience the outcomes, to what degree, and for how long.
Contribution	• Whether the efforts of the company or investor have resulted in better outcomes than would have occurred without their involvement.
Risk	• The likelihood that the impact will differ from what was expected.

(Source) Adapted from Impact Frontiers (n.d.-b)

If IMM is considered in terms of two aspects—measurement and management—the Five Dimensions of Impact primarily relate to measurement. However, not all five dimensions correspond to quantitative axes (like the X, Y, or Z axes) that lend themselves to numerical visualization. Regarding one of the key focuses of this study, the setting and measurement of impact-related indicators, the "how much" dimension has the closest relevance.

The IMP suggests that in order to properly understand the "how much" dimension, which is critical to evaluating the amount of impact, it is necessary to consider three elements: "scale," "depth," and "duration" (see Table 5). In other words, understanding impact involves not only how many people are reached or affected (scale), but also how significant the effect is for each individual (depth) and how long the effect lasts (duration). More accurately, as illustrated in Figure 2, impact is defined as the difference between outcomes with and without the intervention of companies or investors (i.e., the baseline value). In the Five Dimensions of Impact, the "contribution" dimension emphasizes the need to assess the depth of impact by distinguishing the effect of the intervention from what would have occurred without it.

Table 5: Measurement Methods and Examples for "How Much"

Indicator Category	Description	Example of Measurement
Scale	The number of individuals experiencing the outcome. When the planet is the stakeholder, this category is not relevant.	1,450 individuals
Depth	The degree of change experienced by the stakeholder. Depth is calculated by analyzing the change that has occurred between the "outcome level" and the "outcome level in the original state."	20% increase in outcome relative to the original state
Duration	The time period for which the stakeholder experiences the outcome.	24 months

(Source) Adapted from Impact Frontiers (n.d.-b)

The Five Dimensions of Impact outlined by IMP are referenced and cited not only in the previously mentioned OPIM but also in the "Playbook" by ImpactVC, which will be discussed later. Additionally, The Five Dimensions of Impact are cited in several documents listed in Table 3, such as "Navigating Impact Measurement and Management: How to Integrate Impact throughout the Investment Journey" and "Navigating Impact Measurement and Management: A Mapping of IMM Initiatives" by Impact Europe, "Ventures at the Helm: How Ventures & Investors Navigate the Impact Measurement & Management (IMM) Journey, Together," and the "Guidelines for Participatory Impact Measurement and Management."

2.3.3 "VC Impact Playbook" and "Founder Impact Playbook" by ImpactVC

The "VC Impact Playbook" and "Founder Impact Playbook" are guidelines tailored for startups and venture capital (VC) firms focused on impact creation. The term "playbook" originally comes from American football and other team sports, referring to a book or notebook containing descriptions and diagrams of strategies and formations that the team can use.[3]

These playbooks were developed by ImpactVC, a community within the VC industry. ImpactVC was established under the leadership of Better Society Capital (formerly Big Society Capital), a UK-based organization involved in funding VC and other funds focused on social impact creation.

Regarding the measurement and utilization of impact-related indicators, which is the focus of this study, the "Founder Impact Playbook" points out that impact measurement is increasingly becoming standard practice among startups. It also outlines the following five benefits of impact measurement:

Table 6: Examples of the Benefits of Impact Measurement from the "Founder Impact Playbook"

- Proving your impact
- Enabling you to better 'solve' for impact
- Enabling a more detailed understanding of the customers
- Generating insights to drive product development (and often faster product-market fit)
- Improving relationships with key stakeholders (employees, funders, and regulators)
- Reducing customer acquisition costs & decreasing conversion through more powerful messaging and increased trust

(Source) Adapted from ImpactVC (2024)

On the other hand, the "VC Impact Playbook" for investors emphasizes the importance of maintaining rigor in impact measurement, while stressing the need to balance it with the added value it offers. Regarding impact measurement for social aspects, the playbook points out that no established measurement framework currently exists. In contrast, it notes that standardization efforts are progressing for impact measurement for environmental aspects, much more advanced than social impact measurement. One example of such initiatives is led by Project FRAME, which we will discuss later.

2.4 Major Initiatives Aiming to Standardize Impact-Related Indicators

There are several efforts underway to standardize impact-related indicators, which is a key focus of this study. This section provides a brief overview of three representative initiatives.

2.4.1 IRIS Catalog of Metrics

Impact Reporting and Investing Standards (IRIS) is a project initiated by the Rockefeller Foundation, Acumen, and B Lab to establish standardized indicators and enhance communication about impact performance between companies and investors. IRIS has been managed, enhanced, and developed by the Global Impact Investing Network (GIIN) established in 2009 under the leadership of the Rockefeller Foundation. IRIS provides a standardized "Catalog of Metrics" that companies can use to

[3] The Oxford English Dictionary was referenced.

report their impact performance to investors.

In 2019, GIIN expanded IRIS from a simple catalog of metrics into a new system called IRIS+. IRIS+ includes several features that allow investors to explore recommended indicators (Core metrics set) based on the impact theme classifications provided by IRIS (see Table 7).

More recently, GIIN has focused on developing IRIS+ Impact Performance Benchmarks, analytic tools that allow investors to compare impact performance with peers, in areas such as financial inclusion, energy, and agriculture.

The foundation of IRIS+, including its tools and systems, is based on the original IRIS Catalog of Metrics, which has been continuously developed since 2008. The significance of this catalog is elaborated in a paper by Amit Bouri, CEO of GIIN, published in 2011 (Bouri, 2011). In the paper, Bouri discusses the goal of standardizing impact-related indicators to improve companies' ability to communicate their impact performance to investors. Bouri (2011) also notes that IRIS was inspired by international accounting standards, such as IFRS and US-GAAP. Although the IFRS Sustainability Disclosure Standards did not exist at the time Bouri published the paper, the intent was to develop impact reporting standards that could serve a similar function. According to Bouri (2011), standardizing indicators through IRIS would allow companies to more effectively communicate their impact performance to investors. Additionally, as more companies adopt standardized reporting practices, comparability between companies would improve, ultimately contributing to more efficient resource allocation through the impact investment market.

The IRIS Catalog of Metrics (Version 5.3 Released June 2022) contains 736 indicators.[4] These indicators are linked to one or more of GIIN's impact theme classifications (see Table 7). They include not only outcome indicators but also activity and output indicators. In addition, the catalog contains indicators related to both products and services as well as operational aspect. Additionally, traditional financial metrics, such as those found in balance sheets and income statements, are also included.

Table 7: Classification of IRIS Impact Categories and Number of Metrics Included

Impact Category	Impact Theme	Number of Metrics
Agriculture	Food security, Smallholder agriculture, Sustainable agriculture	37
Air	Clean air	0
Biodiversity & Ecosystems	Biodiversity and ecosystem conservation	11
Climate	Climate change mitigation, Climate resilience and adaptation	11
Diversity & Inclusion	Gender lens, Racial equity	24
Education	Access to quality education	45
Employment	Quality jobs	13
Energy	Clean energy, Energy access, Energy efficiency	27
Financial Services	Financial inclusion	68
Health	Access to quality healthcare, Nutrition	14
Infrastructure	Resilient infrastructure	20
Land	Natural resources conservation, Sustainable land management, Sustainable forestry	18
Oceans & Coastal Zones	Marine resources conservation and management	0
Pollution	Pollution prevention	1
Real Estate	Affordable quality housing, Green buildings	18

[4] Downloaded and obtained on July 24, 2024.

Waste	Waste management	18
Water	Water, sanitation and hygiene (WASH), Sustainable water management	44
Cross-Cutting	—	367
Total		**736**

(Note) In the IRIS Catalog of Metrics, many indicators are linked to multiple impact categories. However, the "number of metrics" column in the table reflects a count based on the "Primary Impact Category" designation. Additionally, the labels "Biodiversity" and "Biodiversity & Ecosystems" were considered as referring to the same impact categories and therefore combined.
(Source) Data from GIIN (2022)

2.4.2 Ocean Impact Navigator

1000 Ocean Startups is an initiative launched in 2021 by incubators, accelerators, and VCs with the goal of contributing to the achievement of SDG 14: "Life Below Water." As the name suggests, the initiative aims to nurture at least 1,000 innovative startups addressing ocean-related challenges by 2030. As of October 1, 2024, 48 organizations are participating, with USD 1.5 billion in assets under management and support provided to over 350 startups (1000 Ocean Startups, n.d.-a).

The Ocean Impact Navigator was developed by 1000 Ocean Startups and was introduced at the United Nations Ocean Conference in 2022. It identifies 30 priority indicators across six impact themes. Following a scientific review conducted in 2023, four indicators were added, bringing the total to 34 priority indicators. Technical explanations for each indicator are also provided.

Table 8: Six Impact Themes and 34 Priority Indicators of the Ocean Impact Navigator

Impact Theme	Priority Indicator
Sustainably managed ocean resources	Volume of animal biomass preserved or restored (tonnes)
	Volume of seafood waste reduced (tonnes)
	Welfare of marine life (qualitative reporting)
	Ocean-based seaweed and bivalves produced (tonnes)
A clean ocean	Volume of primary micro-plastics diverted and removed from nature or landfill (tonnes)
	Volume of macro-plastics diverted and removed from nature or landfill (tonnes)
	Nitrogen/phosphorous pollution mitigated (i.e., reduced, avoided or bioremediated) (tonnes of Nitrogen; tonnes of Phosphorous)
	Volume of contaminated wastewater diverted from waterways (litres)
	Invasive species reduced or avoided (qualitative reporting)
	Reduction in [other] pollution mitigation (e.g. heavy metals, chemicals sound etc.) (unit depending on the type of pollution)
	NOx emissions mitigated (tonnes)
	SOx emissions mitigated (tonnes)
	Particulate emissions mitigated (qualitative reporting)
Thriving and restored marine habitats	Area of coral reefs protected or restored (hectares)
	Area of mangroves protected or restored (hectares)
	Area of seagrasses protected or restored (hectares)
	Area of salt marshes protected or restored (hectares)
	Area of seaweed forests protected or restored (hectares)
	Area of [other habitat] protected or restored (hectares)
	GHG emissions reduced or avoided (tonnes of CO2e)

Towards a 1.5°C world	GHG emissions generated (tonnes of CO2e)
	Carbon sequestered (tonnes of CO2e)
Climate-resilient coastal communities	Length of coastline protected (kilometres)
	Use of ocean information products/services in decision-making to support climate adaptation and resilience (qualitative reporting)
	Number of people supported to adapt to climate change (#)
Positive socio-economic outcomes	Number of jobs created (#)
	People completing education/training programmes (#)
	Share of employees that are women (% of total employees)
	Share of employees in management positions that are women (% of total employees in management positions)
	Share of employees in management positions that are from underrepresented or marginalized groups (% of total employees in management positions)
	Ratios of average entry-level wage compared to local minimum wage at significant locations of operation (%)
	Enhanced food security (qualitative reporting)
	Number of local people in a coastal area (within 50km of the coast) with increased economic opportunities (either through new jobs or increased incomes) (#)
	[Other] positive socio-economic outcome

(Source) Adapted from 1000 Ocean Startups (n.d.-b)

According to 1000 Ocean Startups (2022), the Ocean Impact Navigator contributes in the following three ways.

The first contribution is by identifying priority areas for addressing ocean-related challenges. Ocean-related issues are diverse and interconnected, and by clarifying the areas that require priority attention, the Navigator provides valuable guidance for investors and companies.

The second contribution lies in standardizing and unifying indicators, which allows investors to aggregate measurements across multiple investee companies. This makes it possible for investors to monitor progress at the portfolio level and gain a comprehensive view of their overall impact.

The third contribution is that the standardization and unification of indicators also benefit companies, particularly startups, by simplifying and streamlining measurement practices. This reduces the burden associated with measurement activities, making the process more efficient and manageable for companies.

2.4.3 Project FRAME

Project FRAME was launched in 2021 as an initiative that aims to standardize methodologies for measuring the impact of technologies and services that contribute to future reductions in greenhouse gas (GHG) emissions. As of October 1, 2024, 345 institutional investors are members of the initiative, with USD 670.1 billion in assets under management across VC/PE investments (Project FRAME, n.d.).

Regarding its methodology, in April 2023, the initiative published "Pre-Investment Considerations: Diving Deeper into Assessing Future Greenhouse Gas Impact."[5]

The "future GHG impact" measured by this methodology refers not to the historical reduction in emissions achieved by comparing with a scenario where a technology or service did not exist, but rather to the projected future reduction. More specifically, the methodology proposes two key indicators: "Potential Impact," which uses a top-down estimation method, and "Planned Impact," which is based on a bottom-up estimation method.

[5] The Ministry of the Environment of Japan has referred to this and published the "Guide for Investors and Startups: Calculation and Evaluation of GHG Impact in Climate Tech" (available in Japanese only) in November 2024.

Figure 4: Potential Impact and Planned Impact

(Source) Adapted from Project FRAME (2023)

The issue driving the activities of Project FRAME is that, while an international standard known as the GHG Protocol exists for measuring historical GHG emissions, there is no standardized methodology for estimating future GHG emission reductions. Investors and companies may have incentives to make their projections of future GHG reductions as large as possible. Therefore, the standardization of methodologies is essential to ensure that objective estimates are made by both companies and investors.

Using a standardized methodology, climate tech startups can measure and report the future GHG reduction impact of their technologies and services to investors. These indicators can also be utilized by VC when evaluating and comparing potential investees. This approach is expected to strengthen the flow of investment toward startups with the greatest potential for significant impact creation.

3. The Current State of IMM: Insights from Interviews with Practitioners

This chapter describes the current practices of IMM among companies and investors in Japan and abroad who are focused on impact creation, with a particular focus on the setting and utilization of impact-related indicators. These findings are based on interviews conducted with them.

Section 3.1 provides an overview of the interview survey, and Section 3.2 presents key findings regarding the current state of IMM implementation.

3.1 Overview of the Interview Survey

3.1.1 Participants in the Interview Survey

The interview survey targeted investors engaged in impact investing, companies implementing IMM practices, and other practitioners involved in impact investing or IMM activities.

For Japanese participants, drawing on the authors' expertise, invitations were sent to eight VCs and other investors and four companies (a total of 12 organizations). As a result, 11 organizations (seven VCs and other investors and three companies) participated in the survey, with 14 individuals in total. The authors consider that, at the time of the interviews, the 11 organizations sufficiently represented the key investors and companies practicing impact investing and IMM in Japan, given the relatively limited presence of such actors compared to overseas.

For international participants, the study primarily used two sources: "VCs in the Nordics Focusing on Impact"[6] by the Norresken Foundation and "Global VC Funds Focusing on Impact Investing"[7] by Dealroom.co. The former lists 55 VCs and other investors from Sweden, Denmark, Norway, and Finland, while the latter contains 309 VCs and other investors worldwide.[8] The authors

[6] https://www.norrsken.org/nordicimpact (last accessed on November 10, 2023). However, as of the time of writing, the link is broken, and the page is no longer accessible.
[7] https://app.dealroom.co/lists/18389 (last accessed on February 2, 2024).
[8] The two lists (55 firms and 309 firms) contain some overlap.

reviewed the websites of relevant firms to select those publishing impact reports. For the Nordic countries, all 55 firms were reviewed. For the global VCs and other investors, 56 firms located in the UK, the Netherlands, Sweden, Denmark, Norway, and Finland were examined. Additional candidates were identified through various materials and expert recommendations. Ultimately, invitations to participate in the interview survey were sent to 18 organizations, and 12 organizations responded, with a total of 15 individuals participating. Additionally, two representatives from a UK asset owner investing in impact-focused VC funds, one representative from a UK company practicing IMM, and one representative from a UK consulting firm specializing in impact investing and IMM support also participated in the interviews.

As a result, 33 individuals from 26 organizations participated in the interviews for this study, both in and outside Japan.[9] Of the 26 participating organizations, 21 were investors (including two asset owners and 19 VCs and other investors). Among these investors, five were members of the Global Impact Investing Network (GIIN), five were signatories of the Operating Principles for Impact Management (OPIM), and seven were signatories of the Principles for Responsible Investment (PRI).[10]

3.1.2 Overview of the Interview Process

The interview survey was conducted through semi-structured interviews between January and June 2024. Participants were assured that, unless prior permission was obtained, their statements would be anonymized for research use. The interviews were conducted either online or in person.

3.2 Key Findings

This section presents the key findings from the interview survey. In addition to the information provided by the interview participants, this section also references impact reports and other publicly available information from the organizations to which the participants belong.

3.2.1 IMM at the Firm Level by Individual Companies and IMM at the Portfolio Level by Investors

The first key finding is that there are two distinct layers of IMM: IMM at the firm level by individual companies and IMM at the portfolio level by investors. These two layers represent different approaches based on who implements IMM.

As mentioned in Section 2.1, the definition of IMM provided by GIIN (see Table 1) describes IMM as “integral to making effective impact investments,” implying that investors are the primary implementers.

However, some existing guidelines and frameworks on IMM (listed in Table 3) distinguish between investors and companies as the respective implementers. Examples include ImpactVC’s “VC Impact Playbook” (for investors) and “Founder Impact Playbook” (for companies), as well as the UNDP’s “SDG Impact Standards: Private Equity Fund” (for investors) and “SDG Impact Standards: Enterprises” (for companies).

Moreover, Impact Europe’s “A Practical Guide to Measuring and Managing Impact,” though primarily designed for investors, emphasizes the importance of distinguishing between IMM at the firm level (at the level of investee companies) and IMM at the portfolio level (at the level of investors) when measuring impact-related indicators.

Figure 5 visualizes the distinction between IMM at the firm level and at the portfolio level. The following sections provide further explanations for each.

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[9] A list of individuals who consented to have their names published is included at the end of this paper. Additionally, we would like to express our sincere gratitude to the following individuals for their valuable insights on the current state of impact investing and IMM: Annebeth Roor (Rotterdam School of Management, Erasmus University), Maarten Holtslag (K+U Ventures), Uli Grabenwarter (European Investment Fund), Motoi Kawataba (innovate with), Suzuka Jomori (Macmillan Cancer Support), Fumi Sugeno (Japan Social Innovation and Investment Foundation), Nao Sudo (Impact Frontiers), Yoshitaka Tabuchi (Zebras and Company), Tamako Watanabe (The Japan Research Institute), (in no particular order).

[10] The membership and signatory status are as of June 2024.

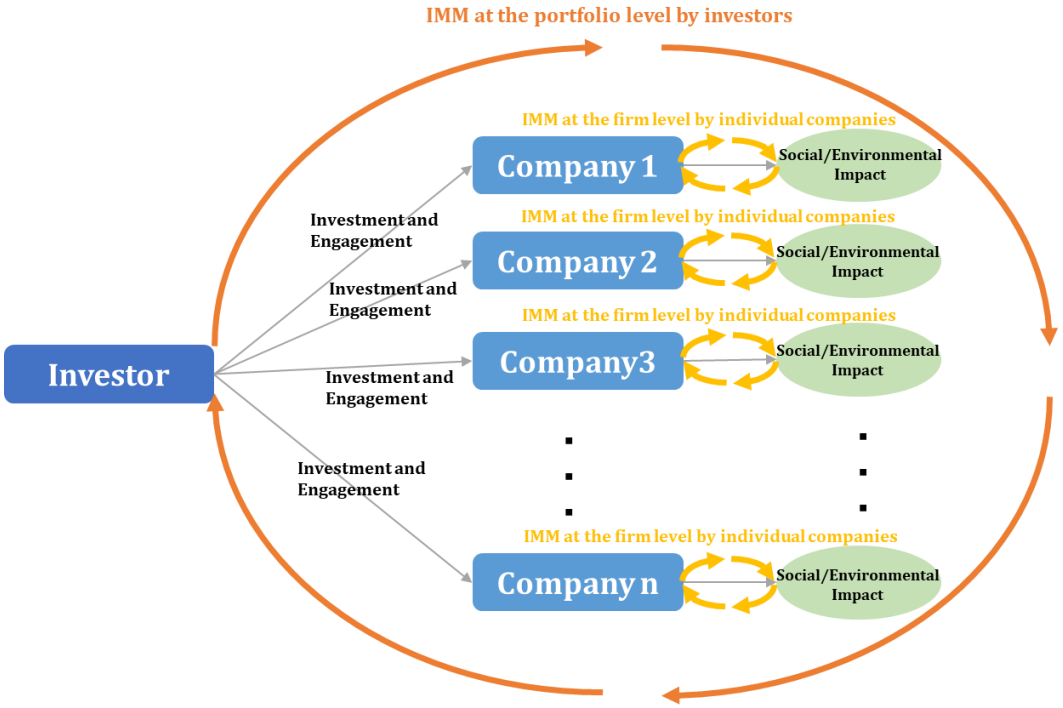

Figure 5: IMM at the Firm Level by Individual Companies and IMM at the Portfolio Level by Investors (Conceptual Diagram)

IMM at the Firm Level by Individual Companies

The entity primarily responsible for generating impact is companies. Without the presence of investee companies, investment actions by investors alone cannot generate impact. While impact can arise from various aspects of corporate activities (Hayashi and Matsuyama, 2023b), impact investors tend to focus specifically on the products and services of investee companies as key sources of impact.

IMM at the firm level by individual companies refers to a company-led initiative to measure—using relevant indicators—how much impact has been generated or could potentially be generated, and to leverage these measurement results at the individual company level. Although investors are often involved in these IMM efforts, the primary responsibility for implementation lies with companies. The role of investors is supportive and secondary in nature. Specifically, investors may offer advice on building IMM systems and frameworks, setting indicators, or providing feedback based on regular reports of measurement results to help improve performance as necessary.

For example, the Dutch VC firm Pymwymic sets specific indicators and target values for each investee company, requiring companies to report measurement results, which are disclosed in Pymwymic's impact reports. For instance, in August 2021, Pymwymic participated in a Series B funding round[11] for Biome Makers, a company that supports sustainable and cost-effective agriculture through soil analysis. Pymwymic monitors Biome Makers's progress toward achieving specific targets set through indicators listed in Table 9.

Table 9: Examples of Impact-Related Indicators Set for Each Investee Company

Impact Objective	Actual Impact Metrics Achieved	Target	% Achieved
A nature positive food production system	702,680 hectares implementing biological soil analysis	683,140	103%
	703 tons of agrochemical fertilizers avoided	683	103%
	211 tons of carbon sequestered through	205	105%

[11] Nix (2021)

	BeCrop recommendations		
Fair socio-economic conditions for farmers	21,500 farmers using BeCrop to become more regenerative	31,109	69%
	$14.5 million additional profits from utilising BeCrop results	14.1 million	103%
Empower the ecosystem	17 million of taxonomic references in the database	16 million	106%
	382 certified advisors on soil health & sustainability	500	76%

(Source) Adapted from Pymwymic (2024, p.31)

As an example within Japan, the KIBOW Social Investment Fund, established by the KIBOW Foundation, publishes impact-related measurement results for each investee company in its "Impact Report 2023." For instance, Kakemichi Project Co., Ltd., which provides home nursing services specializing in child mental health, uses the Global Assessment of Functioning (GAF) score—a scale for assessing social, occupational, and psychological functioning—as one of its indicators. Similarly, Rennovater Co., Ltd., which offers housing solutions for individuals facing housing insecurity by utilizing vacant homes, uses both quantitative and qualitative indicators. The quantitative indicators include the number of company-owned properties, the number of households residing in those properties, and the total number of households supported. In addition to these, qualitative indicators—such as housing satisfaction, life satisfaction, and health status—are also measured through resident surveys and utilized accordingly.

IMM at the Portfolio Level by Investors

There is an IMM approach that focuses on measuring the extent of the impact the portfolio is generating or is projected to generate in line with the fund's strategy and goals for impact creation.[12] The results from these measurements are used to strengthen and improve the portfolio.

A practical example of this is the Fair By Design Fund, managed by the UK-based VC firm Ascension Ventures. This impact VC invests in technology companies with the goal of eliminating the poverty premium in the UK by 2028. The poverty premium refers to the additional costs that low-income households incur when accessing essential goods and services simply because of their low-income status. A 2016 study by researchers from the University of Bristol reported that the average poverty premium in the UK amounted to £490 per year (Davies, Finney, and Hartfree, 2016). The Fair By Design Fund requires investee companies to regularly report estimates of their poverty premium reduction, and it aggregates these reports to assess the portfolio's overall progress toward the 2028 target. If necessary, the fund adjusts its strategies based on these reports (Andreou, 2020).

In Ascension Ventures' case, the ability to represent the fund's impact goal using a single indicator—poverty premium reduction—makes it relatively easier to implement IMM at the portfolio level.

However, not all funds are able to quantitatively express their overall impact goals using a single indicator. In many cases, impact goals cover broad areas or are qualitative in nature, making it difficult to express them using quantitative indicators. This could arise for several practical reasons. Restricting a fund's impact goal to a narrow focus may limit the pool of investee companies, making it more challenging to construct the portfolio or increasing financial risk. In addition, the uniqueness of each company's impact means that common indicators cannot always capture the full scope of impact within the overall portfolio.[13]

In situations where a single indicator cannot represent the fund's overall impact goal, there are attempts by some funds to convert the diverse impacts of individual companies in a portfolio into

[12] In existing guidelines on IMM, Impact Europe's "A Practical Guide to Measuring and Managing Impact" highlights the need not only to set indicators for each investee company but also, in some cases, to establish indicators at the portfolio level to measure the extent to which the investor has achieved its goals.

[13] Regarding the difficulty of measuring impact using common indicators due to the uniqueness of each company's impact, see also Hayashi and Matsuyama (2023b).

a single indicator represented by monetary value. This is because, by translating various types of impact into a monetary metric, it becomes possible to compare impacts across companies and to quantitatively express the aggregate impact at the portfolio level.

A specific example of such an attempt is Summa Equity, a Swedish investor which has adopted the Impact-Weighted Accounts method proposed by the Impact-Weighted Accounts Project at Harvard Business School (HBS). Summa Equity is also working with the International Foundation for Valuing Impacts (IFVI), a nonprofit organization spun off from the project, to develop accounting methods for converting various impacts into monetary value. These efforts are featured in Summa Equity's annual reports[14] (Summa Equity, 2024).

It should be noted that IMM at the firm level by individual companies and IMM at the portfolio level by investors are not mutually exclusive, meaning that neither is a substitute for the other. Instead, they are complementary and may each serve distinct roles.

Previous research has also highlighted the importance of IMM at the portfolio level by investors.

Specifically, Ebrahim and Rangan (2014) argue that impact creation is rarely achieved through the actions of a single company alone; instead, it typically results from the collaboration of multiple companies working toward common goals. Given this, they point out that investors, who are uniquely positioned to assess how these activities interact to create synergies across investee companies, can act more effectively at the portfolio level, making IMM at this level potentially more effective than having each investee company conduct IMM independently.

3.2.2 Companies' Objectives and Benefits of Measuring Impact-Related Indicators

The second key finding is that there are diverse perceptions among practitioners regarding the objectives and benefits of companies in measuring impact-related indicators. Figure 6 classifies the objectives and benefits of measuring these indicators based on the interview survey.[15] The results show that these objectives and benefits can be grouped into two broad categories: "engagement and accountability to investors and other stakeholders" (reporting purposes for investors and stakeholders) and "business progress management, planning, and improvement" (internal use purposes).

[14] For efforts to convert impact into monetary value, including Impact-Weighted Accounts, and the challenges involved, see also Hayashi and Matsuyama (2023a).

[15] Specifically, statements related to measurement in companies were extracted from the interview transcripts, and then grouped using the KJ method (Kawakita, 1967). We would like to express our gratitude to Takanori Matsui (Graduate School of Management, GLOBIS University/KIBOW Social Investment Fund) for his valuable insights on qualitative research methodologies.

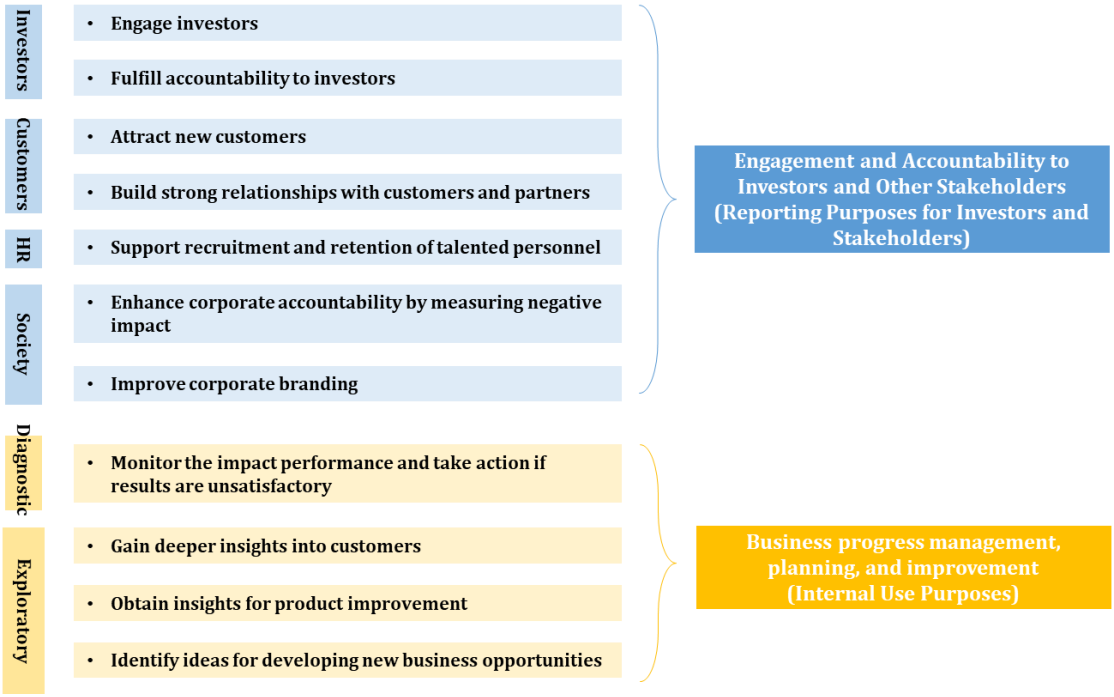

Figure 6: Companies' Objectives and Benefits of Measuring Impact-Related Indicators

Engagement and Accountability to Investors and Other Stakeholders (Reporting Purposes for Investors and Stakeholders)

Based on the interview survey analysis, measuring and communicating impact-related indicators at the firm level is recognized for its role in engaging various stakeholders and fulfilling accountability. These stakeholders include investors (such as impact investors), customers receiving impact-related products and services, employees, and business partners.

Business Progress Management, Planning, and Improvement (Internal Use Purposes)

At the same time, the analysis of the interview survey revealed that impact-related indicators are used with the aim of managing and improving business or are recognized as contributing to such outcomes.

Some interview participants acknowledged that the objectives and benefits of measuring impact-related indicators lie in confirming whether the intended impact is achieved through business activities and, if not, taking corrective actions. One participant likened this process to a "health check-up." In health check-ups, when the results are good (i.e., the individual is healthy), no action is typically taken based on the results. However, if the results are unsatisfactory or indicate potential problems, measures are considered and implemented to address them. The same principle applies to impact-related measurement.

In addition, participants pointed out that impact measurement deepens understanding of customers, provides insights into future product improvement, and offers ideas for new business development. These remarks go beyond the "progress management" function, as illustrated by the health check-up analogy, and emphasize the importance of "planning" and "improving" business operations. In other words, the focus of measurement shifts from "diagnosis" to "exploration" for planning and improving business.

An example of impact-related measurement that emphasizes "exploration" is the practice of Gojo & Company, Inc., which provides financial services, including microfinance, through its group companies in developing countries. In its "Impact Report July 2023," the company states: "Who are our clients?" This is the fundamental question at the heart of every impact measurement effort by a microfinance institution (Gojo & Company, Inc., 2023, p.22). To enhance customer understanding and inform service improvement and planning, Gojo & Company leverages various impact-related measurements, such as data from loan applications and transactions (full population survey), customer

satisfaction surveys (sample-based surveys), and financial diaries that track the daily income and expenses of low-income households (small sample surveys). These initiatives are considered to differ in nature from 'diagnostic' measurements, which aim to confirm whether the intended impact is actually manifesting and to take corrective actions if a gap is identified. An interviewee from the company described their measurement approach as being more aligned with 'research and development.'

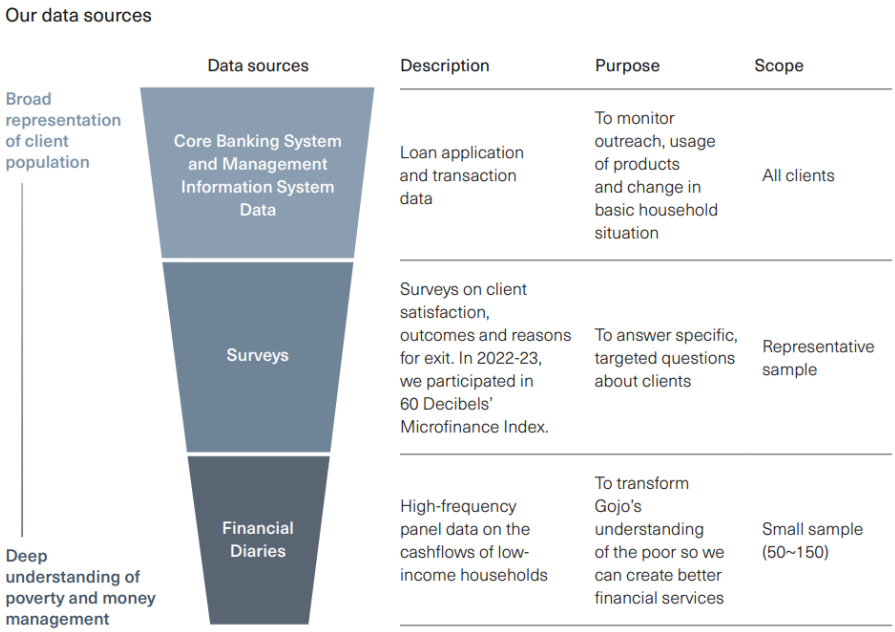

Figure 7: Overview of Measurement Practices at Gojo & Company, Inc.

(Source) Reproduced with permission from Gojo & Company, Inc. (2023, p.23)

The finding from the interview survey that the objectives and benefits of measuring impact-related indicators can be broadly divided into two categories—"engagement and accountability to investors and other stakeholders" (reporting purposes for investors and stakeholders) and "business progress management, planning, and improvement" (internal use purposes)—is consistent with prior research.

Specifically, Lall (2017) is, to the best of the authors' knowledge, one of the earliest academic works to clearly distinguish between these two categories and make them the central focus of its analysis. The study conducted empirical research to determine whether impact-related measurement in social enterprises is primarily used to "improve" or to "prove." The findings reported that, contrary to prior assumptions, there is a tendency to focus more on measurement for improvement. Additionally, Lall (2019), in his study on the interaction between funders and social enterprises, found that social enterprises initially use impact-related measurement to demonstrate legitimacy to funders but gradually transition to leveraging it as a tool for improvement.[16]

Furthermore, Roor and Maas (2023) conducted a comprehensive literature review on the objectives of impact measurement. Out of 141 papers reviewed, 87 mentioned the purpose of measurement, with 67 focusing on "prove" and 66 on "improve" (papers addressing both were counted in both categories). While the numbers are nearly balanced, Roor and Maas (2023) also reported that although many papers mention improvement, few offer concrete explanations on how improvement can be achieved.

Revisiting the definition of IMM discussed in Section 2.2, IMM is essentially "an iterative

[16] In addition, the importance of linking impact-related measurement to organizational learning and management has been discussed by Hehenberger and Buckland (2023) and others.

process to improve and enhance impact in a desirable direction through measurement," and this suggests that IMM is fundamentally aligned with the objectives of business progress management, planning, and improvement. While appealing to customers can promote the adoption of impact-related products and services, and attracting and retaining talented employees can contribute to expanding impact, these outcomes are secondary. They arise as indirect results of stakeholder engagement through impact measurement. Therefore, whether measurement conducted solely for stakeholder engagement should be regarded as part of IMM is a topic open for debate.

3.2.3 Indicators for Reporting to Investors and Other Stakeholders vs. Indicators for Internal Use

The third key finding is that, in IMM at the firm level by individual companies, indicators that are useful for reporting to investors and other stakeholders (reporting indicators) and those that are beneficial for internal use, such as performance management and decision-making within the company (internal-use indicators), may overlap but are not always the same.

For example, when companies communicate their impact achievements and future prospects to investors or other stakeholders, it can be effective to use outcome indicators, such as "saving X lives" or "reducing X tons of CO_2 emissions," that are easily understandable.

Similarly, for asset managers, when communicating the track record and future prospects of an impact fund to asset owners or other stakeholders, it can be more effective to present results at the fund level, encompassing the entire portfolio. For instance, using aggregate outcome indicators such as "saving X lives" or "reducing X tonnes of CO_2 emissions" is often more comprehensible and persuasive to third parties than presenting individual metrics for each portfolio company, such as "Company A achieved X, Company B achieved Y, Company C achieved Z," and so on.

For instance, SET Ventures, a VC firm based in the Netherlands, publishes impact reports (SET Ventures, 2024) that disclose the potential avoided GHG emissions across its portfolio companies. Specifically, SET Ventures reported that the actual avoided emissions of all companies in its portfolio in 2023 amounted to 3.3 $MtCO_2e$. The forecast for 2030 is 57.4 $MtCO_2e$, with a cumulative forecast of 173.4 $MtCO_2e$ from 2022 to 2030.

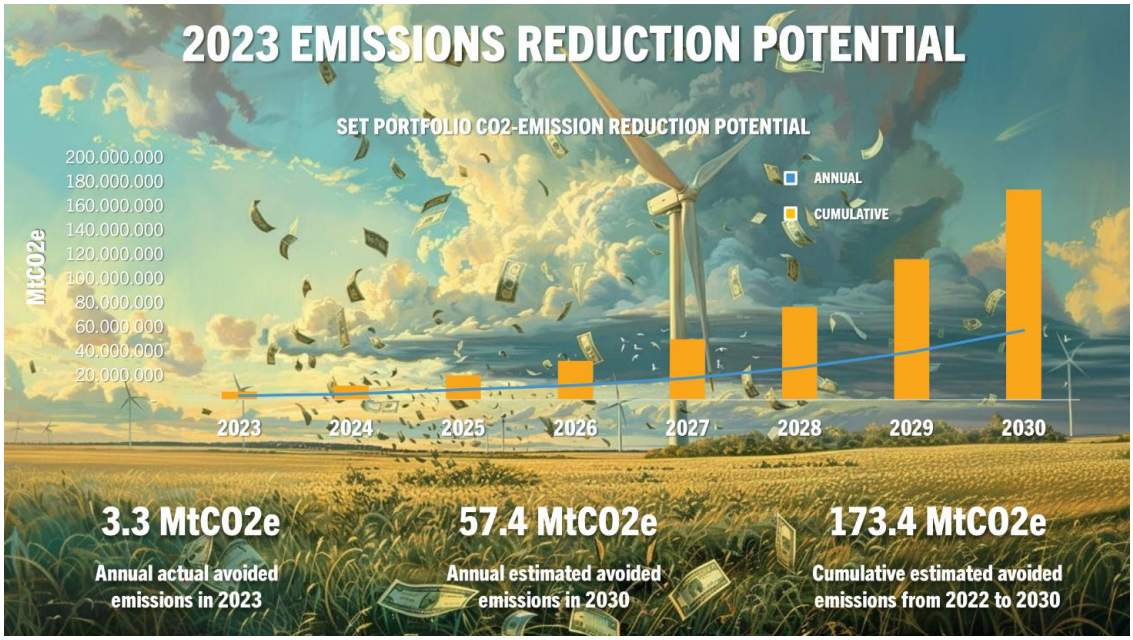

Figure 8: Example Calculation of Forecasted Avoided Greenhouse Gas Emissions Across Portfolio Companies

(Source) Reproduced with permission from SET Ventures (2024, p.18)

However, these indicators are not necessarily effective for internal use at the firm level.

For example, the avoided GHG emissions from a certain product is estimated by multiplying two factors: the product's performance, measured by how much emissions are avoided compared to existing products; and the number of units sold, which reflects how many existing products are replaced through sales.[17]

The first factor, performance, can be further disaggregated into more detailed elements according to the product's characteristics. Similarly, the second factor, sales volume, can also be disaggregated—for example, by customer segment or sales region. For companies aiming to enhance their avoided GHG emissions, it may be effective to break down the factors, identify particularly important elements, prioritize them, and focus on activities such as improving product performance or promoting sales. In other words, alongside high-level indicators like the total avoided GHG emissions, more specific, customized indicators tailored to the company's unique circumstances may be useful for internal use, particularly for performance management and decision-making.

As such, while there may be some overlap between indicators useful for reporting to investors and other stakeholders and those beneficial for internal use (e.g., decision-making and performance management within companies), they are not always identical. This relationship is illustrated in Figure 9.

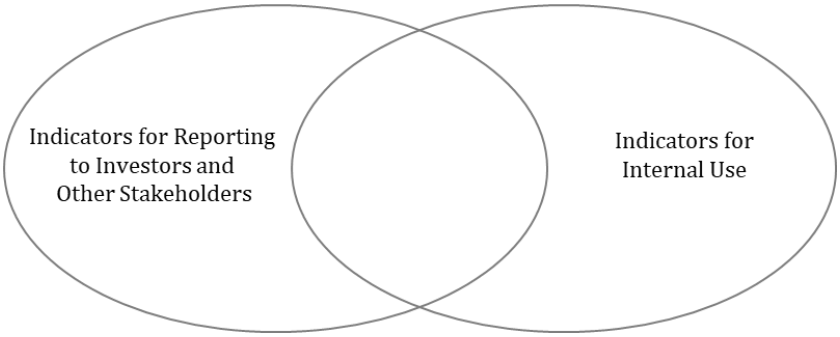

Figure 9: Conceptual Diagram of the Relationship Between Indicators for Reporting to Investors and Other Stakeholders and Those for Internal Use

Initiatives aimed at standardizing indicators discussed in Section 2.4, such as the IRIS Catalog of Metrics, the Ocean Impact Navigator's priority indicators, and Project FRAME's future GHG impact were developed with the primary motivation of improving communication between companies and investors. By standardizing indicators, investors can compare metrics across portfolio companies or aggregate the measurements of individual portfolio companies to present results at the portfolio level. For companies, standardized indicators help reduce the burden of measuring and reporting different metrics requested by various investors, thereby streamlining reporting practices.[18]

However, the main focus remains on improving communication between companies and investors. It is important to note that improving communication does not necessarily imply immediate improvements in how metrics are used internally within companies.[19]

3.2.4 IMM Indicators and Commercial Performance Measurement and Management (CPMM) Indicators

The fourth key finding is that some overlap exists between the indicators used at the firm level for

[17] In the case of flow-based estimation. See, for example, METI (2018) for further details.

[18] Among the existing guidelines related to IMM, "A Practical Guide to Measuring and Managing Impact" by Impact Europe highlights the inefficiency that arises when companies are required to measure and report different indicators for each investor. The guide emphasizes the effectiveness of standardizing indicators as a way to address this issue.

[19] This point has also been highlighted in existing guidelines related to IMM. For example, "A Practical Guide to Measuring and Managing Impact" by Impact Europe emphasizes that investors should request indicators aligned with the management objectives of the investee companies, rather than imposing excessive measurement burdens driven by investors' own convenience. Similarly, Castro and Ripley (2019) and "Ventures at the Helm: How Ventures & Investors Navigate the Impact Measurement & Management (IMM) Journey, Together" also make related observations.

IMM and those employed for measuring and managing the commercial performance of the company.

In business management, commercial performance measurement and management is typically conducted.[20] This practice is not limited to purely for-profit enterprises but is also essential for companies aiming to create impact through their business activities, including what are commonly referred to as social enterprises and social businesses.[21] In this paper, we refer to this practice as "Commercial Performance Measurement and Management" (CPMM), to contrast it with IMM.

What is the relationship between IMM and CPMM by companies that seek to generate impact through products and services as part of their business activities?[22]

In this context, it is common for indicators already used in CPMM to be utilized when establishing indicators for IMM. This is especially relevant for emerging companies, such as startups, that often have limited management resources to devote to IMM.[23] For startups with limited resources, leveraging indicators already measured and managed within CPMM for IMM can be seen as a practical and efficient approach.

For instance, indicators such as the number of people reached, user count, and sales volume are typically measured and managed within CPMM. When a product or service offers superior performance compared to existing products/services and is expected to generate impact, increasing the number of people reached, user count, or sales volume implies both higher revenues and expanded impact creation. Such indicators are often referred to as activity or output indicators, as distinct from outcome indicators (as previously discussed, impact is defined as a change in the level of outcomes).[24]

However, as described in Section 2.3, the Five Dimensions of Impact defined by IMP suggest that understanding the amount of impact, which is called "how much" dimension, requires consideration of three elements: "scale," "depth," and "duration." From this perspective, indicators like the number of people reached, user count, or sales volume correspond to scale, but measuring only scale does not fully capture the overall impact. Therefore, indicators representing depth and duration also need to be measured.[25] However, indicators corresponding to depth and duration are less likely to be employed within CPMM compared to those representing scale, and additional indicators might need to be established exclusively for IMM.[26]

Based on the above, the relationship between IMM and CPMM indicators is illustrated in Figure 10. Regarding activity indicators and output indicators, there is some overlap in indicators for

[20] Indicators used in commercial performance measurement are not necessarily limited to financial metrics such as sales revenue or operating profit. A variety of indicators that serve as leading indicators for sales revenue or operating profit are widely utilized. There is extensive literature by practitioners on the use of commercial performance measurement indicators, such as Umada (2021).

[21] When it comes to social enterprises or social businesses, their definitions and concepts vary, and there is no single, unified standard. Relevant discussions on this topic can be found in Yonezawa (2013) and Omuro (2018), among others.

[22] In existing guidelines and frameworks related to IMM, there are few specific references addressing the relationship between IMM and CPMM. However, some notable examples provide insight. For instance, the "SDG Impact Standard for Enterprises" emphasizes the need to integrate impact management into business operations. Impact Europe's "A Practical Guide to Measuring and Managing Impact" points out that impact measurement must be relevant to the organization conducting it, ensuring that measurement becomes part of the organization's management system and contributes to operational improvements for achieving greater impact. Additionally, "Ventures at the Helm: How Ventures & Investors Navigate the Impact Measurement & Management (IMM) Journey, Together" discusses the relationship between impact indicators and business metrics, relative to the growth stages of ventures.

[23] The point is also highlighted in ImpactVC's "VC Impact Playbook" and "Founder Impact Playbook."

[24] The idea of distinguishing the indicators used in IMM into input indicators, activity indicators, output indicators, and outcome indicators is mentioned in many existing guidelines and frameworks on IMM, albeit with slight variations in terminology and usage. Even one of the earliest guidelines listed in Table 3, Impact Europe's "A Practical Guide to Measuring and Managing Impact" refers to this categorization.

[25] In addition to indicators related to activities and outputs, the importance of measuring outcome indicators varies depending on the complexity and uncertainty of the relationship between outputs and outcomes in areas aiming to create impact (Ebrahim, 2019).

[26] In existing guidelines on IMM, Impact Europe's "A Practical Guide to Measuring and Managing Impact" notes that it is difficult to determine whether impact has truly been generated using only a single indicator, and therefore, it is advisable to use two or three indicators in combination. Furthermore, Impact Europe's "Navigating Impact Measurement and Management: How to Integrate Impact throughout the Investment Journey" points out that while some investors may be inclined to use numerous indicators, it is essential to identify the most relevant ones and prioritize their measurement from the perspective of usefulness for future decision-making.

IMM and those for CPMM. These indicators serve as leading indicators not only for outcomes but also for financial performance, allowing them to be effectively utilized in both IMM and CPMM.

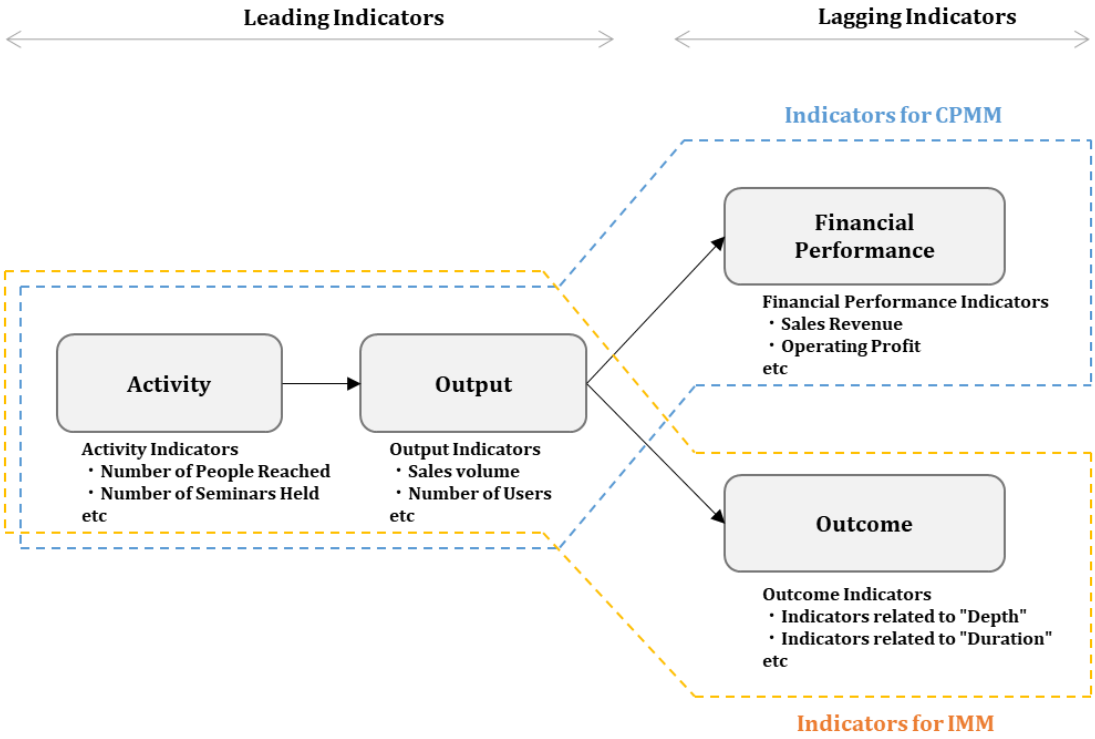

Figure 10: Relationship between Indicators for IMM and CPMM (Conceptual Diagram)[27]

This finding aligns with insights from prior research on actual impact measurement practices among companies and investors. Specifically, Molecke and Pinkse (2020) conducted qualitative research on measurement practices within companies, while Brown and Kaufmann (2022) examined those among investors. Although the focus of each study differs—companies and investors, respectively—both studies indicate that impact measurement does not directly quantify impact itself; rather, an initial qualitative judgment assesses whether a business is expected to generate impact, and if so, scale-related indicators for the business are subsequently used as proxies for impact measurement. These scale-related indicators refer to activity and output indicators, consistent with this study's findings.

3.2.5 Impact Indicators Are Oriented Toward Comparison with Baseline Values Rather Than Inter-Firm Comparisons

The fifth finding is that, in practice, impact-related indicators tend to focus more on comparison with baseline values rather than comparison with peer companies. This finding has implications for the way impact-related indicator standardization efforts are approached.

As previously mentioned, from the perspective of investors,[28] the primary motivation behind efforts to standardize impact-related indicators is to improve the comparability of indicators across companies. Indeed, during the due diligence phase before investing, investors may compare candidate companies with industry peers by using indicators as a basis for investment decisions. Furthermore,

[27] In creating Figure 10, we also referred to the diagram on the right from KIBOW Foundation (2024, p. 14), which presents the "Y-Model"—an investment criterion aimed at achieving both social transformation and financial returns by focusing on the scalability of the business and the capabilities of its management team to support it.
[28] For example, Bouri (2011). "A Practical Guide to Measuring and Managing Impact" by Impact Europe also mentions that ideally, indicators should enable benchmarking performance against external peers.

several existing IMM guidelines recommend using standardized indicators whenever possible.[29] However, in practice, the applicability of standardized indicators is often limited.[30]

The primary reason lies in the high degree of individuality in impact-related indicators for each company. Because of this individuality, it is often difficult to apply common indicators across multiple companies (Hayashi and Matsuyama, 2023b). For instance, during the due diligence process, investors may not always find peer companies that are directly comparable to the candidate company using the same indicators. This is especially the case for investors targeting companies with innovative and unique products or services that have no direct substitutes, where there may, literally in fact, be no comparable companies at all.

In firm-level IMM, comparisons can take various forms, including inter-firm comparisons, longitudinal comparisons, and comparisons with baseline values. Among these, comparisons with baseline values are particularly important, given their critical relevance to the definition of impact (see Section 2.1). However, due to the highly specific nature of impact-related indicators for each company, suitable baseline values cannot always be expected to be readily available from existing public statistics. Some companies aiming for impact creation undertake their own research and efforts to calculate baseline values when such data cannot be obtained from public sources.

While clarifying intervention effects by comparing outcome levels with baseline values is undoubtedly important, given that the definition of impact is the difference in outcome levels, obtaining such baseline values is not always straightforward. In practice, this raises a separate issue: to what extent rigor should be pursued when baseline values are difficult to obtain. Some existing IMM guidelines recommend conducting such assessments within the scope of what is practically feasible.[31] In reality, companies need to consider the resources they can allocate to measurement, as well as the speed required to carry out assessments.

4. Future Directions for IMM from the Perspective of Management Accounting[32]

Chapter 3 provided an overview of the current practices in IMM, focusing especially on the setting and utilization of impact-related indicators, based on interviews. In this chapter, drawing on the current state of IMM practices, we explore future directions for both the implementation and study of IMM by referencing insights from the fields of management accounting (also referred to as managerial accounting) and management control. To the best of the authors' knowledge, few prior studies have explored the future direction of IMM from the perspectives of management accounting or management control.

4.1 Financial Accounting and Management Accounting in Relation to IMM

The definition of "management accounting" varies across literature. Sakurai (2019, p.5) defines management accounting as "accounting that supports the management by formulating strategies and aiding managerial decision-making, management control, and operational control at the front lines." Similarly, Itami and Aoki (2016, p.27) define management accounting systems as "a system that

[29] For example, OPIM and "A Practical Guide to Measuring and Managing Impact" by Impact Europe. "The SDG Impact Standard for Enterprises" states that while standardized indicators should be used whenever possible, management accounting or internal indicators may also be necessary.

[30] Taticchi and Andreoli (2022) point out that, in actual conduct of impact-related measurement, standardization may not always be optimal given that multiple factors need to be considered. They argue that fully standardized indicators cannot capture the full scope of impact specific to each company. In practice, there is always a trade-off between standardization and customization.

[31] Impact Europe's "A Practical Guide to Measuring and Managing Impact" emphasizes that rigorously measuring the extent to which observed changes are attributable to organizational intervention, or accounting for changes that would have occurred in the absence of such intervention, is often impractical due to the required costs and expertise. The guide highlights the importance of recognizing these challenges and measuring outcomes if measuring impact is impractical. It further stresses that it is essential not to become overly fixated on calculating precise impact figures.

[32] In writing this chapter, we received valuable insights on IMM from the perspective of management accounting research from Takeyoshi Senoo (Chuo University). We would like to take this opportunity to express our deepest gratitude to him.

organizes and refines accounting data gathered from across the company to make it beneficial for internal management and business operation."

Management accounting, often called internal reporting accounting (Sakurai, 2019), is distinguished from financial accounting, which is geared toward external reporting for investors and other stakeholders.

The key differences between financial accounting and management accounting are summarized in the following table.

Table 10: Key Differences between Financial Accounting and Management Accounting

	Financial Accounting (External Reporting)	Management Accounting (Internal Reporting)
Users of Information	Investors, creditors, and other external stakeholders	Internal users such as managers
Existence of Rules	International Financial Reporting Standards (IFRS), Japanese GAAP, US GAAP, IFRS Sustainability Disclosure Standards, etc.	No specific rules
Reporting Unit	Consolidated, individual, or segment-based	Entire company, departments, teams, projects, products/services, etc.
Characteristics of Information	Objectivity, reliability	Relevance, usefulness, timeliness
Time Orientation	Focus on past performance	Focus on both past performance and future projections

(Source) Created based on Sakurai (2019) and Aoki (2024)

In recent years, it has become well-known that financial accounting is increasingly incorporating non-financial information, such as sustainability-related data, beyond traditional monetary metrics like revenues, profits, and costs. A representative example of this trend is the IFRS Sustainability Disclosure Standards, developed by the International Sustainability Standards Board (ISSB) under the IFRS Foundation, and officially released in June 2023. While financial accounting has traditionally focused on monetary figures, management accounting has long handled both monetary and non-monetary quantitative information, such as material consumption, labor hours, and the number of defective products.

The relationship between financial accounting, management accounting, and IMM, including the two distinct layers identified in Chapter 3—IMM at the firm level by individual companies and IMM at the portfolio level by investors (see 3.2.1)—can be organized as shown in the following table.

Table 11: The Relationship Between Financial Accounting, Management Accounting, and IMM

	Financial Accounting (External Reporting Accounting)	Management Accounting (Internal Reporting Accounting)
Relationship with IMM	Strongly related to IMM at the portfolio level by investors	Strongly related to IMM at the firm level by individual companies
Presence of Rules	At the time of this study, no legally binding rules exist, but frameworks such as the IRIS Catalog of Metrics and Impact Frontiers' "Impact Performance Reporting Norms" are available.	No specific rules

As discussed in section 2.4.1, the development of the IRIS Catalog of Metrics was initially influenced by frameworks such as International Financial Reporting Standards (IFRS) and U.S. GAAP, as suggested by Bouri (2011). This indicates that the creation of rules for indicators used in external

reporting by companies to investors was one of its objectives. More recently, Impact Frontiers' "Impact Performance Reporting Norms," published in April 2024, also focuses on establishing rules for reporting from companies to investors. Such rule-setting efforts for external reporting are expected to contribute to the efficient and effective implementation of IMM at the portfolio level by investors.

On the other hand, IMM at the firm level by individual companies closely aligns with management accounting, or internal reporting. Rather than external reporting based on established rules, firm-level IMM focuses on internal use for the purpose of impact creation. This involves utilizing appropriate indicators to conduct PDCA cycles aimed at improving impact, specifically for activities such as performance management and decision-making—a process that can be firmly categorized within the domain of management accounting.

These points are also consistent with the findings from the interview study discussed in Chapter 3, particularly the distinction between indicators used for reporting purposes to investors and other stakeholders and those used for internal purposes (see section 3.2.3).

4.2 The Potential Expansion of IMM Use Cases from the Historical Development of Management Accounting

By referring to textbooks and other literature on management accounting, we notice that management accounting has been applied in various facets of business management. Sakurai (2019), who provides a comprehensive and systematic description of management accounting over more than 900 pages, structures his book as outlined in the table below, providing detailed explanations of specific techniques within each section. Regarding the order of topics presented in the book, Sakurai (2019) notes that it follows the historical evolution of management accounting practices.

Table 12: Management Accounting Utilized in Various Aspects of Business Management

Management Accounting for Business Planning and Control	Part 2: Management Accounting for Profit Management
	Part 3: Management Accounting for Cost Management
Part 4: Management Accounting for Managerial Decision-Making	
Part 5: Management Accounting for Strategic Planning	

(Source) Created based on Sakurai (2019)

The application of management accounting to business management is indeed diverse, with a wide variety of metrics and measurement scopes being utilized.

For instance, in managerial decision-making for investment projects related to new product development or new business development, it is common to compare forecasted future cash flows as a key metric against the investment amount. Such forecasted cash flows are forward-looking indicators that focus on future outcomes, rather than backward-looking ones.[33]

Additionally, the scope of these measurements is generally confined to specific investment projects, rather than encompassing the entire company or a business division.

Conversely, firm-level IMM does not yet appear to have as broad an application scope as management accounting. As described in Chapter 3, while some companies use impact-related measurements for business progress management, planning, and improvement (see 3.2.2), much of the IMM observed through our interviews tended to focus on "diagnostic" measurement. Furthermore, the indicators used primarily reflect past performance, making them backward-looking.

However, given the broad range of business management areas where management accounting is applied, it is reasonable to consider that IMM could similarly be adopted across various facets of business management. For instance, in making investment decisions for new product or business development projects, companies might not only rely on forecasted future cash flows but also utilize forward-looking indicators, such as projected future impact creation, as part of their decision-

[33] See also Itami and Aoki (2016).

making processes.[34]

4.3 Beyond Diagnostic IMM: The Potential of Interactive IMM

Research on development of management accounting highlights, as Ito (2019) points out, the growing expectations placed on management control. Traditionally, strategies and goals were considered as given, and the objective of management control centered on efficiently executing predetermined strategies and preventing deviations from set goals—what Simons (1995) calls "diagnostic control."

However, in today's rapidly changing business environment, while the importance of executing predetermined strategies and achieving set goals remains unchanged, it has become equally essential to update strategies and goals dynamically. Furthermore, businesses are now expected to improve operations through trial and error, pursue innovations by launching new initiatives, and engage in creative problem-solving. This shift emphasizes the need for exploratory activities alongside execution, which elevates the importance of what Simons (1995) calls "interactive control."

In light of these changes, Ito (2019) provides detailed discussions on "management control for strategic emergence," "management control for operational routine improvement," and "management control for innovation" in his book.

Distinguishing between "diagnostic control" and "interactive control" may provide valuable insights for the future of firm-level IMM.

In companies pursuing impact creation, strategies for impact creation—generally referred to as an impact thesis or a theory of change—and goals related to impact creation are treated as given. Alongside this, it is essential to implement strategies precisely and achieve these goals reliably through diagnostic IMM. At the same time, from the perspective of impact creation, it is also important for these companies to update their strategies and goals dynamically, improve business operations through trial and error and creative efforts, and foster innovation by launching new initiatives. Therefore, what could be called "interactive IMM" may also play a significant role moving forward.

4.4 The Historical Development of "Techniques" in Management Accounting: Can IMM Become a "Technique"?

The term "accounting" in management accounting often evokes a strong association with financial metrics, such as revenue, profit, and expenses. However, management accounting has historically expanded to incorporate non-financial indicators alongside financial ones.

In the U.S., throughout the 1980s, as the financial performance of U.S. companies rapidly deteriorated, skepticism and criticism grew regarding management practices overly focused on financial metrics. At the same time, there was a growing movement to study and incorporate Japanese business management techniques, which emphasized non-financial indicators such as quality and had demonstrated strong international competitiveness. This trend expanded into the early 1990s (Yoshiki, 2013; Yasukata, Otomasa and Fukuda, 2008). According to Yoshiki (2013), the incorporation of non-financial indicators in U.S. management practices culminated in the introduction of the Balanced Scorecard[35] by Kaplan and Norton in 1992. The Balanced Scorecard (BSC) integrates financial indicators with non-financial ones across categories such as "Customer," "Internal Processes," and "Learning and Growth." Examples of these non-financial indicators include customer satisfaction and employee retention rates. The Balanced Scorecard remains one of the most influential techniques in management accounting today, widely adopted by companies and extensively researched worldwide.[36]

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[34] The two indicators proposed by Project FRAME, Potential Impact and Planned Impact, discussed in Section 2.4, can both be regarded as forward-looking indicators. Among existing IMM guidelines, "Proposed approaches to social impact measurement in European Commission legislation and in practice relating to EuSEFs and the EaSI" mentions the distinction between predictive (forward-looking) indicators and retrospective (backward-looking) indicators as one of the perspectives for classifying indicators.

[35] The Balanced Scorecard has been widely discussed in Japanese literature as well. For example, Sakurai (2008) and Shimizu (2004) provide comprehensive overviews.

[36] Some studies have explored the application of the Balanced Scorecard to the management of social enterprises (Somers, 2005; Bull, 2007). However, based on our research, there is no evidence to suggest that these ideas have been widely adopted in the actual management practices of social enterprises. The Balanced Scorecard incorporates the

Throughout the history of management accounting, the development of new techniques has reflected the evolving goals and challenges of business management, adapting to changes in the external environment. Sakurai (2019) summarizes the historical progression of these techniques, as shown in the table below.

Table 13: Change in Features and Typical Management Accounting Techniques from Post-War to Present

Period	Post-war – 1960	1960 – 1973	1973 – 1990	1991 – 2000	2001 and Beyond
Features	Efficiency Improvement	Quantitative Expansion	Operational Efficiency	Shareholder and Efficiency-Oriented	Strategic Management + Efficiency and Customer Focus
Typical Techniques	Standard Costing, Budgetary Control	Direct Costing, Capital Investment Planning	Target Costing, JIT, TQC, VE	PBR, ABC, EVA, Mini Profit Centers	Balanced Scorecard, Amoeba Management, Revenue Management

(Source) Adapted from Sakurai (2019, p.48)

The Balanced Scorecard mentioned earlier is positioned as one of such techniques.

Among the techniques listed in the table, some originated in Japan. One such technique is "Amoeba Management" developed at Kyocera, founded by Kazuo Inamori (Inamori, 2010). Amoeba Management is a management approach that divides a company into small units called amoebas, each with an independent accounting system to instill a sense of management ownership. Each amoeba uses "profit per hour" (value added per hour) as its performance indicator, and by independently engaging in creativity and innovation to enhance this measure, it aims to improve the efficiency and performance of the entire company (Itami and Aoki, 2016).

There is no direct relationship between the techniques listed in Table 13 and IMM since these techniques were not designed specifically for impact creation. However, the reason for mentioning these techniques in this research is that they provide important perspectives for considering the future of firm-level IMM. This means that it prompts us to consider whether firm-level IMM can be elevated to the level of "management accounting techniques," as indicated in Table 13.

Various management accounting techniques have been devised in line with changes in business management goals and challenges, and the relationship between management goals or challenges and impact is gradually increasing.[37] For instance, in Japan, the Impact Startup Association was established in 2022, and its membership has been expanding. Additionally, the Japan Business Federation (Keidanren) published a policy report in June 2022 titled "Using Impact Metrics to Promote Dialogue with Purpose as Starting Point: Action for Sustainable Capitalism by Companies and Investors." Furthermore, in April 2023, the Japan Association of Corporate Executives (Keizai Doyukai) released a policy proposal titled "Collaborative Capitalism: Awakening 'Animal Spirits' Based on 'Corporate Purpose' and 'Empathy'" (available in Japanese only). These developments reflect the growing interest within the business community in management practices aimed at generating impact, indicating a clear increase in companies striving to create such impact. Furthermore,

concept of a "Strategy Maps," which links a company's strategic objectives across four perspectives: Financial, Customer, Internal Business Process, and Learning and Growth. This map is designed to visualize the causal chains leading to the achievement of overall corporate goals. Additionally, some prior studies have noted similarities between these Strategy Maps and the "logic models" commonly used by impact-driven companies and investors, which depict hypothetical causal chains involving inputs, activities, outputs, outcomes, and impact (So and Staskevicius, 2015; Onishi and Hioki, 2016).

[37] Hayashi (2024)

the scale of impact investing, which seeks to create impact, is also on the rise.[38] As of August 31, 2024, 314 companies, including businesses and financial institutions, were members of the Japan's Impact Consortium established in November 2023. The growing impact orientation among investors is expected to influence companies' impact orientation both directly and indirectly. In this context, it is evident that for some companies, impact creation is already a management goal or challenge, suggesting that the groundwork for firm-level IMM to evolve into "management accounting techniques" is gradually being laid.

Regarding the current state of firm-level IMM, as described in Chapter 3, it appears that, compared to methodologies like the Balanced Scorecard and Amoeba Management, no distinctive approaches have yet been established for setting and utilizing impact-related indicators that could be described as a "technique." At least as of the time of this study, IMM seems to remain at the conceptual level of appropriately setting and utilizing indicators to continuously implement the PDCA cycle aimed at impact creation.

Of course, this could reflect that we are currently in a transitional phase, and whether firm-level IMM will evolve to the point where it can be described as a "technique" will be an important area to watch as practices are continued in the future.

4.5 Should IMM and CPMM (Commercial Performance Measurement and Management) Be Managed in an Integrated Manner?

In recent years, an increasing number of for-profit companies have focused on addressing various sustainability challenges (hereafter referred to as "sustainability issues"). The objectives and approaches of these efforts vary. For example, some companies establish "sustainability strategies"[39] and "sustainability goals," along with internal structures such as appointing a "Chief Sustainability Officer,"[40] forming a "Sustainability Committee,"[41] or setting up a "Sustainability Promotion Department." These companies actively implement various initiatives to address sustainability issues. It can be assumed that these companies have some form of management control system for sustainability (hereafter referred to as "sustainability-related MCS").

Additionally, many of these companies already have, or previously had, traditional management control systems (MCS) in place to meet conventional business management needs before they have started working on sustainability issues.

Research on the relationship between traditional MCS and sustainability-related MCS began with the seminal work of Gond *et al*. (2012), and research has gradually accumulated (e.g., Maas, Schaltegger, and Crutzen, 2016; Beusch, 2020a; 2020b). According to the theoretical insights of Gond *et al*. (2012), integrating traditional MCS with sustainability-related MCS enhances the performance of sustainability initiatives. Conversely, if the two systems remain unintegrated and are managed separately, traditional MCS tends to take precedence, leading to the risk that sustainability efforts may be deprioritized or marginalized (Beusch, 2020b).

If firm-level IMM is considered the core of MCS for impact creation, these insights may also apply to the relationship between MCS for impact creation and traditional MCS—including CPMM (Commercial Performance Measurement and Management)—may also be relevant.

The optimal relationship between IMM and CPMM may vary depending on the sources of funding[42] for a company's impact creation activities.

For instance, one of the existing IMM guidelines, SVI (2017), features a fictional social enterprise that supports youth employment. The enterprise is depicted as having its main sources of income from grants provided by charitable foundations and contract revenue from local governments. In such an enterprise, IMM efforts related to activities funded by grants and contracts already secured

[38] GSG Impact JAPAN National Partner (2024b)
[39] Rafi, T. (2022)
[40] Miller and Serafeim (2014)
[41] Burke, Hoitash and Hoitash (2019)
[42] One approach to distinguishing between so-called social enterprises and conventional for-profit companies focuses on the differences in sources of funding (Yonezawa, 2013).

for achieving youth employment, and fundraising[43] activities aimed at acquiring new grants and contracts, are likely to be conducted separately.

In contrast, companies that create impact through products and services—and whose revenues from these offerings also serve as funding for impact activities—are in a different situation. In these cases, the pursuit of commercial performance and the generation of funding for impact creation (i.e., revenue from sales of products and services, which can broadly be regarded as a form of fundraising) are inherently inseparable. Therefore, the integration of IMM and CPMM may be necessary in such contexts.

The table below summarizes hypotheses on how differences in funding sources may influence the relationship between IMM and CPMM. Further research and empirical validation are needed in this area.

Table 14: Hypothesis on the Relationship Between IMM and CPMM Based on the Differences in Funding Sources

Primary Funding Sources	Mainly Donations and Grants	Mainly Business Revenue
Relationship Between IMM and CPMM	Fundraising activities and IMM are carried out independently	CPMM and IMM are inherently inseparable

4.6 The Expansion of Management Control Concepts and Implications for IMM

Many studies have pointed out that the concept of management control has expanded significantly over the course of management accounting research. Ito (2019) organizes the expansion of the concept of management control as shown in the table below.

Such expansions provide important perspectives for considering the future of firm-level IMM.

Table 15: Expansion of Management Control Concepts

Features of Anthony (1965)	Subsequent Developments
Emphasis on motivation (execution-focused)	Advanced motivation (execution + exploration)
Formal system orientation	Focus on control through organizational culture
Fixed role distribution	Optimization in motion (review and mutual integration)
Accounting-centric approach	Control package

(Note1) Anthony (1965) is considered a seminal work that had a significant impact on management accounting and management control studies.
(Source) Adapted from Ito (2019, p.41).

In light of the increasing importance of management control systems that not only focus on executing predetermined strategies and achieving predefined goals through "diagnostic control," but also support the agile updating of strategies and goals, the improvement and refinement of business processes through trial and error and creative ingenuity, and fostering innovation through the launch of new initiatives via "interactive control," it is worth noting that the role of IMM could similarly evolve. As previously discussed, IMM may also need to adapt to encompass these exploratory elements.

At the same time, there is growing recognition of the importance of considering control mechanisms that extend beyond formal measurement systems. This includes other means of control, such as management philosophy, organizational culture, governance, and human resources, which should be examined as part of an integrated framework. The concept of a control package highlights the need to acknowledge these diverse control tools and explore their use as a cohesive system. Such

[43] According to the Japan Fundraising Association (n.d.), fundraising "narrowly refers to activities solely focused on soliciting donations. However, it is generally understood to also include the collection of 'supportive funds,' such as membership fees, grants, and subsidies. In a broader sense, the term is used as a comprehensive descriptor for revenue generation by private non-profit organizations, encompassing business income, loans, and social investments."

an approach may also be applicable to IMM.

Thus, it is essential not only to focus on measuring impact quantitatively and determining how to leverage these measurements to achieve impact, but also to approach impact creation through a control package that includes organizational philosophy, culture, governance, and human resources. This integrated perspective can facilitate organizational management, motivate members, and encourage behaviors that support impact creation. Such an expanded framework could offer valuable insights for the future development of firm-level IMM.

5. Conclusion

In this study, we explored the current practices of IMM, with a particular focus on the setting and utilization of impact-related indicators, based on interviews with practitioners from both in and outside Japan (Chapter 3). We also examined the future directions of firm-level IMM in practice and research from the perspectives of management accounting and management control (Chapter 4).

With the recent surge in interest in impact investing, IMM has drawn increasing attention. We hope that the findings of this study will help deepen understanding of the current state of IMM practices.

At the same time, it is the authors' personal view that the term "IMM" carries a message that distinguishes it from mere "Impact Measurement" (IM). In other words, it involves leveraging "measurement" as a means to maximize the probability of success in the extremely challenging endeavor of creating impact—while achieving commercial performance for companies and delivering investment returns for investors—and to achieve the best possible outcomes.

The more we focus on this aspect, the clearer the connections between firm-level IMM and the fields of management accounting and management control become. These fields have accumulated extensive knowledge on indicator setting and utilization—far beyond what this paper could fully cover. We sincerely hope that this study encourages interdisciplinary research bridging these areas and ultimately contributes to the further development of IMM. Such progress would be a deeply gratifying outcome for the authors.

Acknowledgment of Interview Participants

Below is a list of individuals who participated in the interviews conducted for this study and granted permission for their names to be included. We extend our sincere appreciation for their valuable time and insights. Their contributions were essential to the completion of this paper, and we are deeply grateful for their willingness to share their expertise.

International Practitioners

Emma Steele (Ascension VC)
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Yumi Tsoy (Bethnal Green Ventures)
Philipp Essl (Better Society Capital)
Sasha Afanasieva (Big Issue Invest)
Yasmin Venema (4Impact)
Lena Horvath McAtee (Gullspång Re:food)
Ingrid Maurstad (Katapult Ocean)
Gurmeet Kaur (New Philanthropy Capital)
Simon Glenister (Noise Solution)
Maria de Perlinghi (Norselab)
Marleen Blanson Henkemans (Pymwymic)
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Emelie Norling (Summa Equity)
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Takeshi Igarashi (KIBOW Social Investment Fund)
Masato Nakamura (GLIN Impact Capital)
Masahiro Hata (GLIN Impact Capital)
Sadaharu Saiki (GLIN Impact Capital)
Yuriko Gibo (Keio Innovation Initiative)
Reiri Miura (SIIF Impact Capital)
Masato Noike (PLUS SOCIAL Investment)
Taizo Otsuka (Ame Kaze Taiyo)
Yuji Hisano (CureApp)
Haruna Tanaka (Gojo & Company)

（Note: In no particular order)

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