

# Conceptualisation and Application of Strategic Performance Measurement and Management in the “New Public Management” Context: Systematic review

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*This was the first paper of a three-article dissertation on the conceptualisation and application of strategic performance measurement and management in the public sector. The research was conducted for the Doctorate of Business Administration degree with Paris School of Business, Paris, France. The paper was presented at the 3rd International Conference on Economics and Development (ICED 2019) in Bangkok, Thailand from 13-14 June 2019 and the doctoral thesis was successfully defended on March 26, 2020.*

## Abstract

**Purpose:** There is literature galore on strategic performance measurement and management (SPMM) particularly since the 1990s. This paper explores the four dimensions of SPMM commencing with the genesis and trajectory of SPMM, followed by an investigation on the derivation, application, and utilisation of public sector performance measures, an examination of the distinctive characteristics of the public sector and implications on public sector SPMM and concludes with approaches to successful translation of private sector SPMM practices to the public sector. **Design/Methodology/Approach:** The study adopted a systematic literature review protocol as the primary research method to undertake a theoretical synthesis and thematic analysis of 266 papers on the conceptualisation and application of SPMM in the private, public and third sectors. The papers were subjected to a thorough, precise, and balanced double phase, single review process aimed at reducing bias which enhanced the rigour and overall research quality. **Findings:** The systematic review revealed that SPMM evolved in phases across the three sectors, first in the private sector (220AD), then the public sector (1900), and finally the third sector (1960s). By the 1990s, convergence of contemporary multi-dimensional SPMM systems emerged as they were adopted and adapted to various sectoral, organisational, and environmental trends. The review of public sector SPMM models employed by the West over 30 years highlighted the critical role of performance measures in the successful execution of public sector SPMM systems. The study validated their increasing centrality to public sector performance and accountability and enhanced sophistication of new ICT-driven SPMM systems. The study thoroughly examined public-private sector differences, revealing critical insights for applying private sector SPMM practices in the public domain. It highlighted the implications of the differences on public sector performance measures. The study further revealed that benchmarking, initially from the private sector, is now crucial for inter-organisational and global comparisons in the public sector. These findings are essential for practitioners and academics in exploring and addressing the unique challenges of implementing SPMM in the public sector's complex environment. **Research Limitations:** The research was wide-ranging, bulky, and time-consuming under severe time constraints and had to be severely abbreviated which could result in bias and impact replicability. **Practical Implications:** This paper attempts to bridge the gap between theory and practice in the highly practitioner reliant SPMM field. It proposed a comprehensive public sector SPMM descriptive model complemented by a ten point framework based on literature recommendations which is expected to facilitate future public sector KPI implementations. This is important for public managers employ SPMM systems and must address the daily practical realities of the unique and complex public sector environment. The paper tackles the linkages between various SPMM dimensions pertaining to the public sector and concludes that there is a performance dividend that accrues when these linkages are systematically explored. **Originality/value:** The paper thoroughly provides a cumulative assessment of four separate yet complimentary dimensions on the conceptualisation and application of SPMM in the public, private and third sectors covering centuries. The proposed enhancement to the original systematic literature review protocol can enrich future studies. The proposed public sector SPMM models and recommendations ventured beyond the superficial debate on applicability of private sector approaches to the public sector and addressed the critical practical aspects that are visibly missing from most public sector SPMM literature. The study makes a rare contribution to the theory and practice of SPMM in the turbulent digital era.

**Keywords:** Strategic, performance management, performance measurement, key performance measures, key performance indicators, New Public Management, performance measures, systems, fragile, periphery country

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## 1. Introduction

Strategic performance measurement and management (SPMM) has existed for centuries albeit as a distinct field of research, it has only come under increased research radar over the last four decades (Carneiro-da-Cunha, Hourneaux & Corrêa, 2016; Johnson & Kaplan, 1987; Franco-Santos & Bourne, 2005; Franco-Santos, Lucianetti, & Bourne, 2012). The imperative for strategic performance measurement and management (SPMM) is unanimously unequivocal in literature and there are hardly any dissensions about its business case in any organisation permeating the public, private and third sectors. Indeed, the literature confirm that most organisations employ an SPMM system in the implementation and monitoring of organisational strategy (Simons, 2000; Kaplan & Norton 2001a, Kaplan & Norton 2001b), aligning organisational units and employees' goals to the organisation's (De Waal, 2002; De Waal, 2003; Dresner, 2010; Kaplan & Norton, 2006), and linking strategies with management of operations (Chenhall, Kallunki & Silvola, 2011; Kaplan & Norton, 2008). Despite the proliferation of studies on public sector SPMM (e.g. Mimba, Van Helden, & Sandra, 2007; Mackie, 2008; Pazvakambwa & Steyn, 2014; Ross, 2011; Ross, 2012; Thomas, 2006; Tudor & Mike, 2013), there is still over-reference to the private sector as the core source of theory and empirical research on SPMM subject which can be conceptually constraining (Rashman, Withers, & Hartley, 2009) on understanding public sector SPMM. Rashman et al. (2009) further concluded that organisations' sectoral differences and similarities demand "conceptualisation and research" that is sensitive to the contextual nuances such as "sector-specific aims, values and structures" (p.463).

There have been impressive contributions to the evolution and understanding of SPPM but "some contradictions" are still to be dispensed with such as that academic theory development has trailed the demands of practice (Waweru, 2010). This perception ignores that the subject has attracted an unusually high level of attention from practitioners globally which explains crucial importance of continued engagement between leading practitioners and academia (Bourne 2015). Thus, it diminishes the evident longstanding symbiotic relationship between SPMM theory development and practice making it a rather simplistic interpretation.

Theoretical developments in the SPMM field have occurred through empirical implementation or organisational practice of various concepts, models and theories in all sectors, albeit often with time lag between practice innovation and adoption in case of the public sectors (Waweru, 2010; Muravu, 2011) and continued evolution of SPMM and resultant changes in organisational contexts and operational settings, and this necessitates continuous development of a new theoretical base for the emerging practices to maintain the relevance of academic contribution to the upcoming field (Bititci, Carrie, & McDevitt, 1997; Greatbanks & Tapp 2007; IOJPM, 2016; Moxham & Boaden, 2007; Neely, Gregory, & Platts, 1995, 2005).

The systematic review established a deliberate convergence of efforts by practitioners and academia, over the last couple of decades, aimed at providing platforms for moving theory forward which has been a glaring lacuna in SPMM research but concurrently providing opportunities for the promotion of practice. As we shall see, over the last couple of decades SPMM has attracted an unusually high level of global attention from practitioners which resulted in the deliberate convergence of efforts by both practitioners and academia. This is aimed at providing platforms for moving theory forward which has been a glaring lacuna in SPMM research but concurrently providing opportunities for promotion of practice.

SPMM efforts are meant to enhance the capability of the organisation which should ultimately lead to improvement in organisational performance (Bititci, Carrie & McDevitt, 1997; Dresner, 2017; Mendez, 2016; Pasch, 2012) in the form of improved efficiency and increase in shareholder value (Dresner, 2017). In the public sector, some literature traces early forms of performance measurement and management to some forerunner Results Based Management (RBM) methodologies that were associated with Management by Objectives (MBO) and Program Performance Budgeting systems (PPBS) of the 1960s (Thomas, 2006). These systems focused on results and achievement of objectives but fell short on detailed implementation.

In what became known as the 'New Public Management' (NPM), the 'New Public Sector' (NPS) or simply 'new model of public governance' of the 1980s and 1990s, Anglo-Saxon countries came under pressure to become more "efficient and effective" so as to reduce taxpayer dollar burden by "doing more with less" (Lindquist, 2022; Lapuente & Van de Walle, 2020; Binnendijk, 2000; Brignall & Modell, 2000; Hailey & Sorgenfrei, 2004; Marr & Creelman, 2011; Sanderson, 2001). The literature reveals that, like in the private sector, SPMM is prevalent in the public sector (Lindquist, 2022; Hailey & Sorgenfrei, 2004; Mackie, 2008; Marr & Creelman, 2011; Mimba, Van Helden, & Sandra, 2007; Ross, 2011; 2012). It has been a key aspect of NPM

modern reforms implemented in the last four decades to resolve mounting government fiscal challenges and resultant socio-economic problems (Lindquist, 2022; Brignall & Modell, 2000; Sanderson, 2001).

This paper synthesises the conceptualisation and application of strategic measurement of performance in the public sector through a comprehensive systematic literature review. The main aim is to explore existing theory to provide greater insights and extract specific lessons from and understanding of public sector SPMM from the literature. The paper contributes to the quintessential and concerted efforts to continually renew the theoretical base, given the fast-evolving nature of SPMM coupled with constantly emerging practices in a perpetually dynamic and disruptive operational environment to ensure continued academic relevance and contribution to public sector SPMM theory development to this highly practice-dependent field (Bourne, 2015). In addition, it will lay the overall context and perspective that will form the theoretical basis of two subsequent empirical papers. The rest of this paper is structured as follows:

- Section 2 provides a brief theoretical review of SPMM and outlines the shift from traditional to systematic reviews in the SPMM field.
- Section 3 outlines the systematic literature review method employed in this study.
- Section 4 presents and discusses the research findings.
- Section 5 articulates the conceptual/theoretical, practical operational and managerial implications; and
- Section 6 rounds up the study with research limitations, future research, and conclusion.
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## 2. *State of the Science*

For about decades, public sector management has principally been about performance management than in any other era in history as most countries started translating management concepts, previously associated with the private sector into public sector administration (Lindquist, 2022; Lapuente & Van de Walle, 2020; Helmuth, 2011; Aucoin, 1990; Behn, 1995). This section briefly traces the status of the body of knowledge on key concepts of the research namely, the definition of SPMM, theoretical/conceptual considerations and the New Public Management (NPM).

### 2.1 *Nomenclature and meaning of strategic performance measurement and management*

The term “performance management” is borrowed from management literature and emerged in the late 1970s (Armstrong & Baron, 1998; Matinez, 2001) and was adopted in several disciplines in the late 1980s after which its meaning has continued to evolve contextually (Muravu, 2020). The systematic review of 266 documents encountered about 26 terms or permutations of the term “strategic performance measurement and management” with at least 79 attendant definitions. Muravu (2020; 2020a) revealed “terminological diversity”, that is, there is a proliferation of fragmented terms and nomenclature in the SPMM field which were adopted by diverse authors in different contexts or used interchangeably. The author also confirmed that there is no universally agreed definition of SPMM, some authors don’t define the term at all and where defined it was inconsistently or contextually defined.

Many justifications have been provided in literature for lack of nomenclatural and definitional convergence in SPMM (e.g., Goshu & Kitaw, 2016; Franco-Santos et al., 2007; Matinez, 2001). According to Tangen (2003) “... performance measurement is a subject that is often discussed but rarely defined, it may be helpful to first clarify the term.” (p.348). Ratnayake (2009) endorsed, “definitions are important because in the field of PM, language used is confused” (p.158). Matinez (2001) concurs that this proliferation of terminology and definitions of SPMM shows both a lack of common understanding of the subject, its scale and scope, by academics and practitioners alike but may also reveal how the subject has evolved as a concept over time.

Furthermore, the lack of convergence on what to call and how to describe SPMM and the resultant confusion about what it is – and is not - in today’s management lexicon has been identified as hindering the development of the field into a distinct research field (Franco-Santos et al., 2007; Ratnayake, 2009; Tangen, 2003; Muravu, 2020) as we shall see later. Consequently, this paper adopts “strategic performance measurement and management” as a generic term in lieu of the many variants used in the SPMM field covering the main aspects involved in the process in which organisations align their performance to their strategy through measuring and reporting their progress and using the information to make effective decisions and take necessary actions to achieve planned outcomes (Ross, 2011; Muravu, 2020). The term is also preferred because it is sector-neutral since it is equally applicable to the private, public and third sectors and explicitly highlights the inherent integration between organisational performance measurement and management with organisational strategy. Given lack of a universal definition, we do not attempt to provide a specific definition of SPMM as we believe

that the issue of terminological and definitional diversity in the field warrants a separate study and is therefore not within the purview of this study.

## 2.2 Theoretical and conceptual underpinnings

The systematic review revealed that several early SPMM theories and concepts were unsurprisingly rooted in management accounting literature given its influential role in historical finance based SPMM systems and practices (Chenhall & Lang-Smith, 2007; Henri 2004; Johnson & Kaplan, 1987; Kaplan, 1984; Metawie, 2005; Waweru, 2010; Wanderley & Cullen, 2013; Henri, 2004; Kaplan & Norton, 1992; Metawie, 2005; Neely, Gregory & Platts, 1995; Otle, 1999) which evolved over time into multi-dimensional SPMM frameworks employed under modern public sector reforms such as NPM which itself was fiercely debated during the last decade of the 20th century (Muravu, 2020).

The grand theory underpinning corporate governance, of which strategic performance measurement and management is a core pillar, is agency theory, which is also known as principal-agent theory. Amazingly, its origins are the parallel yet telepathic academic writings of authors Barry Mitnick and Stephen Ross from 1972 to 1973. According to Mitnick (2019), the two authors “independently and roughly concurrently” created agency theory with Ross proposing the origin of the economic theory of agency, while Mitnick proposed the institutional theory of agency, albeit with similar basic concepts underlying the two approaches. The two approaches adopted analogous concepts under distinct assumptions forming basis upon which they can be considered to be truly complementary.

To summarise, Ross (1973) studied agency from the perspective of compensation contracting challenges; thus, perceiving agency as an incentives’ dilemma. Mitnick (1973) propounded the now contemporary insight that organizations emerge around agency and evolve to address agency issues essentially caused by fundamental deficiency of agency relationships. Demeanor does not align to the principal’s preference as trying to make it perfect has no reward. To address these imperfections, societies came up with organizations, to manage or buffer them, adapt to them, or becoming chronically distorted by them. To fully understand agency, we need to incorporate both streams of Ross and Mitnick’s foundational work on agency theory - to see the incentives as well as the institutional structures (Mitnick, 2019).

As already established, most SPMM concepts are principally founded in strategic management and agency theory with its primary assumption of existence of a contractual relationship between the organisation’s principals (shareholders) and agents (management) (Kaplan, 1984; Van Thiel & Leeuw, 2002; Waweru, 2010; Franco-Santos, Lucianetti & Bourne, 2012; Muravu 2020, 2021; 2023; 2023a; Clarke, 2004; Mallin, 2004). Arguably, SPMM is one of the managerial functions delegated by shareholders to executive management under principal-agent theory.

According to Van Thiel and Leeuw (2002) NPM is premised on the practitioner theory of the separation of policy creation (by politicians or “principals”) and policy implementation (by administrators or independent “agents”) in the public management (Muravu, 2020, 2021). The application of agency theory in the private sector is straightforward but much less so in the public sector due to some sector-specific nuances (Dixit, 2002; Propper & Wilson, 2003; Gao, 2015; Muravu, 2020), as shall be proved later.

Literature posited that NPM evolved from the merger of “new institutional economics” drawn from public choice theory, transaction cost theory and principal-agent theory, contracting, competition, and the theory of the firm on the one hand and business-type “managerialism” (technical rational theory) in the public sector on the other (Den Heyer, 2011; Gruening, 2001; Hood, 1991; O’Flynn, 2007; Muravu 2020a; 2021). Despite the theoretical challenges, the centrality of SPMM in public-sector reform implies that NPM is inseparable from performance management (Christensen & Yoshimi, 2003; Metawie, 2005; Salem, 2003).

Studies on the trends and development of SPMM literature (e.g. Abdel-Kader & Luther, 2006; Chenhall & Lang-Smith, 2007; Franco-Santos et al. 2012; Henri 2004; Johnson & Kaplan, 1987; Kaplan, 1984; Metawie, 2005; Wanderley & Cullen, 2013; Waweru, 2010; Zawawi & Hoque, 2008) revealed that various researchers drew from a wide range of theories such as economic theory, contingency theory, institutional theory and many others thereby making SPMM a “heterogenic field of research with a non-dominant paradigm” (Wanderley & Cullen, 2013; Muravu, 2020).

Other theories relevant to SPMM are *stakeholder theory* (Clarke, 2004), *performance prism theory* (Adams & Andersen, 2015) and *goal setting theory* (Locke and Latham, 1990; Teo & Low, 2016) which are not discussed in detail in this paper. *Stakeholder theory* applies to corporate governance as it relates to management accountability towards other stakeholders beyond shareholders who are traditionally considered as the key and only stakeholder to which management is accountable (ironically through agency theory). *Performance prism theory* is an extension of stakeholder theory and is applicable to the service delivery facet of performance. *Goal setting theory* primarily underlies theories motivation (Vroom, 1964; Maslow, 1970; Herzberg, 2009) that relates more to HR performance management discipline.

The studies also confirmed the SPMM field’s prominence in “methodological diversity” ranging from interpretivist, critical, traditional functionalist and positivist researches and characterized by diverse research methods such as quantitative surveys, case and field studies, multiple research methods, literature reviews and “conventional quantitative approach” like “contingency-type studies” (Wanderley & Cullen, 2013; Waweru, 2010; Zawawi & Hoque, 2008; Muravu, 2020). While the theoretical and methodological diversity of the SPMM field has been challenged for supposedly hindering its theoretical development, it provides fertile ground for conducting diverse studies on subject from multiple lens which should facilitate robust theory development and contributions to practice (Muravu, 2020).

### 2.3 From traditional literature review to systematic literature review in SPMM

We adopted systematic literature review as the research mode of this study which is briefly articulated here. The main purpose of conducting a literature review in academic research, obvious as it may sound, is to contextualise the study and ground it within the existing body of knowledge. It demonstrates the author’s mastery of the subject matter, serves to inform the student of the field’s influential researchers, and guides future directions for research, all of which should ultimately help the researcher identify knowledge gaps and refine their research questions (Hart, 1998; Randolph, 2009; UNISA, 2019; Western Sydney University, 2017).

We observed that since 2000, there has been a shift from traditional “narrative” reviews to systematic literature reviews (SLR) in strategic performance measurement and management. An SLR can be considered a legitimate scientific inquiry because it provides full details and is adequately documented to facilitate replicability of the research (Franco-Santos & Bourne, 2005; Muravu, 2020). Several papers utilised SLR on SPMM in the private sector (e.g., Neely, 2005; Neely et al., 1995, 2005), a fact which can lead one to conclude that systematic literature review is fast becoming the preferred mode of reviewing literature in management research. Figure 1 below helps identify the purpose of a literature review.

### 2.4 Research gaps

The purpose of this paper is to gain a deeper and clearer understanding of the conceptualisation and application of SPMM in the public, private and third sectors. The research seeks to address the following research gaps which, to the author’s knowledge, exist at several levels.

Firstly, at *theoretical level*, the continued evolving nature of SPMM due to constantly emerging practices implies that there is a need to regularly renew its theoretical base to ensure continued academic relevance and contribution to the fast developing and highly practice-dependent field (Bourne, 2015). This paper will contribute to the theory on SPMM institutionalisation and practices.

Secondly, from a *complexity perspective*, the literature revealed that most SPMM research were simplistic as researchers targeted one phenomenon outside an entire SPMM ecosystem disregarding the fact that practitioners don’t have that choice and must concurrently deal with complexity on a daily basis (Bititci, 2011).

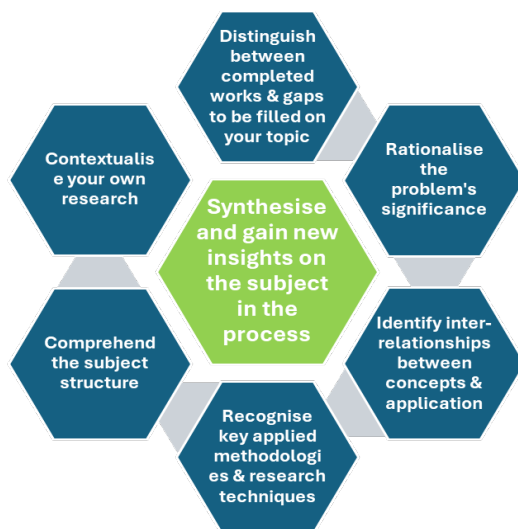


Figure 6: The purpose of literature reviews (Source: Muravu, 2020)

The study addresses this gap by incorporating multi-dimensionality, complexity, global and contextual trends in SPMM in various sectors in today's fast-paced environment as recommended in literature (Bititci, 2011; Bititci, Garengo, Dorfler, & Nudurupati, 2012; Carneiro-da-Cunha et al., 2016; Haily & Sorgenfrei, 2004). It proposes to concurrently tackle the following four dimensions of SPMM:

- The evolution of SPMM
- Derivation and utilisation of SPMM measures
- Comparison of public and private sectors and impact on former's SPMM, and
- How to successfully transplant private sector SPMM approaches to the public sector.

Thirdly, as noted, SLRs have been extensively applied in private sector SPMM literature since the turn of the century. But public sector SPPM research over the same period has mainly utilised traditional narrative literature reviews even if comprehensive (e.g. Mackie, 2008; Mimba et al., 2007; OAGC, 2000; Pazvakavambwa & Steyn, 2014; Ross, 2011, 2012; Thomas, 2006; Tudor & Mike, 2013). This means that public sector SPMM research has lagged behind and this may negatively impact the sector's theoretical development. The adoption of the progressive and robust method is a timely opportunity to utilise SLR in furtherance of public sector SPMM theory development and helps further position SLR as a preferred mode of reviewing literature so that it does not lag behind the other sectors.

### 3. Method

The paper will synthesise conceptualisation and application of SPMM in the public sector through a comprehensive systematic literature review which will provide conceptual underpinning for two subsequent empirical papers. The following outlines the link between the identified research gaps and the research questions which form the basis of this paper. The paper's aims to answer the following research questions:

- What is the evolution and status of SPMM and what key insights that can be drawn from the literature?
- How does the public sector manage performance through measures?
- What are the main similarities and differences between the public and private sectors and their implications on public sector measures of performance?
- How can successful private sector approaches be leveraged for the benefit of public sector performance measurement and management?

The specific objectives are to:

- Review evolution and status of SPMM research and practice in private, public and third sectors;
- Explore specific SPMM concepts and measures, and analyse how the public sectors manage through measures; and
- Conduct a comparative analysis of private and public sector characteristics and establish their implication on public sector measures of performance.

Establish how private sector SPMM practices can be successfully transplanted to the public sector and the challenges associated with such approaches.

To address the research questions, the author adopted a systematic literature review (SLR) protocol to conduct a theoretical synthesis and thematic analysis on the conceptualisation and application of SPMM in the New Public Management (NPM) context. Due to space constraints, the following section briefly articulates the SLR protocol and provides the rationale for adopting the systematic review in this study and concludes with articulating how the SLR was actually conducted.

#### 3.1 Systematic literature review protocol

Systematic literature review (SLR) is a research methodology which originated in the medical sciences field in the early 1990s and was introduced in management research at the turn of the 21st century and has been widely adopted in the SPMM field since then (Denyer & Tranfield, 2006, 2009; Franco-Santos & Bourne, 2005; Franco-Santos, et al., 2007; Franco-Santos et al., 2012; Hall, Beecham, Bowes, Gray, & Counsell, 2012; Kareithi & Lund, 2012; Pfefferkorn, Bititci, & Jackson, 2017; Tranfield, Denyer, & Smart, 2003; Bourne, Neely, Mills, & Platts, 2003; Taticchi, Tonelli, & Cagnazzo, 2010; Taticchi, Balachadran, & Tonelli, 2012; Muravu 2020, Muravu, 2020a, Muravu 2021, Muravu 2023, Muravu 2023a ).

According to Franco-Santos & Bourne (2005) it is an innovative, methodical, transparent, replicable research methodology which provides holistic lens of the subject under study through a more thorough conceptual synthesis which is less prone to researcher bias compared to traditional "narrative" reviews. Systematic review was considered appropriate and adequate to be applied in this study because it has demonstrably produced finer, and richer research compared to traditional "narrative" literature reviews as proven by its widespread adoption in SPMM extant literature since the turn of the 21st century.

Since SLR is now an entrenched research methodology and well-articulated in literature, there is absolutely no academic value in repeating it here in full. The SLR comprises three main stages (planning, conducting, and reporting the review) and twelve phases (Tranfield et al., 2003) which are summarised in Table 1 below. Specifically, the same SLR applied to Muravu 2020, 2020a, 2021, 2023, 2023a is the same methodology, applied to this study, so we refer you to those studies if you would like to acclimate with the process.

Table 11: Methodology for conducting a systematic literature review

| Stage                 | Phase  |
|-----------------------|--|
| Planning the review   | 1. Identification of the need for a review<br>2. Specifying the research question(s)<br>3. Scoping Study<br>4. Developing and evaluating a review protocol   |
| Conducting the review | 5. Identification of studies<br>6. Selection of the primary dataset<br>7. Study quality assessment<br>8. Data extraction and monitoring<br>9. Data synthesis |
| Reporting the review  | 10. Specifying dissemination mechanisms<br>11. Formatting the main report<br>12. Evaluating the report   |

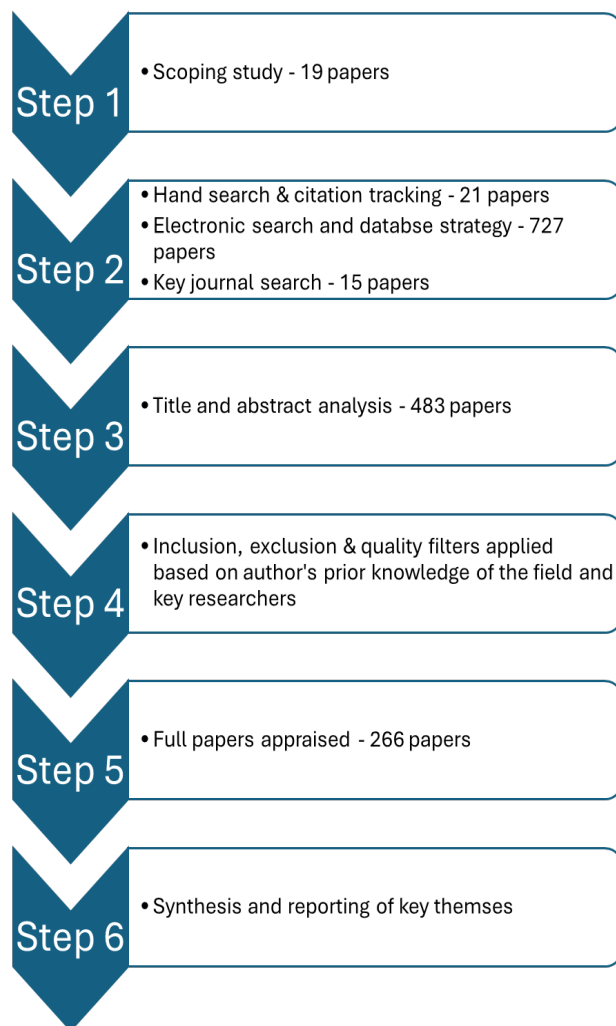
Source: Muravu (2020)

The only highlight is that Muravu (2020) rechristened the traditional Phase 6 of the SLR from “Selection of primary studies” to “Selection of the primary dataset” to reflect the first-time bibliometric protocol was adopted in an SLR. Unlike the original SLR, this approach involves the inclusion of the so called “grey” or unpublished literature to acknowledge the fact that contemporary research requires more than just scholarly articles to conduct rigorous and effective research. Consequently, this systematic literature review was conducted on both published and unpublished literature documents covering the three sectors highlighting that getting insights from key practitioners and epistemological communities contributes to the richness and robustness of research. Figure 2 below shows a summary of the research design for this paper.

|   |   |
|---|---|
| Paper /Type   | Theoretical paper   |
| Research Strategy   | Systematic literature review  |
| Data collection methods   | Contextual & thematic analysis  |
| Pre-Systematic Review [Research question refining]                  | <b>STAGE 1</b><br>Systematic extraction/ definition of thematic pillars on SPMM linked to research questions  |
| Core Pre-Systematic Review [Data collection instruments/ processes] | <b>STAGE 2</b><br>Step 1: Scoping study<br>Step 2a: Hand search & citation tracking<br>Step 2b: Electronic search & database strategy<br>Step 2c: Key journal search<br>Step 3: Data identification & extraction<br>Step 4: Applying selection criteria<br>Step 5 & 6: double phase, single review process, extracting insights, data categorisation and reporting according to pre-identified themes |
| Data sources  | Internet searches & Electronic databases (EBSCO, J-Stor and Google Scholar)   |

Figure 7: The research design for the study (Source: Adapted from Muravu, 2020)

Figure 3 is a schematic illustration of the systematic review process.



**Figure 8:** Summary of the systematic literature review process applied to the study (Source: Muravu, 2020)

The next section presents a discussion of the findings of the SLR.

## 4. Findings

The systematic review revealed that SPMM has evolved from its original use in production and operations to more complex and operational contexts including proliferation to public and third sector organisations in response to the changes in organisational context and operational settings (Neely et al., 1995; Bititci et al., 1997; Muravu 2020). The SLR's findings are presented and discussed in the four pre-defined thematic areas, which may overlap and are mutually dependent, which reveals that the various related concepts and theories evolved concurrently with field.

### 4.1 Chronology, evolution and revolution of strategic performance measurement and management

For a complete understanding of SPMM in the New Public Management (NPM) context, the systematic review traced the trends of the concepts, theories, and practice in the generic SPMM field, to establish how their development has evolved in the private, public and third sectors over time. This could help settle numerous misconceptions which may constrain the development of theories and advancement of the subject into a distinct field (Muravu, 2020; 2020a). For example, it is widely believed that SPMM was invented in the private sector



and transplanted to the public and third sectors (Metawie, 2005; Salem, 2003) but do the findings of this study validate that notion?

The literature opines that the early history of public sector performance measurement is not well known and there are further claims that there is confusion surrounding its purpose (Williams, 2003; Bouckaert, 1990; 1992). In our view, you cannot understand something unless you know what it is and its purpose and this is a major issue with the understanding of public sector SPPM. SPMM has constantly changed, and it is necessary to review its evolution to establish the state-of-the-art especially in the public sector. Prior research has determined “what was” and “what is” and attempted to define the “what will be” of SPMM and the outcome of this study will reinforce the “state of the art”. The following are the key findings on the chronology, evolution, and revolution of SPMM in the private, public and third sectors.

#### 4.1.1 Strategic performance measurement and management in the private sector

The systematic review revealed that private sector SPMM evolution is relatively well-documented and is discussed in detail in Muravu (2020). It categorised SPMM evolution literature into the following three groups

- The first category did not include evolution at all.
- The second category discussed SPMM history succinctly (Kaplan & Norton, 1987a; Noreen, 1987; Amaratunga & Baldry, 2002; Henri, 2004; Bento & White, 2010; Nudurupati et al., 2011; Bourne et al., 2000; Franco-Santos et al., 2012; Goshu & Kitaw, 2016).
- The third group deep dived into SPMM evolution and grouped them into theme-based specific eras (e.g. Neely, 2005; Bourne et al., 2000; Eckerson, 2009; Bititci et al., 2012; Carneiro-Da-Cunha et al., 2016; Goshu & Kitaw, 2016; Johnson, 1981; Kaplan, 1984; Johnson & Kaplan, 1987; Ridgway, 1956; Muravu 2020; Waweru, 2010; IFAC, 1998).

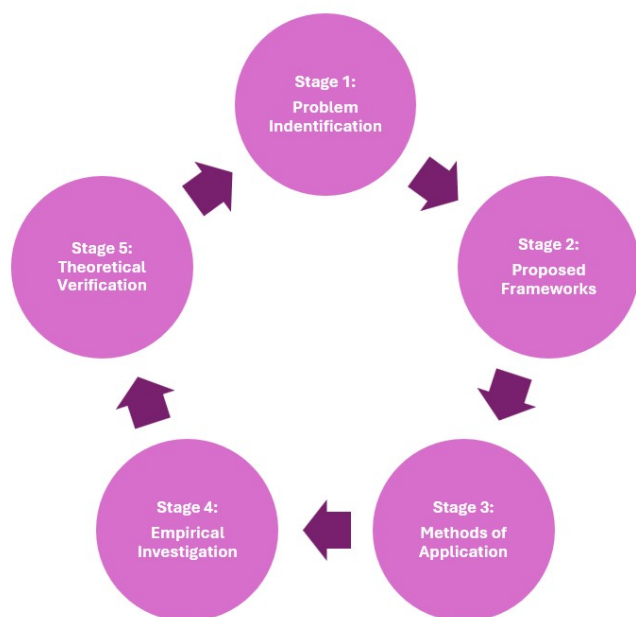
This taxonomy reveals the literature consensus (e.g. Neely, 2005; Nudurupati et al., 2011; Bourne, Mills, Wilcox, Neely & Platts, 2000; Bititci et al., 2012) that SPMM evolution and revolution comprised five broad thematic phases which approximated the generic life-cycle approach in Figure 4 below.

The second and third categories classified the evolution of SPMM literature based on a broad themed timeline and the evolution of crucial SPMM elements and dimensions into between 2 and 5 periods/eras, life-cycle stages, distinct phases/stages, roles, views, main ways and major elements as summarised below. Please refer to Muravu (2020; 2021a) for a more detailed review.

- 2-3 periods/eras Kaplan & Norton (1987a); Noreen (1987); Franco-Santos et al., (2012); Goshu & Kitaw (2016), Carneiro-Da-Cunha et al., (2016)
- 2-5 life-cycle stages Neely (2005); Bourne et al. (2000); Eckerson (2009); Nudurupati et al (2011); Bititci et al., (2012); Goshu & Kitaw (2016)
- 3-4 distinct phases/stages Bento & White (2010); Waweru (2010); IFAC, (1998); Goshu & Kitaw (2016)
- 3 roles Amaratunga & Baldry (2002), Henri (2004)
- 2 views (Henri, 2004)
- 4 main ways (Goshu & Kitaw, 2016), and
- 5 major elements (Goshu & Kitaw, 2016)

The SLR identified eight major phases which coincided with major developments in the evolution of the SPMM field and were categorised based on broad periodic themes. Table 2 below provides a summary of the identified various evolutionary phases, the related key developmental themes and contributions made to the SPMM field. Our decision to classify the phases into more restricted phases, unlike in past studies, ensured that some nuances which were potentially compromised by broad themed periods, were magnified accordingly.

A key revelation of the systematic review was that the 1980s and 1990s experienced the “performance measurement revolution” (PMR) which marked the transition from traditional “finance-based” performance measurement systems to new “balanced” SPMM systems (Carneiro-da-Cunha et. al., 2016; Kaplan, 1984;

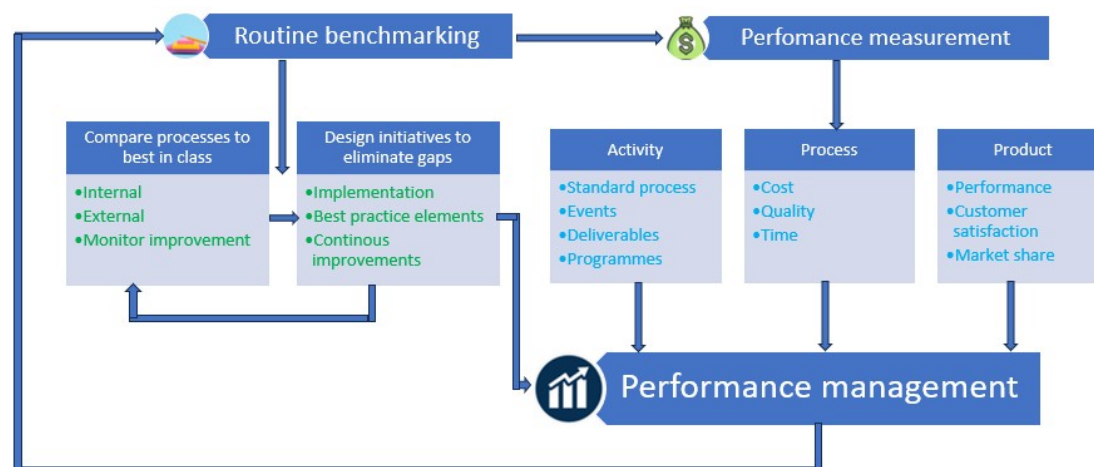


**Figure 9:** The generic life cycle of evolution of the SPMM field (Sources: Muravu, 2020; Neely, 2005; Bourne et al., 2000)

Hayes & Abernathy, 1980; Neely, 2005; Keegan, Eiler, & Jones, 1989).

The early 1990s to mid-1990s saw amalgamation of organisational performance measurement literature with earlier strategy works which introduced the concept of strategic control systems in which the existing performance measurement system became a sub-system of a broader system incorporating goal setting, feedback, and reward or sanction within the organisation thus strategists argued for the wider system to align with organisational strategy (Neely, 2005; Hrebiniak & Joyce, 1984; Lorange, 1982).

In the mid-1990s, the literature recommended adoption of “closed loop performance management systems” (Figure 5) to address existing IPMS design problems or the “challenge of moving from performance measurement to performance measurement and management” (Neely et al., 1995).



**Figure 10:** A “closed loop” performance management system (Source: Adapted from Neely et al., 1995, 2005)

Table 12: Private sector SPMM evolutionary phases, key developmental themes, and purpose

| Phase | Name                                     | Period                           | Key developmental theme  | Purpose and scope/environmental influences   | Sources  |
|-------|--|----------------------------------|--|--|--|
| 1     | Pre-industrial age                       | Prior to 1800                    | Simple bookkeeping records dating back to human trade or ancient civilisations with the earliest mention being early 3rd century.  | Unsophisticated accounting records for recording business transactions for individuals and individual businesses.  | Amaratunga & Baldry (2002), Argyris (1952), Bento & White (2010), Bititci (2000, 2011), Bititci et al. (1997, 2012), Bourne et al. 2000; Neely et al. 2000, Curtright, Stolp-Smith, & Edell (2000), De Waal (2003), Bourne et al. (2003), Bourne & Neely (2000), Carneiro-Da-Cunha et al. (2016), Chenhall (2003), Chenhall & Lang-Smith (2007), CIMA (2002), CIMA (2002), Drucker (1954, 1994), Eccles (1991), Forlan & Browne (2005), Franco-Santos & Bourne (2005), Franco & Bourne (2003), Goshu & Kitaw (2016), Hayes & Abernathy (1980), Henri, (2004), Johnson (1981,1990), Johnson & Kaplan (1987, 1987a, 1987b), Kaplan (1984, 2001), Kaplan & Cooper (1997), Kaplan & Norton (1992, 1993, 1996, 1996a, 2001, 2001a, 200b, 2004), Kennerley & Neely (2003), Lebas (1995), Marr & Neely (2001), Marr & Schiuma (2001, 2003), Martindell (1950), Murby & Gould (2005), Neely (1999, 2002, 2005), Neely & Adams (2001), Neely et al. (1995, 1996, 2000, 2002), Noreen (1987), Nudurupati et al. (2011), Nudurupati & Bititci (2005), PEA (1999), Ratnayake et al. (2009), Ridgway (1956), Ridwan et al., (2013), Simons (1995), Taticchi et al. (2010), Waggoner et al. (1999), Wanderley & Cullen (2013), Watts & McNair-Connolly (2012), Stefanovic (2014) |
| 2     | The industrial age                       | from around 1800 to 1925         | Early SPMM financial measures and practices were devised by practitioners and concepts later appeared in literature.   | Management accounting was developed to support decision-making and control in emergent modern enterprises.   |  |
| 3     | The innovation inertia period            | From around 1925 to 1950         | There was minimal to no major innovation during this period but does not agree on the timing. The <i>Tableau De Board</i> was a major invention.   | The rise of external financial reporting due to increased external ownership in the modern corporation.  |  |
| 4     | Early stages of globalization            | Around 1950 to 1960              | General Electric invented “multidimensional measures” supported by “dysfunctional consequences of measurements” movement.  | Dissatisfaction with existing finance-based performance measures led to calls for multi-dimensional systems.   |  |
| 5     | The early multi-dimensional age          | 1960 to around 1980              | Introduction of agency theory to management accounting literature in the late 1970s helped in solving performance measurement problems   | Increased debate on multiple-dimensional performance measures leading to “performance measurement revolution”.   |  |
| 6     | The “performance measurement revolution” | Late 1970s to early 2000s        | Sudden and rapid progression in developments and interest in the SPMM field evidenced by exponential growth in publications and e-resources on the subject.                                      | Directly led to development of multidimensional performance measurement and management system based on “balanced set of measures”  |  |
| 6.1   | The “relevance lost” period              | Late 1970s to early 1990s        | Raging debate on the “financial” vs. “non-financial” measures.   | Led to realisation that the traditional SPMM systems that were intended for competition during the previous tangible assets phase were no longer adequate for era of intangible assets.                            |  |
| 6.2   | The IPMS period                          | Early 1990s to mid to late 1990s | Design, implementation, and use of multi-dimensional SPMM systems with “balanced measures” through introduction of integrated performance measurement systems (IPMS).                            |  |  |
| 6.3   | The SPMM period                          | Late-1990s to early 2000s        | Saw shift from performance measurement to performance management (Figure 3 below) to SPMM.   |  |  |
| 7     | The Inter-organisational SPMM period     | 2000s to around 2010             | Focus shifted from traditional intra-organisational to inter-organisational SPMM such as supply chain and extended enterprise SPMM   | Increased importance of external stakeholders meant that the external environment was identified as the next “SPMM frontier”.  |  |
| 8     | The innovative/disruptive SPMM age       | 2010s to date                    | Focus is now shifting to a new generation innovative extended SPMM. The proposed “next generation” SPMM models address shortcomings of previous models through customisable comprehensive models | Increased complexity of the external environment due to disruptive technologies and need for proactive ICT-driven next generation SPMM models responsive to emerging contextual trends and environment influences. |  |

Source: Muravu (2025)

This called for organisations to anticipate necessary changes in their strategic direction and have a clearly defined methodology for effecting strategic change thereby making performance measurement an integral part of the strategic management planning and control system of the entire organisation (Forlan & Browne, 2005, citing Lebas, 1995; Amaratunga & Baldry, 2002; Bourne et al., 2003; Kaplan & Norton, 2001a; PEA, 1999). In the late 1990s and early 2000s, the concept further metamorphosed into the term strategic performance measurement and management thereby confirming its key role in the strategic management of organisations in SPMM literature and cementing the evolution from mere performance measurement to the broader SPMM concept (Argenti, 1997; Bititci et al., 2012; Bourne et al., 2000, 2003; Franco-Santos & Bourne, 2005; Kaplan & Norton, 2001a, 2001b; Neely et al., 1996, 2000).

For the balanced SPMM systems of the 1990s to address most of the shortcomings of the legacy finance-based systems (Bourne et al. 2003; Argenti, 1997), from the late 1990s, the literature started addressing the outstanding challenges such as what to measure (Bourne et al., 2003; Neely et al., 1996; Franco-Santos & Bourne, 2005), how to actually manage organisational performance through performance measures (Bititci et al., 2012; Bourne *et al.* 2000; Neely *et al.* 2000; Franco-Santos & Bourne, 2005) and establishing techniques for clarifying set objectives (Bititci et al., 2012).

This called for basic integration of performance measurement with the organisation's strategic management (Franco-Santos & Bourne, 2005) which, in turn, required a management process to facilitate it (Franco-Santos & Bourne, 2005; Bourne et al., 2000; Bourne et al. 2003; Kaplan & Norton, 2001a & 2001b). The modern integrated performance measurement systems would never be truly "balanced" without incorporating the "external environment" that would provide managers with information pertaining to customers, competitors, and other external stakeholders. Figure 6 below is a schematic illustration of the SPMM process.



**Figure 11:** The performance measurement and management process (Source: Muravu, 2020)

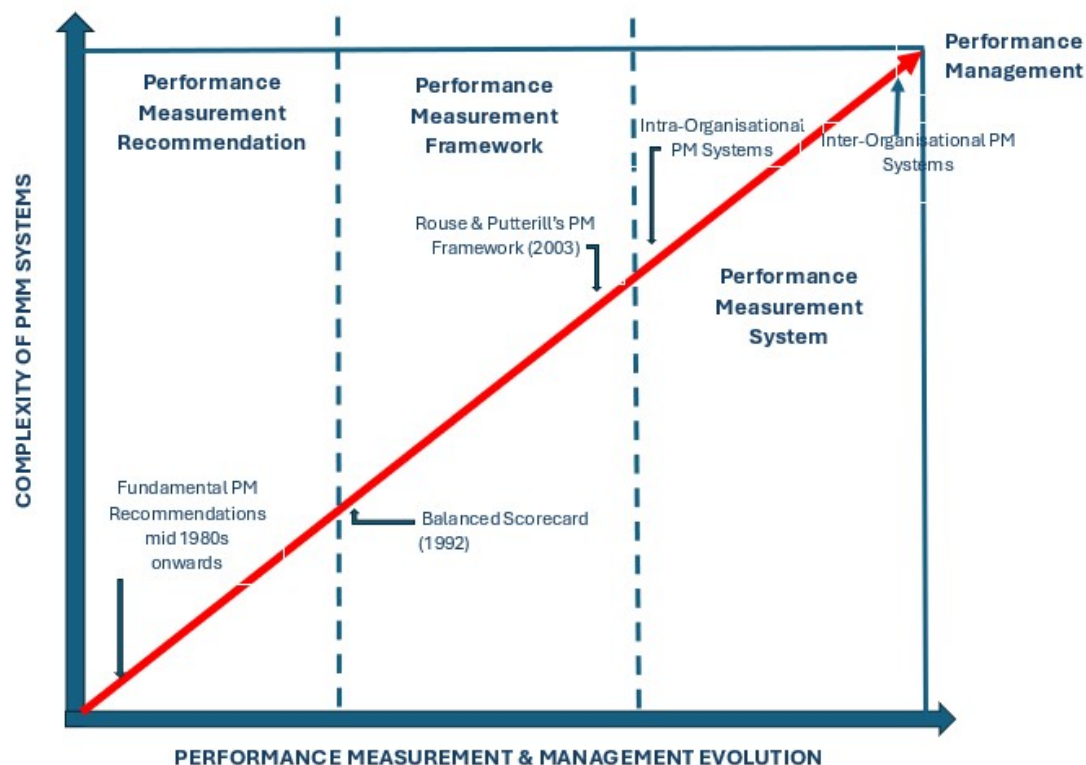
While the traditional SPMM systems concentrated on the internal environment (the organisation), contemporary SPMM systems focused on the external operational environment as well thereby cementing that the SPMM had to interact with the wider environment as was seen with extended SPMM systems such as supply chain or extended enterprise SPMM.

Figures 5 & 6 reflect the literature consensus on the iterative nature and contextual existence of performance measurement and performance management and that performance measurement is not an end in and by itself (performance management must closely follow it and that the twin process have an iterative relationship i.e. management both precedes and follows measurement while performance management affirms the feedback and feedforward role of performance measurement information, that the consequences of measurement transcended reporting on past actions and that any organisation that desires to make effective use of its performance measurement outcomes must be capable of transitioning from mere integrated performance measurement to integrated performance management (e.g. Carneiro-da-Cunha et al., 2016; De Waal, 2003; Lebas, 1995; Amaratunga & Baldry, 2002; Bourne et al., 2003; Forlan & Browne, 2005; Taticchi et al., 2010; Bourne et al., 2000; Bourne et al., 2003; Kaplan & Norton, 2001a, 2004; Nudurupati et al., 2011; Waggoner et al., 1999; Neely et al., 1995; Bititci, 2011).

The modern integrated performance management systems (IPMSs) was never truly "balanced" without incorporating the "external environment" providing managers with information pertaining to customers, competitors, and other external stakeholders. Prior to the mid-1990s performance measurement was content with measurement, analysis and response (three middle boxes in Figure 6 above) or intra-organisational PM but with time these frameworks and systems evolved into complex ones largely impacting strategy and incorporating the external environment thereby engulfing the entire Figure 6 while impact on the later will result in inter-organisational SPMM systems like supply chain SPMM and Extended Enterprise SPMM (Figure 7 below).

The apparent continued encroachment of the performance measurement literature into previously considered exclusive domain of performance management, has resulted in the amalgamation of the two literatures due to increased synonymity reflective of the evolutionary process or the transition from integrated

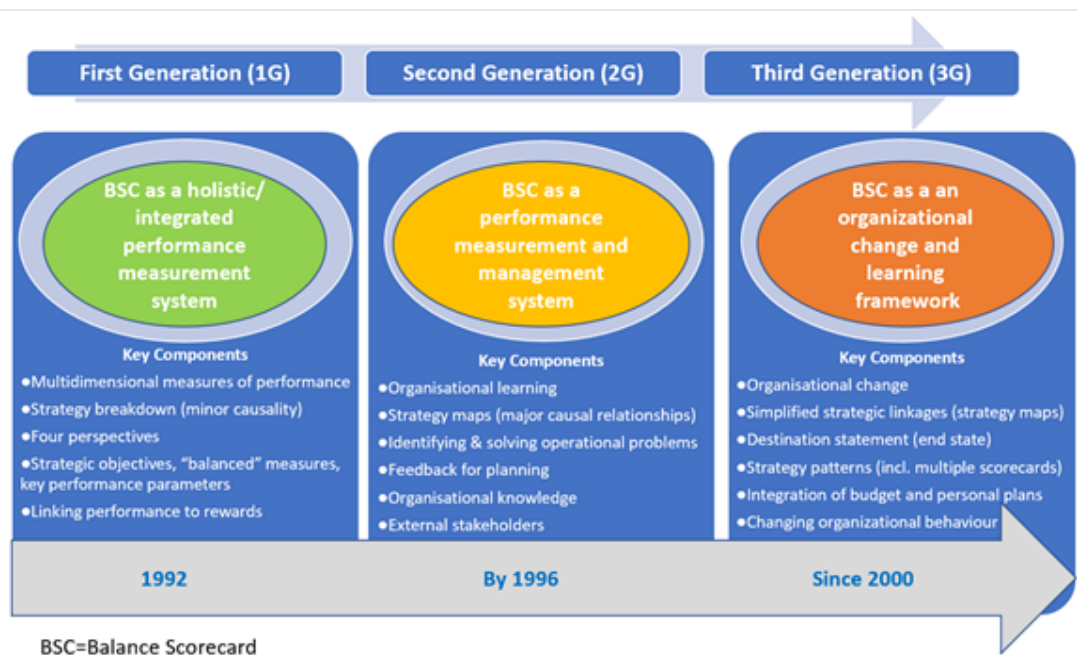
performance measurement to integrated performance management in Fig. 7 below, which aptly summarises the SPMM evolution process up to first decade of the 21<sup>st</sup> century.



**Figure 12:** The evolutionary process of performance measurement (Source: Forlan & Browne, 2005)

Perhaps the importance and greatest personification of the evolution from performance measurement through performance management to strategic performance management is visualised through the evolution of the Balanced Scorecard (BSC) from first generation (1G) Integrated Performance Measurement Tool in 1992 through the second generation (2G) Performance Management Framework which became increasingly associated with strategy implementation by 1996 to the third generation (3G) Organisation and Change Management Framework associated with strategic management which if fully embedded in the organisation could facilitate strategy refinement by 2000 (Marr & Schiuma, 2003; Kaplan & Norton, 1992, 1996a, 2000b; Murby & Gould, 2005; Folan & Browne, 2005; Nudurupati et al., 2011; Cobbold & Lawrie, 2002). Figure 8 below shows a framework for the evolution of the BSC from 1G to 3G adapted from Kaplan & Norton (1992, 1996a, 2001b); Lawrie & Cobbold (2004); Marr & Schiuma (2003).

Muravu (2020) notes that there were also significant parallel developments during the performance measurement revolution, namely; diffusion of SPMM into other fields such as TQM and knowledge management, emergence of SPMM subfields such as SME, public sector and non-profit sector SPMM, debate on the professionalisation of SPMM into a distinct academic field and emergence and dominance of BSC as a concept and core SPMM tool, and performance beyond measurement which begrudges the role of SPMM in the management of organizations, all of which can strongly justify separate academic inquiries.



**Figure 13:** Framework for the evolution from 1G to 3G Balance Scorecard (Muravu, 2020)

#### 4.1.2 Strategic performance measurement and management in the public sector

Nyhan and Marlowe (1995) make strong claims that "performance measurement is founded in public administration" while Lynch and Day (1996) posit that the origins of contemporary government performance measurement owe it to the late 19th century "progressive movement and the scientific management movement" (p.405). Authors provided a thorough historical account of governmental performance measurement (e.g. Williams, 2003; Lynch & Day, 1996). Brignall and Modell (2000) claim scholars are divided, some claiming that "... public sector provides a leading edge on issues of performance measurement", while others counter-argue, 'the performance measurement systems have measured too many things and the wrong things.'

While SPMM, through the moniker NPM, was an indispensable element of public sector modernisation during the last quarter of the 20<sup>th</sup> century years, it was not new at all (Bouckaert & Peters, 2002; Pollitt & Bouckaert, 2000) contrary to some beliefs. These literary assertions support the role importance of SPMM in the public sector and early empirical approach to government performance management helps develop a robust understanding of SPMM practices and how they influence modern day public management reforms like NPM.

The systematic review also established seven discrete periods from the literature accounts on the history of the development of public sector SPMM as contained in Table 3 below. Most eras relate to public sector antecedents and a few to the "performance measurement revolution" and contemporary private sector SPMM systems already articulated in Table 2 above (e.g. Salem, 2003; Metawie, 2005; Ruzita, Azhar, & Hasan, 2012). A brief outline of the evolutionary phases, key developmental themes and purpose is provided in Table 4 below.

#### 4.1.3 Strategic performance measurement and management in the third sector

Third sector organisations (TSOs), also known as non-profits or non-governmental organisations are organisations that are neither public sector nor private sector and are generally independent of government (NAO, 2010.; Muravu, 2020) but may collaborate with both sectors. The earliest TSOs go back to the mid- 19<sup>th</sup> century when the World's YCMA was in formed in 1844 to pursue social objectives (Glaeser & Shleifer, 2001). Since then, TSOs have become a critical sector of the global economy and evidently play a key role as surrogate to government through implementation of social programmes which results in positive social change in many countries (Anheier, 2000; Brickley & Van Horn, 2000; Muravu, 2011; 2020).

Their rapid growth since the 1960s and 1970s (Ebrahim, 2003; Haily & Sorgenfrei, 2004) was attributed to donors' belief that they are more cost effective in key social service delivery and have better societal reach hence they are an important cog in society's political and socio-economic development. TSOs Models range from mimicking government agencies, commercial businesses while others are just casual associations (Anheier, 2000; Muravu, 2011).

Even though TSOs have existed for nearly two centuries not much is documented on third sector SPMM at least until the rapid progression of the sector around the 1970s. The short history of SPMM in the sector and resultant dearth of published TSO SPMM literature explains the relative brevity of this section compared to private and public sectors.

The imperative for TSO performance measurement echoes that for both the private and public sectors. The performance challenges of TSOs were first magnified after WWII and the sector adopted the Logical Framework (LF) as the main planning and performance measurement tool in the early 1970s. The LF evolved from Drucker's (1954) MBO which had widely diffused into the private sector since the 1950s. Peter Drucker introduced Management by Objectives (MBO) in his 1950s book, "The Practice of Management". MBO was based on the following five principles:

- Cascading corporate goals and objectives,
- Specific objectives for each member of the organization,
- Participative decision making,
- Explicit time period, and
- Performance evaluation and feedback.

The Logical Framework was first developed by the United States Department of Defence and adopted by USAID in the late 1960s to early 1970s. It is used to plan, monitor, and evaluate programmes, activities, and projects (UNESCO website, 2015). The LF was gradually adopted during the 1990s, by public sectors in OECD countries as part of their NPM reforms to address economic, social, and political challenges and demands for better and more responsive services and accountability.

The LF has evolved into modern Results-Based Management (RBM) methodologies that are common as a new aspect of public management in the public and third sectors today. There is a direct linkage between modern RBM Systems and Drucker's 1950s MBO principles.

**Table 13:** Public Sector SPMM evolutionary phases, key developmental themes, and purpose

| Phase | Name  | Period                                  | Key developmental theme   | Purpose and scope/environmental influences   | Sources  |
|-------|---|---|---|--|--|
| 1     | Genesis of governmental performance measurement     | Late 18th century to early 20th century | Exemplified in the New York Municipal Bureau of Research's ("the Bureau") and early theorists' and practitioners' influence on development of governmental performance measurement. | Efficiency in public administration and work measurement saw development and implementation of NPM-like concepts and practices at the beginning of the 20th century. | Binnendijk (2000), Friedman (2005), Fryer & Antony, (2009), Gadenne & Sharma (2009), Greatbanks & Tapp (2007), Kaplan (2001), Kouzmin, Loffler, Klages & Korac-Kakabadse (1999), Lawson (2006), Lynch & Day (1996) Mayne (2007), Metawie (2005), Northcott & Llewellyn (2004), Mar (2008), Macnab, Carr & Mitchell (2010), Niven (2002), Northcott & Taulapapa (2012), Nyhan & Marlowe (1995), O'Neill (2006), Parasibu et al. (2016), Pazvakavambwa & Steyn (2014), PEA (1999), Power (2007), Ridwan, et al. (2013), Salem (2003), Shipley (2009), Thomas (2006), Wachira (2013), Williams (2003) |
| 2     | Public sector innovation inertia                    | 1940s to 1960s                          | Public sector SPMM efforts dwindled during this period and no specific reason is provided for this in the literature but we think possibly due to WWII.                             | This was so despite the introduction of operations research induced techniques after WWII.   |  |
| 3     | Public services/systematic social measurement era   | 1960s and 1970s                         | Some authors traced early SPMM attempts to evaluation and review and the failed attempts at large scale strategic planning during this period.                                      | Systematic social measurement movement advocated for introduction and reporting of "social indicators" just like "economic indicators".                              |  |
| 4     | NPM 1 - 3Es (Economy, efficiency and effectiveness) | 1980s to early 1990s                    | NPM is widely covered in literature and the two subsequent papers and hence is not discussed in detail here.  | To achieve "3Es" in public sector management to reduce taxpayer burdens, in light of fiscal crisis experienced in Western countries.                                 |  |
| 5     | NPM 2 - Quality and consumer satisfaction           | Early to late 1990s                     | Reflect the sustained implementation of NPM reforms but with a shift towards new dimensions of quality and customer satisfaction as second generation NPM.                          | Lack of meaningful progress in implementing performance systems led to shift focus to improved quality and customer satisfaction.                                    |  |

|   |  |                      |   |   |  |
|---|--|----------------------|---|---|--|
| 6 | Public Sector SPMM Implementations and Empirical Studies | Late 1990s and 2000s | Many empirical studies were conducted on implementation of SPMM systems in the public sector resulting in the growth of an empirical body of literature to test their fit-for-purpose.                                      | Widespread implementation of BSC and RBM-type system under NPM-led government reforms.  |  |
| 7 | The Innovative/ Disruptive SPMM age                      | 2010s to date        | New generation of multi-faceted, multi-level, forward-looking, ICT driven “next” generation extended SPMM models and KPIs which seem to forecast the direction SPMM trajectory is likely to take in the foreseeable future. | Need for proactive SPMM models supported by KPIs with ICT capabilities such as data extraction predictive analytics, making them responsive to modern day business environment and that will play a greater role in supporting 21st thriving societies. |  |

Source: Muravu (2025)

RBM was adopted by international organizations especially the United Nations System to improve their systems’ effectiveness, transparency, accountability, and result-orientation (UNESCO website, 2015).

Following the SPMM implementation boom in the private sector and public sectors, TSOs followed suit in the 1990s and 2000s. Around 2000, concurrently with the public sector, the literature started interrogating these TSO SPMM systems implementations. Issues of differences with the private sector and their impact on suitability of the new systems took centre stage which highlighted TSOs’ weaknesses in strategy articulation. Notwithstanding the challenges, it was encouraging that there is evidence that several TSOs successfully implemented customized contemporary SPMM systems such as the Balanced Scorecard making them strategic and able to build competitive advantage. The systematic review identified six phases of evolutionary development of SPMM in the third sector which the author named as contained in Table 4 below.

#### 4.2 Derivation, application, and use of public sector measures of performance

The evolution of SPMM revealed that performance measures are as old as the subject itself. Cognoscenti adopt the term KPI to differentiate between ordinary and strategically aligned metrics even though practically, performance measures are more commonly used in generic SPMM literature while KPIs are usually adopted in the public sector (Boyle, 2000; Eckerson, 2009). Consequently, the two terms are used interchangeably here for simplicity. Performance measures, their quality and appropriateness are critical and have been central to the entire SPMM process and in providing a framework to assess the effectiveness of the organisation’s strategic management processes (Bititci et al., 2012; Bourne et al., 2000, 2003; Eckerson, 2009; Franco-Santos & Bourne, 2005; Kaplan & Norton, 2001a, 2001b; Neely et al., 1996, 2000). This section attempts a thorough interrogation of how performance measures are derived, applied, and used at various levels of the public services through a deep-dive review of SPMM models, systems and approaches which have been implemented in the public sectors of many countries globally over the last 40 years.

##### 4.2.1 Models for public sector measures of performance

Many different SPMM frameworks or models were implemented by governments across the world under NPM and were typically based on the 3 “E”s or the so-called “triumvirate of virtue: economy, efficiency and effectiveness” (Brignall & Modell, 2000, p286; Politt, 1986; Mackie, 2008, p.21; Ruzita et al., 2012; Niven, 2002; Pollit, 2005; Thomas, 2006) resulting in universal implementation and institutionalisation of SPMM that it became pervasive in some public sectors albeit under different monikers. Several examples of public sector SPMM descriptive models, most of which employ “results-based management” approaches were identified in the system review and are briefly outlined below.

##### *The Quality and Efficiency Cycle*

The quality and efficiency cycle helps public sectors embed SPMM within overall improvement process which is a fundamental literature recommendation for benchmarking (c.f. Parrado & Loeffler, 2013; Muravu 2023a). For example, for benchmarking to be effective in PSOs, the ‘Quality and Efficiency’ model



developed by *Governance International* outlines how to embed it by incorporating five phases, namely define, measure, manage, and improve (Figure 9 below).

*Phase 1: Defining the services/ policies to benefit from benchmarking.* This involves consultation with users and other stakeholders to understand what the benchmarking target(s). Not everything will be benchmarked, the key point is, users and stakeholders are best placed to define persistent challenges and the required public services support.

*Phase 2: Performance measurement and comparison.* Once the benchmarking target is identified, performance is measured to evaluate the quality of the public services and policies incorporating some qualitative information for unmeasurable elements of the service/ policy.

*Phase 3: Cautious management of change.* Following pinpointing improvement target areas (or the **what**) the next stage is to identify **how** to improve. This involves interrogating reasons for current levels of performance. *Phase 4: Learn for improvement from benchmarking.* Staff members from the affected processes could form a team to design a detailed improvement plan to address identified challenges and any issues that are cross-cutting to the organization.

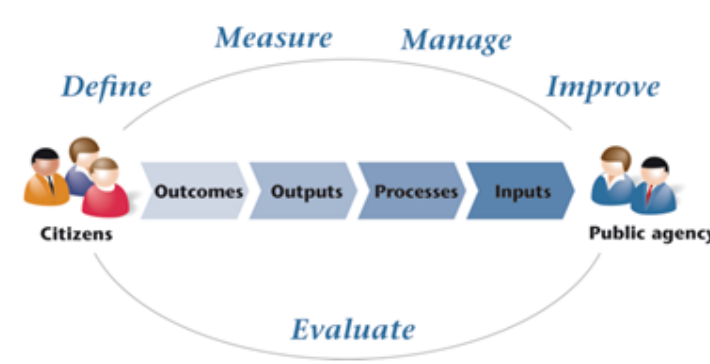
*Phase 5: Evaluate performance improvements.* The final cycle involves validating if there has been real performance improvement in service delivery or policy setting through follow up benchmarking exercises, peer reviews or other techniques.

**Table 14:** Phases of evolutionary development of SPMM in the third sector

| Phase | Name  | Period                   | Key developmental theme   | Purpose and scope/environmental influences   | Sources   |
|-------|---|--------------------------|---|--|---|
| 1     | “Ethical-social motivation” and “technical professionalism” era | Mid-19th century to 1945 | TSOs work was premised on “ethical-social motivation” and “technical professionalism” and delivered by international development professionals responding to natural catastrophes or humanitarian disasters.  | "Ethical-social motivation" and "technical professionalism" were considered sufficient reasons for the existence of TSOs during this period, so their performance was not questioned.  | Anheier, 2000; Glaeser & Shleifer, 2001; Ramadan & Borgonovi, 2015; Haily & Sorgenfrei, 2004; Brickley & Van Horn, 2000; Mayne, 2007; Salamon & Anheier, 1997; Williams, 2003; Kareith & Lund, 2012; Awadallah & Allam, 2015; Binnendijk, 2000; Mayne, 2007; Micheli & Kennerley, 2005; Murby & Gould, 2005; Broekcling, 2010; Keehley & Abercrombie, 2008; Hoque & Parker, 2015; NCVO/LSE, n.d.; Anheier, 2000; Kaplan & Norton, 2001a |
| 2     | Efficiency and effectiveness era                                | Around 1945 to 1970s     | After WWII, TSOs were criticized for losing professionalism and failing to meet targets. Their rapid growth was due to donors recognizing their efficient public service delivery, policy implementation, and adaptability in complex situations.   | Ethical-social motivation and technical professionalism declined, making performance a key factor in justifying TSOs' efficiency and effectiveness.  |   |
| 3     | TSO M&E systems era   | 1970s to 1990s           | Despite TSO SPMM initiatives, performance information remained limited in management and budgeting systems. The sector's adoption and use of the LF in the 1980s advanced the participatory model for setting objectives and analyzing problems. LF evaluation continues to shape interactions between TSOs and donors today. | Shifting from project-based work to long-term programming required new methodologies such as stakeholder analysis and participatory approaches. This change focused on outcomes instead of outputs, processes over products, and qualitative rather than quantitative indicators, driving performance improvements in the new public sector through targets and KPIs under New |   |

|   |                               |                               |   | Managerialism or NPM.  |
|---|-------------------------------|-------------------------------|---|--|
| 4 | TSO SPMM implementations      | Early 1990s to the late 1990s | During this period, focusing on TSO performance led public and third-sector organizations to use BSC and RBM-based SPMM methodologies for budgeting, management, and reporting. Despite these efforts, performance data remained scarce. The adoption of the LF in the 1980s promoted a participatory model for setting objectives and analyzing problems, and LF evaluation continues to influence interactions between TSOs and donors today. | Implementing SPMM systems in TSOs has increased the focus on accountability, impact, and effectiveness. Literature has adapted these systems to the unique missions and operations of third sector organizations.  |
| 5 | Tripartite collaboration era: | From mid-1990 onwards         | TSOs face challenges from global competition for donor funds, technological advances, and increased demands for transparency. The design and execution of accountability, KPIs, and performance reviews in a TSO setting, along with the evolving role of SPMM in the sector, were evaluated.   | The third sector gained prominence as global governments formed cross-sector partnerships, transforming TSOs from alternative service providers to active policy developers. The 2008 financial crisis further boosted the third sector's role in public-private partnerships (PPP) due to increased outsourcing of public services. |
| 6 | TSO SPMM empirical studies    | Early 2000 onwards            | TSOs adopted BSC and RBM-based SPMM frameworks after their success in the private sector. However, TSOs faced challenges due to difficulties in articulating their strategies. Existing SPMM frameworks did not fully meet their needs. Literature reviewed SPMM systems in TSOs to identify requirements for effective performance monitoring and enhancement.   | PSOs and TSOs have unique characteristics that customised private sector frameworks do not fully address, especially in evaluation. Since 2000, studies have focused on evaluating TSO SPMM frameworks and systems to determine if they meet TSOs' needs and suggest best-fit evaluation systems considering sectoral differences.   |

Source: Muravu (2025)

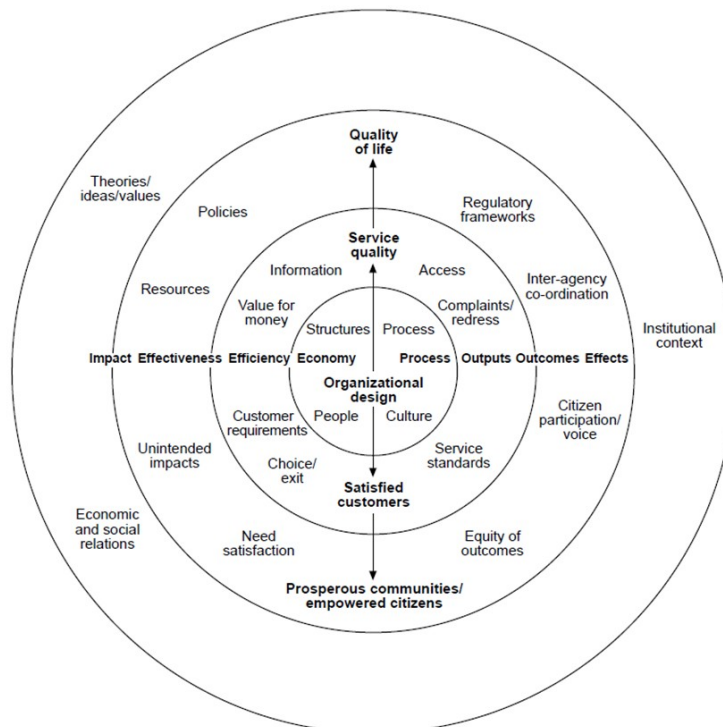


**Figure 14:** The Quality and Efficiency Cycle (Source: Parrado & Loeffler, 2013)

*Model of public service quality*

Sanderson (1996) following evaluation, learning and the effectiveness of public services and proposes a quality of public service model which they describe as “a needs-driven model of policy and service development” (Figure 10). The model distinguishes four levels for the analysis and evaluation of public service quality and elaborating three-level frameworks proposed by various commentators such as Politt and Bouckaert (1995)’s three-level quality (“micro-quality”, “meso-quality” and “macro-quality”) and Bovaird (1994)’s three “domains” of quality assessment (organizational, service system and community “domains”, where quality results in “well-organized communities”. The model operates at four levels:

a) Organizational level: The model examines how organizational strategies, structures, processes, human resource management systems, and broader cultural attributes contribute to the development and delivery of effective public services.



**Figure 15:** A model of public service quality (Source: Sanderson, 1996)

b) Service level: The model examines if services meet user needs and adhere to specified standards. While the first two levels cover the quality perspective of the Citizen’s Charter, a deeper analysis must extend beyond this.

- c) Policy level: The model examines how policies, resource allocations, and regulatory frameworks enable the effective and equitable meeting of needs, facilitate citizen participation, and achieve necessary inter-agency coordination, and finally.
- d) Institutional level: The model critically examines how socially just welfare outcomes can be achieved within the existing economic, social, and political structures.

*DFID’s “Results Chain” Framework*

The UK’s Department For International Development (DFOD)’s Results Chain is a model that reflects how funds are converted into outcomes and impacts. It is a tool that DFID uses to monitor and evaluate the progress of its projects. The phases of a donor’s activities are defined as:

*Inputs:* Inputs cover the financial, human and material resources used for development interventions.

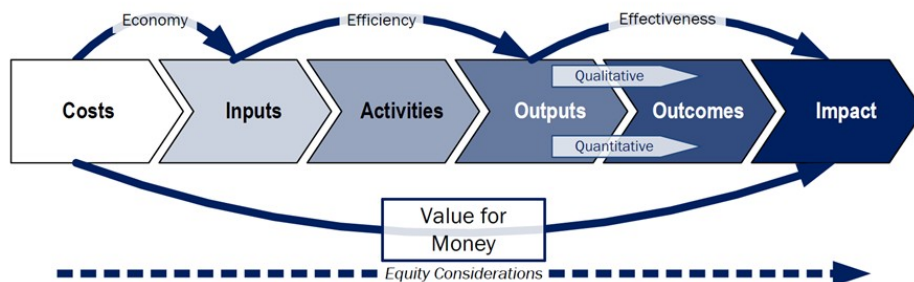
*Processes:* The activities done to deliver outputs. These processes must be defined to set intermediate milestones for measuring progress in implementing the projects.

*Outputs:* The tangible and intangible products, capital assets and services from project activities.

*Outcomes:* The likely or realised short-term/medium-term effects of the outputs of any intervention. Outcomes are used to identify (a) what will change, (b) who will benefit and (c) how it will contribute to poverty reduction and/or the MDGs. It may be useful to specify intermediate outcomes, which lie between outputs and full, desired outcomes.

*Impacts:* Longer-term effects produced by a project directly or indirectly contributes to. Impact refers to higher level identified goals / achievements that the intervention will contribute to.

To measure the performance of an activity vis-a-vis t The Results Chain is operationalised through the DFID’s Logical Framework Approach. Figure 11 below shows the DFID’s “Results Chain”.



**Figure 16:** DFID’s “Results Chain” (Source: ASI, 2012)

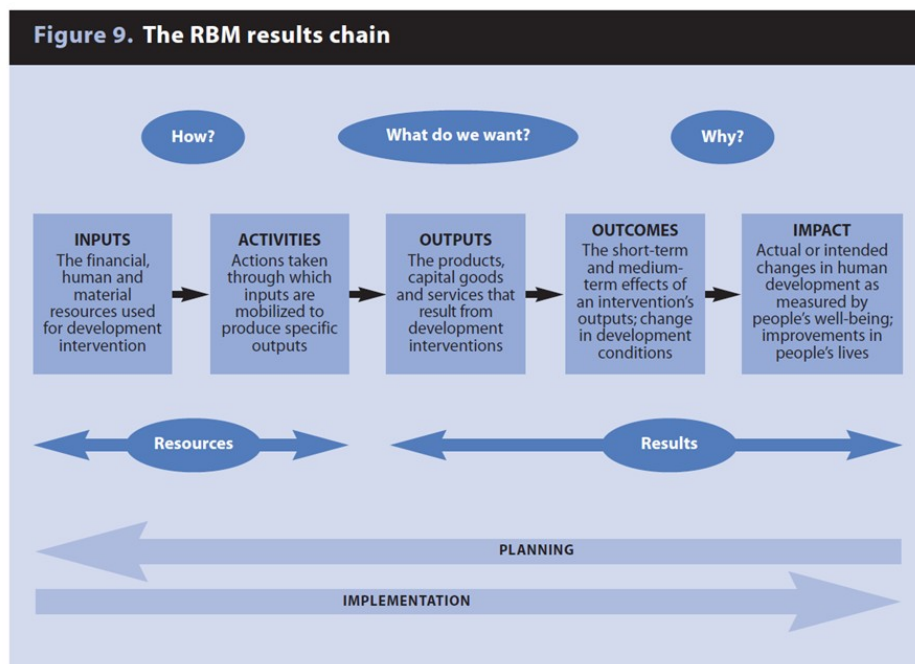
*UNDP’s “RBM Results Chain”*

A ‘result’ can be defined as a “describable or measurable development change resulting from a cause-and-effect relationship” (UNDP, 2009). Using the traditional RBM approach, results are connected through the RBM results chain, which essentially informs **what** stakeholders set out to achieve, **why** they want to achieve that and **how** they will do so. Figure 12 below reflects the vision and longer term goals (impacts), the immediate positive results and some preconditions and prerequisites (outcomes, outputs, inputs) for development interventions.

*Lawson’s Public Sector Performance Measurement Model*

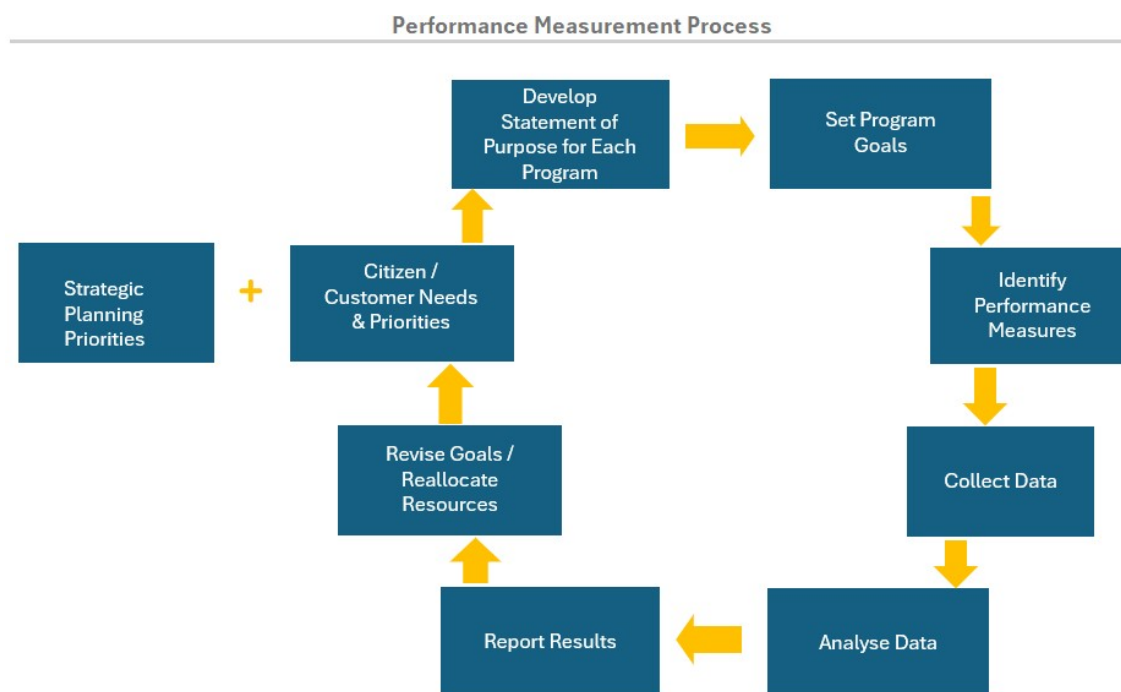
Public sector SPMM can help communities determine **where** they are, **where** they want to go and **how** they get there. Figure 13 below shows the key stages in the performance measurement process. The entity such as a community first establishes its mission and then develops a strategic plan covering several years e.g. a decade which will guide the community in fulfilling that mission. The local authority (LA) then sets goals that will enable it to realize the strategic plan over years.

The LA will develop broad outcome measures, and incorporated during the strategic plan implementation phases, so that it can monitor the progress toward meeting the set goals. Every year the LA develops annual goals and targets (with appropriate performance measures) that link to the long-term goals and outcome measures identified for the strategic plan. The local managers and department heads will also identify several measures that link to the goals set by the LA thus the goals and objectives are cascaded to different levels such as departments and units within the LA. If every team (departments/units) meets their set objectives the LA will successfully implement its strategic plan and contribute to the overall mission of the community. In successful performance measurement and management programs, the vast majority of goals and objectives are quantifiable.



**Figure 17:** UNDP’s “RBM Results Chain” (Source: UNDP, 2009)

As goals and objectives "pyramid up" the organization, the measures move from discrete, integer-scale data to qualitative and categorical-scale data.



**Figure 18:** Performance management process (Source: Lawson, 2006; Muravu, 2020)

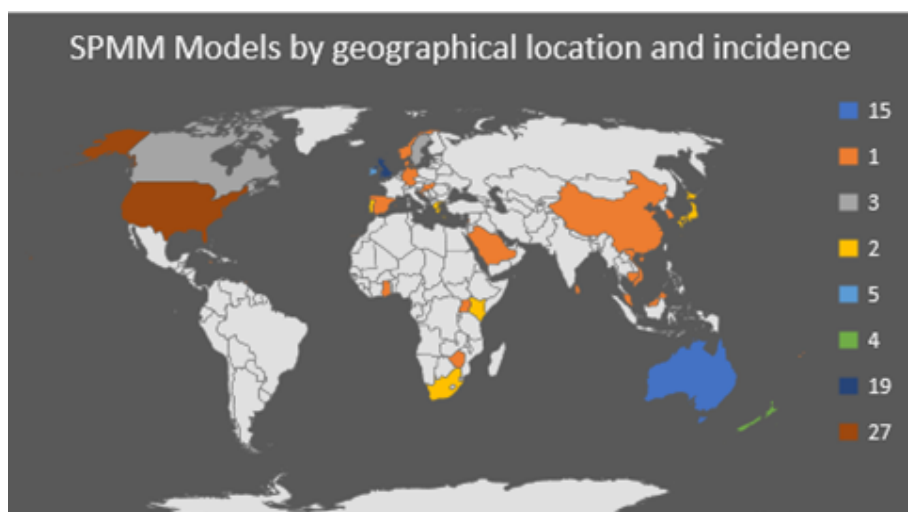
#### 4.2.2 Review of public sector models implemented globally

A total of 115 public sector SPMM models from the literature were reviewed to evaluate the development of performance indicators and their contribution to public sector organisational SPMM. The models were

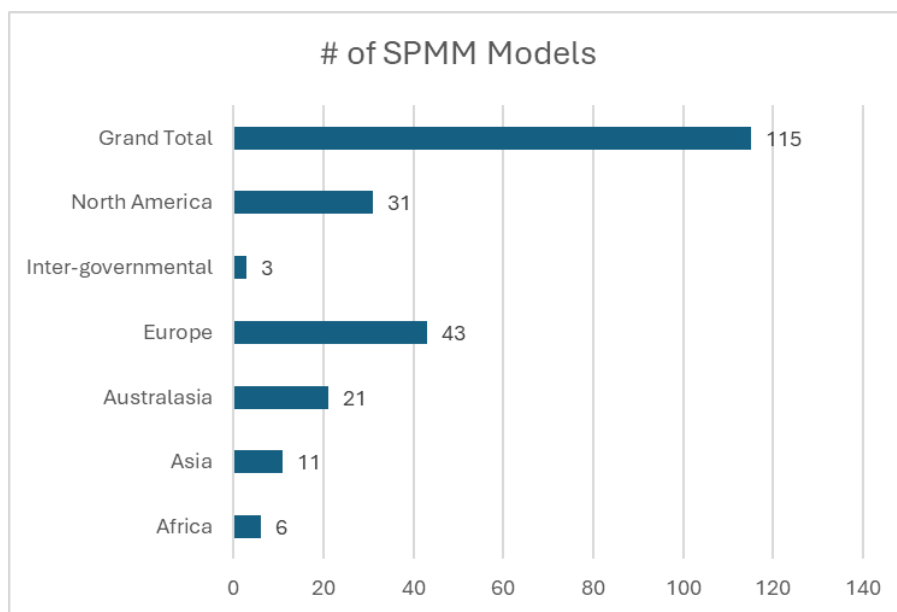
from a total of 112 countries from across five continents and 3 inter-governmental organisations as shown in Figures 14 and 15 below.

The bulk of the models, unsurprisingly, come from Australia, the UK, and the USA (combined 53%), three countries which have a longer record of consistently implementing public sector performance measurement since the advent of NPM. They covered all tiers of government and sectors mainly federal/central government services, local government services, healthcare, and education service delivery sectors.

Several models were premised on BSC-type (Kaplan & Norton, 1992; PEA, 1999) and Results-Based Management (RBM) methodology (Pazvakavambwa & Steyn, 2014). An interesting lesson is that both privatisation and public monopoly of public services in developing countries seemed to successfully meet citizen needs (Gao, 2015; Brewster, 2005; Araral, 2008) which was a key finding of the study.



**Figure 19:** SPMM models by geographical location and incidence (Source: Muravu, 2020)



**Figure 20:** Number of SPMM models by continent/organisation (Source: Muravu,(2020)

Table 5 below presents summary of reviewed public sector SPPM frameworks by sector and continent. For a detailed list of the models by country and sources we refer you to Muravu (2020).

**Table 15:** Summary of public sector SPMM models by sector and region/organisation (Source: Muravu, 2020)

| Sector                              | Africa   | Asia      | Australasia | Europe    | IGOs*    | North America | Grand Total |
|-------------------------------------|----------|-----------|-------------|-----------|----------|---------------|-------------|
| Education                           |          |           |             | 1         | 4        | 1             | 6           |
| Healthcare                          |          |           |             | 4         | 6        | 1             | 16          |
| Local government services           | 2        | 2         |             | 3         |          |               | 29          |
| Supply Chain                        |          |           |             |           |          | 1             | 1           |
| Federal/Central government services | 3        | 5         |             | 8         | 13       | 7             | 36          |
| State/Provincial services           |          | 2         |             | 1         | 2        |               | 9           |
| Agriculture                         | 1        |           |             |           |          |               | 1           |
| State enterprises                   |          |           |             | 1         |          |               | 1           |
| Other social services               |          |           |             | 1         | 5        | 1             | 9           |
| Public utilities & transport        |          | 2         |             | 2         | 1        |               | 7           |
| <b>Grand Total</b>                  | <b>6</b> | <b>11</b> | <b>21</b>   | <b>43</b> | <b>3</b> | <b>31</b>     | <b>115</b>  |

\*IGOs are inter-governmental organisations

#### 4.2.3 Derivation, application, and use of key performance indicators

The following section is a discussion of the key findings of the systematic review on the SPMM models which generally crystalized around the identified central themes of derivation, application and use of key performance indicators which were core features of all SPMM models that were reviewed. We hope that we can draw some insights on key aspects of public sector SPMM derived from actual implementation and which we believe can enhance future public-sector implementation of performance measures.

*Derivation of KPIs in the public sector:* The derivation of KPIs for various public sector SPMM models resulted in the adoption of formal strategic business planning, a practice previously associated only with the private sector. The development of ‘balanced’ core and quality of service KPIs facilitated governments’ resource prioritization and allocation, results-based managing, decision making, and reporting linked to government as part of the strategic planning process and through client oriented public service delivery.

The incorporation and use of KPIs and metrics in some public-sector performance models derived from or resulted in enabling statutory promulgations. This was a major divergence from the private sector which is driven by financial motivation. Some KPIs were automatically incorporated from the widespread adoption and adaptation of some SPMM models from early adopter Public Sectors implying that KPIs were a key component of adaptation to reflect lessons learned or simply to suit the new requirements. The need for limiting the number of KPIs reverberated in almost all the models. Prioritisation of KPIs recognized their relative importance based on their impact on organisational effectiveness and facilitated restriction of KPIs and ensures only those with greatest organisational impact and relevance was incorporated in the SPMM system. The emergence of a new generation of KPIs represents a new trend where organisations are now developing more robust KPIs premised on numerous multi-dimensional variables which additionally promote long-term organisational sustainability and facilitate continuous risk mitigation. These KPIs incorporate past, current and projected trends to facilitate proactive strategic improvement. Generic SPMM literature has for long discussed the allure of predictive SPMM capability, could this signify that this overdue phase of SPMM development is now truly underway?

*Application of KPIs in the public sector:* In the digitisation age, some world class public sectors have transitioned to providing the public with online access to performance information and this was evident in several SPMM models studied. For example, the City of Seoul makes exemplary use of social media for public information sharing and engagement with city dwellers. This assists in providing timely reporting to the public who now demand real-time information but also acts as an improvement tool for public sector accomplishments and helps identify service areas that require

continuous improvement during the year as opposed to annual and retrospective reports. Various KPI-based SPMM tools have been designed and used for service delivery improvement and to drive strategic decision making. They must be robust enough to facilitate performance tracking required for the numerous public-sector complex and disparate programmes and activities that impact citizens day-to-day lives. Some agencies use

dashboards, graphs, KPIs, status updates, trends and comparisons and integrate them resulting in exemplary reporting. As seen, most models require preparation of performance reports for regular reporting of various types of indicators to the public.

*Utilization of KPIs in the public sector:* It is one thing to have the most robust of SPMM models, the key issue is the ultimate use to which the resulted performance will be put. This study confirmed that performance information can be used either internally, for performance evaluation, learning and improvement (intra-organisational), or externally, for promoting and communicating organisational reputation and legitimacy in a competitive environment (extra-organisational). The use of KPIs in the public sector is well-established, well defended and supported in literature implying that there should be some organisational benefits accruing to their use. But, based on evidence, have the objectives of KPIs and target setting in the public sector been met and what lessons can be drawn for the future? Muravu (2021) provides a thorough investigation on derivation, application and utilisation of public sector performance measures which validated their indispensable role.

#### *4.3 Commonalities and differences between public and private sector and implications for public sector performance measurement practices*

As discussed, the implementation of hitherto private sector practices in public management under the NPM banner (Ridwan et al., 2013; Hood, 1991; Fryer & Antony, 2009; Christensen & Yoshimi, 2003; Northcott & Taulapapa, 2012; Ross, 2011) led to massive changes in the way in which PSOs were managed. The literature highlights the nexus between public sector performance measures and NPM through the so-called seven fundamental NPM doctrines (Christensen & Yoshimi, 2003; Hood, 1995). Their relevance is that doctrine 6 recommends “explicit measurable standards and measures of performance” while the others maintain a strong close affiliation with SPMM and inter-dependencies within and among themselves. Consequently, the adoption of performance measures in the public sector was not random but logically and systematically derived from NPM principles making the relationship not an assumed but a direct one. Thus, performance measures are a microcosm of SPMM (the macrocosm) while the latter is a *sin qua nom* for NPM. This section comparatively assesses the private and public sectors and evaluates how the similarities and differences found in the literature drive the attendant management practices and specifically how the latter relate to the distinctive nature of the public sector’s measures of performance

##### *4.3.1 Underlying characteristics of public and private sectors and implications on public sector measures of performance*

The key similarities and differences between private and public sectors are often well articulated in the literature from a public administration perspective but rarely thoroughly interrogated (Muravu 2020, 2021). The systematic review closed this gap by establishing the implications of the divergences from an SPMM perspective especially regarding KPIs, mindful that, the inherent characteristics of the public services make it very hard to implement KPIs. The literature converges on several issues.

The inquiry entry point is that there are lots of commonalities between the private and public sectors in terms of corporate governance which include, but are not limited to: accountability; transparency; integrity; role modelling by organisational leadership; focus on performance and conformance; and recognition of shareholder/stakeholder rights (e.g. Edwards & Clough, 2005; University of San Francisco, 2018., Cauter, Snoeck & Crompvoets, 2014; Victoria University, 2018.; Keltgen, 2014). But there are also glaring differences. The distinctive nature of the two sectors implies that even though some principles are unequivocally relevant to both sectors, they will be embodied within different contexts hence the need to understand them in the public-sector context (Edwards & Clough, 2005).

##### *4.3.2 Distinctive characteristics of the public sector and implications on benchmarking private sector practices*

In drawing relevant lessons on transplanting SPMM practices from the private to the public sector, there is need to be wary of the distinctive nature of the public sector and its nuances from the literature and its implications on the implementation of KPIs in the sector which are comprehensively and expertly outlined in Muravu (2023, 2020). Our considered view is that the need for adoption and adaptation of contemporary SPMM systems, raised in the literature was merely a confirmation of Kaplan & Norton’s (1993) earlier warning that a “one-size-fits-all” approach to BSC implementation was suicidal since different organisations needed fit-for-purpose solutions. We have already seen two key adaptations to public sector SPMM systems that were necessitated by clear distinction between the private and the public sector and adoption and adaptation is the core subject of this study. Since the standard BSC was originally developed for the private sector, its application to the public sector has provided insights into how other SPMM concepts can similarly be transplanted. This transformation can be problematic and can only be successful provided the required adjustments (“adopt and adapt”) are made to the systems to fit its new use in the public-sector’s peculiar context and circumstances.



#### 4.4 Benchmarking successful private sector SPMM approaches to the public sector

The fourth and final topic reviews the literature on benchmarking successful private sector performance measurement approaches to the public sector and concludes with recommendations for future transfer of such identified approaches based on a synthesis of what has worked before and what is likely to work in future.

##### 4.4.1 The concept of benchmarking

To commence with an ephemeral illumination, benchmarking was created and became highly popular in the private sector of the 1980s (Broekcling, 2010; Cowper & Samuels, 1997; Kouzmin et al., 1999) and was later widely adopted in the public sector where it became a major SPMM concept. Best-practice benchmarking has been defined as a continuous, systematic process or an efficiency tool in which an organisation pursues improved performance through measurement of its own products, services, processes, and practices against a standard which maybe absolute or relative to other (superior) organisations. For a detailed discussion on the concept of benchmarking, its definition, origins and evolution, types of benchmarking, benefits and downside of benchmarking and benchmarking application in the public sector please refer to Muravu (2023)

##### 4.4.2 Key empirical insights on benchmarking private sector practices to the public sector

The above definition focuses on achieving better performance by learning from best practices regardless of whether they exist in the organisation, sector or outside (Parrado & Loeffler, 2013). This must have been what the UK government intended when it pioneered benchmarking public-sector performance against the private sector in the 1990s. The initial findings indicated that this approach may be highly effective both at assessing the overall performance of organisations engaged in a wide range of activities and at providing a means for the identification and adoption of best practice from both within the sector and beyond (Cowper & Samuels, 1997).

The insights from prior implementation experience reflected broad similarities in the approaches applied to both sectors albeit with some sector-specific issues related to the applicability of the tools to the public sector coupled with complex technical implementation issues. Overall, these issues emphasize that the public sector's operational environment and primary accountability is uniquely different to that of the private sector. Ostroff (2006) asserted that high performing public sector agencies resemble well-run companies in several aspects like having *'worthy goals; well designed, rational processes; strict accountability; and effective leaders.'* However, underlying divergences in their purposes, cultures, and operational contexts imply that they experience inherently diverse challenges. In all, the literature was clear that public sector benchmarking is analogous to that in the private sector, but with somehow dissimilar motivation and obstacles.

## 5. Discussion

### 5.1 Evolution of Strategic Performance Measurement and Management

This section discusses the findings of the study out of which conclusions and recommendations are made.

#### 5.1.1 Evolution of SPMM in the Private Sector

The systematic review revealed some key insights on the “contemporary descendants” and “traditional antecedents” of private sector SPMM reflecting an “on-again” and “off-again” evolutionary trend. According to Ratnayake (2009):

“The history of PM&M thought proceeds in jumps and advances by revolutions. This approach, ... seems extremely useful in tackling the evolution of the PM&M concepts” (p.160).

SPMM evolved in response to changing circumstances and requirements of the operational environment. SPMM systems and measures designed were sufficient for the intended purpose of the time. But new challenges which required new solutions emerged and thus new models and measures were developed. In the process, more problems were created, and further improvements required, and the cycle continued. But the new solutions resulted in negative consequences which reinforced Ridgeway's (1956) ‘penicillin’ analogy.

Johnson and Kaplan after their 1987 *Relevance Lost* classic, highlighted that the eventual purpose of historical writing is not to prescribe solutions to current problems but provide insights on available options and that understanding the “roots” helps us appreciate that extant systems were adequate for the purposes for which they were designed at the time they were designed. We believe that this appreciation is apparently missing in the criticisms of legacy SPMM systems by most authors out of their wisdom or lack of it. Moreover, SPMM

challenges have persisted for as long as the field itself has existed. Reviewing the field’s evolution assists us comprehend research trends, attendant challenges and how they developed over time to facilitate contextual positioning of future research and practice which we hope this study will help achieve. Figure 16 below illustrates the chronology, evolution and revolution of SPMM at a glance.

Overall, this study aligns to a phenomenon in organisational behavior which we which claimed that organisations grow through “evolution” and “revolution” (Greiner 1972, 1998). The relevance to this study is both that a “challenge” dominates each “evolutionary period” and the nature of management’s response influences organisational capability to step up to the next evolutionary stage. We foresee phases of Greiner’s Organisational Life Cycle (Greiner, 1972, 1998) being replicated in the identified SPMM developmental phases. Greiner’s framework, consistent with Johnson and Kaplan (1987a), articulates the very situational nature of different management styles, organisational structures and coordination mechanisms. In applying the same logic to this study, we hope that this evolutionary account constitutes the interrogation of SPMM “roots” which will enable the current generation of practitioners and theorists to gain the historical insights to evaluate the relevance of certain existing SPMM systems, process, and practices under existing conditions.

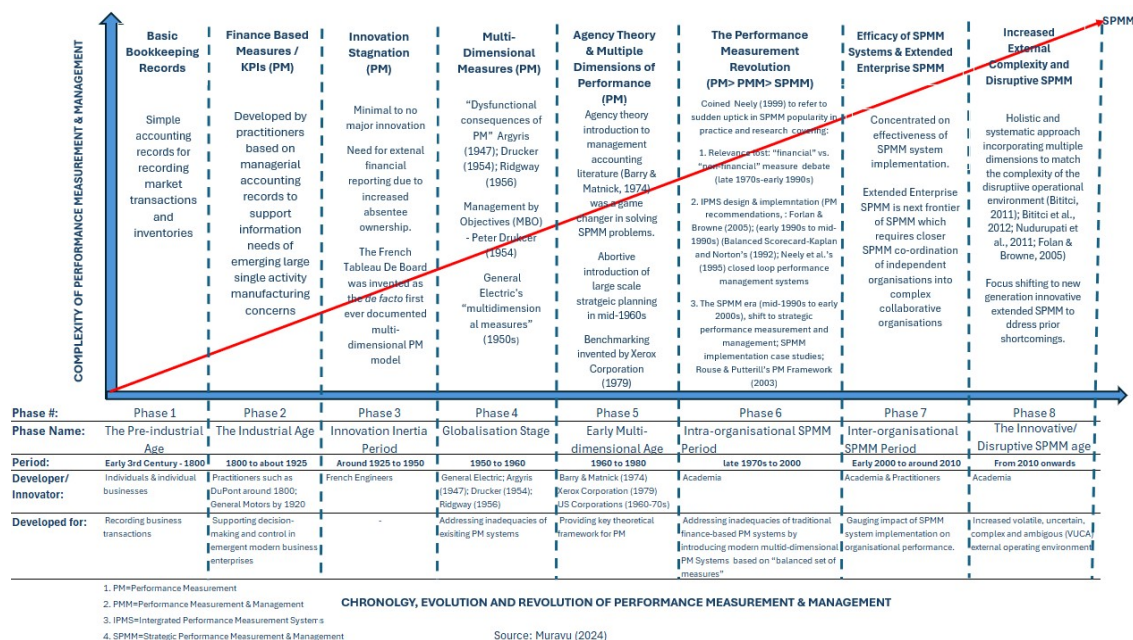


Figure 21: SPMM evolution in the private sector

### 5.1.2 Evolution of SPMM int the Public Sector

The systematic review established that while NPM revolutionised public administration, in the 1980s forward, it apparently was not new all. Public sector SPMM evolution fundamentally followed an independent trajectory swayed by numerous developmental trends in global public sectors since around 1900. Some literature suggests the evolution occurred through generations of consecutive public-sector reforms starting with the 1980s (first generation) followed by the business managerialism of the late 1980s and 1990s (second generation) and finally contemporary public management (third generation) but these accounts glaringly omit earlier public sector SPMM initiatives.

Reforms worldwide reflect common policies and a shift in how governments integrate SPMM systems in policy development and implementation. The 2008-9 credit crunch pushed NPM from voluntary measures to systemic austerity, using "more with less" as a fiscal consolidation tool. This increased the burden on PSOs to maintain efficiency while managers faced new challenges. In the 21st century, local government SPMM has shifted from a social responsibility perspective to a global competitiveness context, aiming to create livable communities that attract global talent and businesses.

The evolution of public sector SPMM into a significant body of empirical literature may have emerged out of academic desire to test appropriateness of modern SPMM systems in the public-sector. These systems, practices and techniques that are ordinarily credited to the private sector allowed the public sector to “piggy-

frog” and significantly narrow the gap with private sector SPMM practice and that may have made some scholars to conclude that SPMM started in the private sector, a notion not supported by this study. Figure 17 below is an “at-a-glance” illustration of how public sector SPMM has evolved over the ages.

### 5.1.3 Evolution of SPMM in the Third Sector

The literature was conclusive on the evident need for effective SPMM in the third sector and that it was not abating. The third sector has accrued the new role of delivering services to central government and increased working with the private sector under ‘tripartite’ working regimes which exerts pressure on TSOs to effectively demonstrate the value of their societal developmental contribution. Ironically, the 2008 global financial crisis and resultant increased government austerity cuts led to forced increased demand for private sector outsourcing and attendant downstream engagement and collaboration with the third sector through sub-contracting delivery of public services. Thus, the need for better SPMM, to achieve better services with fewer resources, like in other sectors, is not subsiding but on the contrary, it is increasing. The emergent collaborative working across the three sectors provides an opportunity for holistic extended or collaborative enterprise SPMM across these sectors which has not been foreseen.

Some literature stream reviewed the existing strengths of the third sector and reckon that some TSOs have implemented best practice SPMM which can be widely adopted by third and public sectors. It advocates for the public sector to harness the strengths of SPMM from its close cousin - the third sector - as opposed to the distant stranger, the private sector, with the hope that this should contribute to more understanding and a better mutually beneficial relationship between these twin sectors and encourage the potential for mutual learning. Figure 18 below diagrammatically summarises evolution of SPMM in the third sector.

### 5.1.4 Overall SPMM Evolution

We conclude this topic with several important insights:

*Chronology, evolution and revolution of SPMM.* This paper articulated the “on-again” and “off-again” evolutionary trend of SPMM and aligns with Johnson and Kaplan’s (1987a) “environmental influences” in the most chronological, systematic and comprehensive manner than any other SPMM study to date.

*SPMM myths* It also dispensed with certain inaccurate notions about the history and evolution of SPMM which have been perpetuated in literature such as the inaccurate notion that public-sector performance measurement was “borrowed” from the private sector which is at best a half-truth.

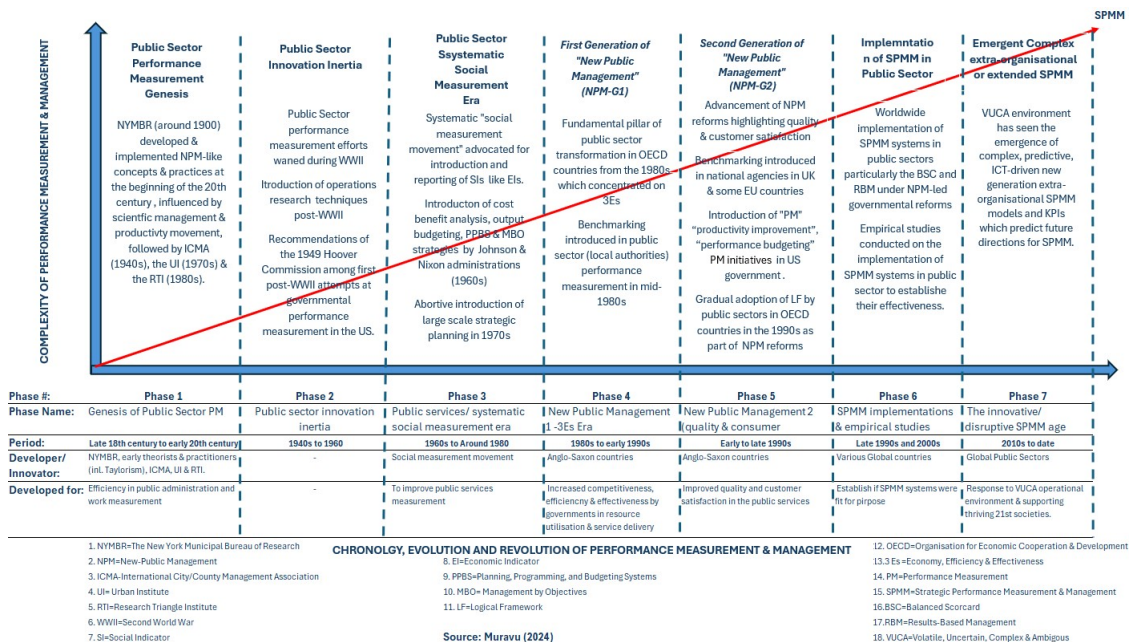
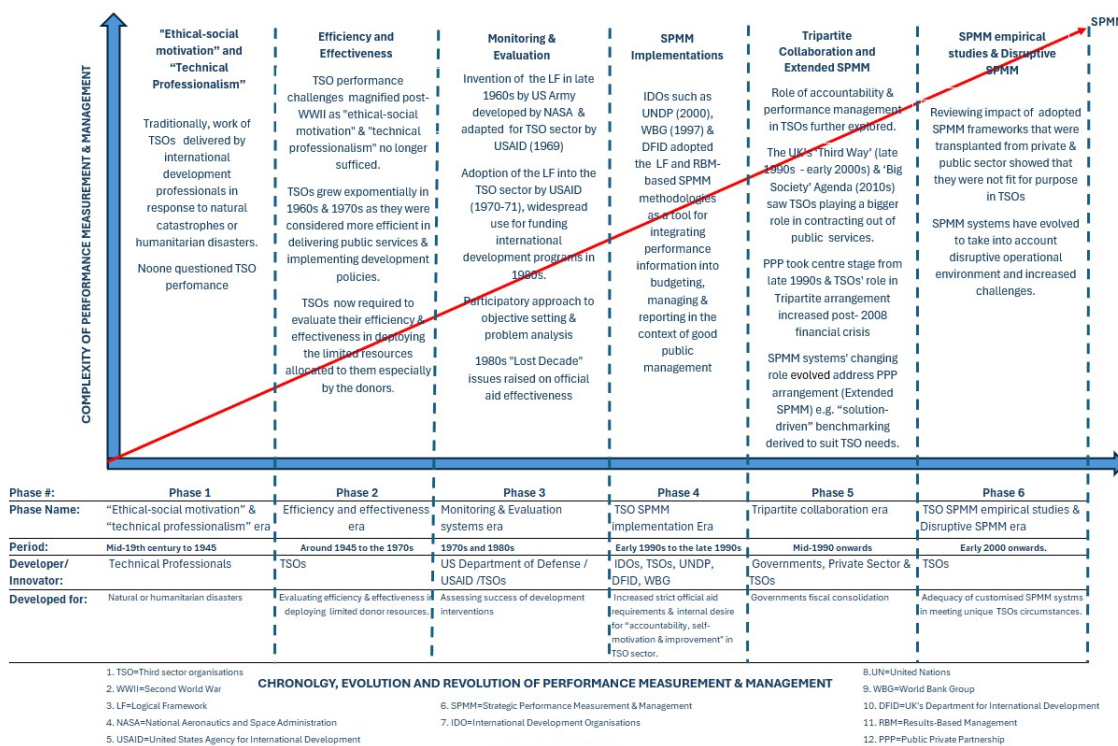


Figure 22: SPMM evolution in the public sector



**Figure 23: SPMM evolution in the third sector**

*Parallel evolution and revolution.* There was a “parallel evolution and revolution” of SPMM in the three sectors in which there were some mirrored trends and developmental trajectories, but also with contrast due to the unique sectoral environments. While SPMM was quite distinctive between the sectors at 1900 this line gets blurred with time leading to convergence in the 1990s. Table 6 shows comparison of SPMM evolutionary trends in the private, public, and third sectors highlighting the commonalities and differences in terms of content, methods, and dynamics of the evolution.

*Validation of SPMM and complex challenges due to uncertainly and emerging contextual trends.* The study validated the significance of SPMM as a “tool for performance improvement, organisational innovation, and accountability” in private, public and third sectors. Concurrently the literature identified and even predicted more complex challenges ahead in all sectors due to emerging contextual trends and increased uncertainty. Will today’s organisational SPMM systems be able to respond in the uncertain and turbulent knowledge-oriented era and be able to face the current randomness and uncertainty such as disruptive technologies (VUCA world)?

*Diffusion of SPMM to other disciplines:* The diffusion of SPMM into other fields and disciplines resulted in increased uptake of traditional strategic management models and techniques thus cementing transformation of traditional SPMM and lending them to fulfill the adage that “management models are adopted in practice only when institutional circumstances conspire with them” (Cardoso, 2014, p.8) and consistent with Kuhnian philosophy of science proposition “that progress only happens through successive and abrupt shifts of paradigm” (Ratnayake, 2009, p152). The prevalence of Taylorism’s influence in modern SPMM practices supports the literature claims that scientific management was the “paradigm shift” underpinning the evolution of modern performance measurement research (Uddin & Hussain, 2015; Ratnayake, 2009).

The overall lesson is that SPMM challenges are as old and enduring as the SPMM field and reviewing its evolution helped us understand its progress, its challenges and how they impacted its development to position future research and practice into context. We gained a remarkably rich and holistic theoretical understanding of how SPMM evolution is deemed to have occurred.

### 5.1.5 What is the future of SPMM?

Does the "invincibility" of the Balanced Scorecard cement the future of the SPMM domain? Despite criticisms, the trend in the application of the BSC is relentless and no credible SPMM systems have seriously rivalled it. The systematic review revealed that balanced scorecards, are increasingly being universally adopted by diverse high-performance organisations globally complimented by deployment of specialised ICTs to harness maximum benefits implying that they are acceptable and profitable (Marr, 2018). The Balanced Scorecard has been touted as "one of the most significant management ideas of the past 75 years" by Forbes (as cited in Marr, 2018) and a remarkable SPMM concept that became deeply embedded in all kinds of organisations around the world – within its first fifteen years of existence – and this is testament of its "invincibility". The future of SPMM in all sectors may not be in doubt but, as we shall see later, the practical realities are so different especially between the private sector on the one side and the public and third sectors on the other implying that the later face different challenges which must be considered if maximum ultimate benefits are to be derived from the implementation of SPMM systems.

### 5.2 Derivation, application, and utilisation of public sector measures of performance

There is clear universal convergence on the need for SPMM from the public sector perspective. SPMM models have been implemented and evolved progressively, responding to the changing public-sector context and through adoption of new innovations and incorporating lessons learned from prior KPIs deployments. This may explain why no cases of calamitous failure were identified in the studied literature, as initial challenges were later addressed satisfactorily. Also, generic debates emerged, in which various theoretical and factual arguments have been raised for or against the appropriateness of utilizing SPMM systems and specifically KPIs in assessing performance. Lack of consensus on usefulness of performance information in the public sector, remains an encumbrance in some areas but it's best left to the reader to judge for themselves. Most criticisms appear superficial hence really do not detract against the value of performance measures and SPMM systems. This SPMM journey has revealed that despite the unanticipated adverse consequences of target setting, robust and comprehensive performance measures will contribute to effectiveness of SPMM systems and add value to public sector management.

**Table 16:** Comparison of SPMM evolution in the private, public and third sectors

|  | SPMM Evolutionary Developments  | Private Sector | Public Sector | Third sector |
|--|---|----------------|---------------|--------------|
| S<br>I<br>M<br>I<br>L<br>A<br>R<br>I<br>T<br>I<br>E<br>S | a) Early SPMM theories were created by disciplinary specialists and literary publications followed later.   | X              | X             | X            |
|  | b) SPMM progressed in response to significant environment and contextual changes such as the industrial revolution (mid-18 <sup>th</sup> century to early 19 <sup>th</sup> century), productivity movements such as Taylorism (late 19 <sup>th</sup> century to early 20 <sup>th</sup> century), Fordism (early to mid-20 <sup>th</sup> century) and post-Fordism (late 1970s into early 21 <sup>st</sup> century), "dysfunctional consequences of performance measurement movement" / multidimensional measures (1950s-1960s), Management by Objectives (1950s) "social indicators movement" (1960s), operations research and quantitative techniques (post-WWII), agency theory (1970s), large scale strategic planning (mid-1960 through 1970s), Logical Framework (1970s) business managerialism and NPM (1979 onwards), finance-based vs. non-finance-based debate ("performance measurement revolution") (late 1970s through 1980s), multi-dimensional systems / Balanced Scorecard (1990s onwards), digital transformation (late 1990s to today) and specifically the fourth industrial revolution /artificial intelligence/Internet of Things (2008 onwards). | X              | X             | X            |
|  | c) The evolution followed themes that enabled classification by period, context, and challenge.   | X              | X             | X            |
|  | d) The following were key organisations in the institutionalisation of SPMM:<br>i) Du Pont and General Motors: invented most finance based SPMM systems in early 19 <sup>th</sup> century.<br>ii) General Electric: introduced multi-dimensional measures in the 1950s.<br>iii) Xerox Corporation: invented benchmarking in 1979.<br>iv) The New York Bureau of Municipal Research: responsible for early 20 <sup>th</sup> century governmental performance measurement.  | X              | X             | X            |

|  |  |                              |                      |   |
|--|--|------------------------------|----------------------|---|
|  | <ul style="list-style-type: none"> <li>v) International City Management Association (ICMA): complemented the Bureau's work since 1940s</li> <li>vi) Urban Institute (1970s) and the Research Triangle Institute (since 1980s) carried forward Bureau's work.</li> <li>vii) US Department of Defense; invented the Logical Framework (1970s) which was adopted for widespread use in the public and third sectors to this day.</li> <li>viii) Major NGOs e.g. UNDP and DFID: advocated for Results-Based Management (RBM) methodologies used by most governments and NGOs today.</li> </ul> |                              |                      |   |
|  | e) SPMM converged in private, public and third sectors through adoption of contemporary multi-dimensional systems (since the 1990s)  | X                            | X                    | X   |
|  |  |                              |                      |   |
| <b>D<br/>I<br/>F<br/>F<br/>E<br/>R<br/>E<br/>N<br/>C<br/>E<br/>S</b> | a) Private sector SPMM dates back to the early 3rd century B.C., public sector SPMM to the early 1900s, and third sector SPMM to the post-WWII era (1960s-1970s).  | 3 <sup>rd</sup> century A.D. | Around 1900          | 1960s to 1970s                                      |
|  | b) The differing objectives between the private sector (profit maximisation) and the public and third sectors (welfare maximisation) have led to the customisation of SPMM systems to suit their specific needs. For example, while the Balanced Scorecard (BSC) was originally designed for private sector entities, it has been adapted over time to meet the requirements of the public and third sectors.  | Profit maximisation          | Welfare maximisation | Welfare maximisation (as a surrogate to government) |
|  | c) The 2008-9 credit crunch led to mandatory cuts in public sectors, shifting NPM from voluntary to forced measures to achieve "better for less".  | -                            | X                    | -   |
|  | d) Conversely, the 2008-2009 credit crisis led to an increase in business for the private and third sectors. As a result, many public sector entities were compelled to outsource more services to these sectors through "tripartite" arrangements.  | X                            | -                    | X   |
|  | e) The legislation of SPMM in the public sector represents a significant difference, contrasting with the private sector's focus on profit maximization, and the third sector, which is typically governed by donor agreements.  | Voluntary                    | Legislated           | Donor covenants                                     |

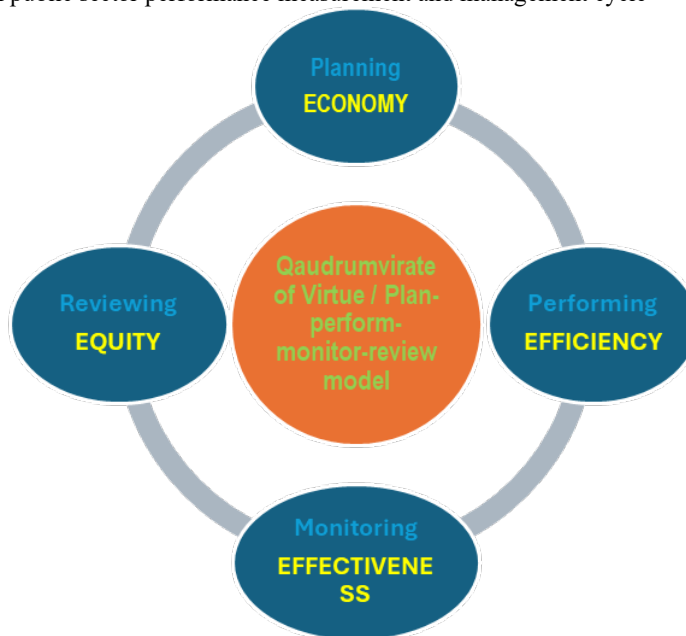
Source: Muravu (2020)

Thus, the overall success rate of the studied SPMM models has been highly satisfactory to the extent that there have even been examples of excellence in implementation of SPMM in some western jurisdictions dating back decades in counties such as New Zealand, Singapore, US, and Australia. The study of past and present public-sector models revealed that KPIs are a constant feature. Their application and use remain high on governments' agenda globally over the last four decades, so potential worldwide consensus over their merits can justifiably be assumed.

### 5.2.1 Public sector performance measurement and management cycle

KPIs have proved that they can boost effectiveness of public policy implementation when properly designed and executed holistically, but they will need to be continuously responsive to emerging internal and external challenges to remain effective. An interesting literature perspective presented developments of SPMM techniques as having metamorphosed from being based on the traditional "triumvirate of virtue" as discussed earlier to 4"Es" or the "quadrumvirate of virtue", as we called it, following the addition of "equity" and we superimposed it on the four-step "plan-perform-monitor-review" process as shown in Figure 19 below. Considering the public sector's struggle to implement KPIs to satisfy the 3"Es" over decades, addressing the additional "E" would be much more complex given the trade-offs required between efficiency and equity. Further, more "Es" are pending to public administration considering that "Ethics" and "Environment" have already been appended to public finance management discipline (see Otrusina & Pastuszko, 2012).

**Figure 24:** Overall public sector performance measurement and management cycle



Source: Muravu (2020)

What is clear is that these techniques are going to have to evolve to meet the new challenges and realities of the day and the public sector SPMM practitioner and academia cannot remain married to past ideas nor the status quo but will need to devise new, more agile, and efficient SPMM tools and techniques which promote smart working through spending less time on bureaucracy and more on high-value activities.

### 5.2.2 Public Sector models

Equally, a number of models were encountered in the literature which attempted to simplify public sector SPMM frameworks incorporating various elements and include the following:

- Quality and efficiency cycle (Kouzman, LoËffler, Klages & Korac-Kakabadse, 1999)
- Model of public service quality (Sanderson, 1996)
- UK Department for International Development (DFID)'s "Results Chain" (ASI, 2012)
- UNDP's more elaborate "RBM Results Chain" (UNDP, 2009), and
- Performance management process (Lawson, 2006)

The models were all premised on the traditional "plan-perform-monitor-review" model as adapted to public sector circumstances. What is clear is that these "needs-driven" SPMM models of policy development and service quality improvement are primarily concerned with ensuring they clearly reflect linking organisational edifices, public policy, resource, and service provision to attain, most effectively and efficiently, the most socially desirable welfare outcomes relative to diagnosed social problems and attendant assessment of social objectives (Sanderson, 1996). These public sector SPMM descriptive models reveal that there is huge potential to extend them to incorporate increased modern-day complexity, something which we will attempt to do later in this section.

The systematic review further revealed that public sector SPMM systems and KPIs are going beyond their traditional remit to contributing to addressing local and global challenges and fostering creation and sustenance of thriving 21<sup>st</sup> century societies. Digitalisation has proved a timely ally which enabled these systems and KPIs to encroach towards crucial daily lifestyle and lifetime decisions such as location destination choice in a world where physical barriers have technically and metaphorically disappeared due to increased globalism. Use of computerised performance dashboards is becoming increasingly fashionable and, complemented by transformational technologies such as robotics and artificial intelligence (AI), which allow manipulation of massive data from large numbers of KPIs typically produced in most public sectors. Real-time availability of KPIs means data analytics will facilitate generation of instant managerial insights and will require upgrading of staff skills-sets and value-sets to match transition from mainly transactional to more strategic, value-adding work.

### 5.2.3 Proposed overall public sector SPMM descriptive model

The public sector models studied above were, unfortunately, either too simplistic to capture all crucial elements / variables or were too complex for meaningful implementation or empirical testing. We, therefore, propose a more “balanced” public sector SPMM descriptive model based on the traditional four-step “plan-perform-monitor-review” process superimposed on the 4Es and other critical SPMM elements and variables as shown in Figure 20 below. When applied within the value for money paradigm, in the appropriate theoretical, regulatory and institutional context, the proposed overall public sector SPMM descriptive model should automatically result in a better quality of life, prosperous communities and empowered citizens – the goal of any public service delivery system.

To conclude this topic, the systematic review revealed that the demand for KPI information in public-sector administrations has rapidly increased from a multiplicity of stakeholders. Equally, the supply of these indicators has increased exponentially with numerous datasets emerging most of which are riddled with conceptual and data quality problems. Policy makers are challenged to extensively interrogate new indicators or rankings to establish their intrinsic meaning. Our hope is that we have managed to demonstrate that SPMM in general and KPIs in particular have had positive impact on governments as they thrust customer service improvement, increased accountability, and efficient and effective resources utilization at the core of the public and political discourse, albeit it comes with the health warning that, we should be wary about what exactly they reveal about public sector performance. Also, generic debates emerged, in which various theoretical and factual arguments have been raised for or against the appropriateness of utilising SPMM systems and specifically, KPIs in assessing performance. The lack of consensus on the usefulness of performance information in the public sector remains an encumbrance in some areas, but it’s best left to the reader to judge. Our strong view is that most of these criticisms appear superficial hence really do not detract against the value of performance measures and SPMM systems as espoused in the systematic review. This section provided insights on how KPIs are applied in the measurement of performance in various public sectors internationally which will be useful in the next couple of sections.

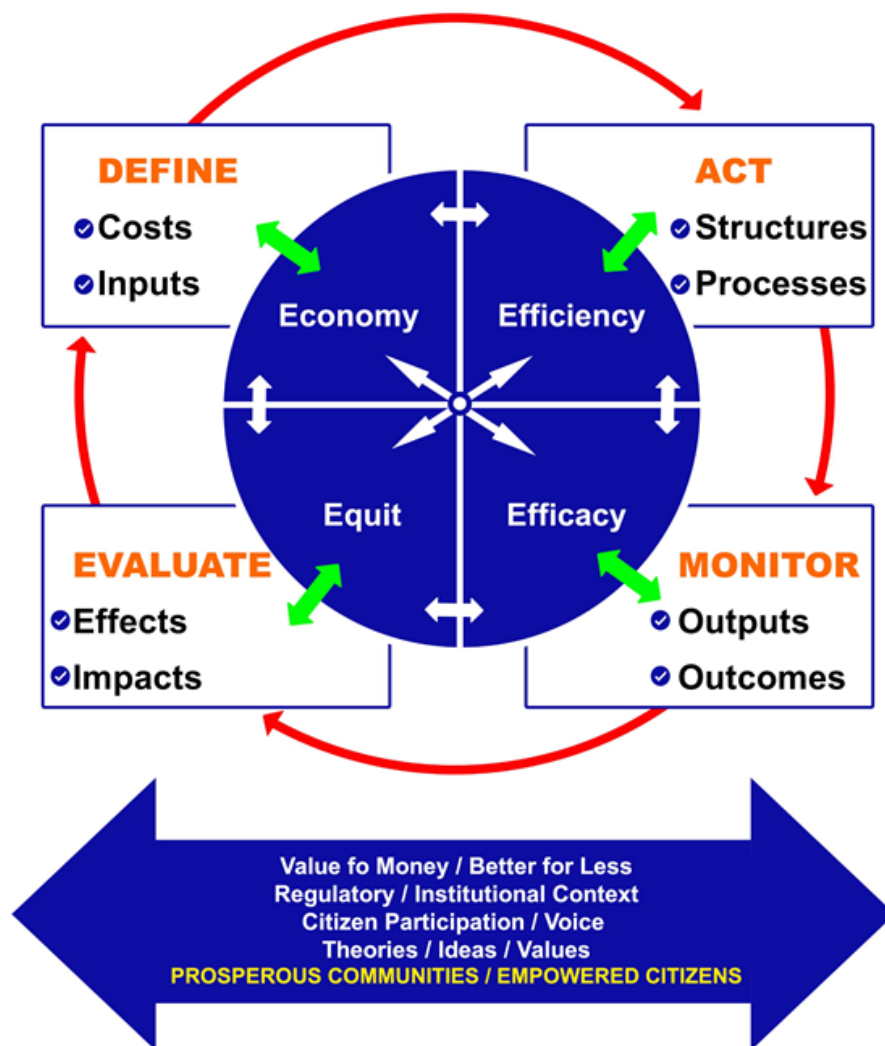
### 5.3 Distinctive characteristics of the public sector

Most studies of public sector SPMM implementation reported challenges around KPIs but none reported colossal failure. Contemporary SPMM theory is positive given prior studies have validated positive outcomes from SPMM implementation and use in the public sector. But there seems to be a sense of trepidation and despondency among scholars because, while some originally encountered challenges have been resolved, there are still some critical identified issues which remain largely unresolved decades on end from both practitioner and academic perspectives.

Overall, the studies confirm that SPMM in diverse and complex public sectors unique operational and environmental contexts:

- Cannot be "one size fits all"
- Is not a destination but a journey in which challenges are continuously encountered and mitigatory management innovations and solutions developed and implemented,
- Is not useful unless it is attention-directing to PSO goals and influences future performance, and
- Should recognize that using KPIs will not automatically solve organizational effectiveness problems.





**Figure 25:** Proposed overall public sector SPMM descriptive model (Source: Muravu, 2025)

The main challenges to public sector SPMM are due to its distinctive nature, trade-offs and unforeseen circumstances as discussed and these are more likely to increase in future due to existence of pervasive negative externalities, increased heterogeneous populations and governments facing mounting severity of environmental and resource challenges. Table 7 below summarises the distinctive characteristics of the public sector by challenge and theme and its implications on KPIs. These issues will further complicate public-sector objective setting and could fundamentally change the conceptualization and application of public service provision planning.

A couple of key insights emanate from this systematic review.

1. The literature essentially argues that the public sector can only successfully adopt private sector-style SPMM to the extent that it mimics the private sector in terms of objectives similarity. But this ignores resource constraints and other principal public sector challenges and is tantamount to relegating them into obscurity.

2. The literature also seems to advocate for partial, selective or even piecemeal approach to implementation of SPMM in the public sector by suggesting that some public services can have their support functions organized to allow meaningful performance measurement and management.

**Table 17: Distinctive characteristics of the public sector and implications on KPIs**

| Challenge/Theme  | Implication for public sector KPIs   | Sources  |
|--|--|--|
| Convergence between the vertical and horizontal due to rise of amoeba or multi-faceted organisational structures | Need for KPIs that are responsive and relevant to new realities and external discontinuities   | Edwards & Clough (2005)<br>Lin & Yee (2011)  |
| Absence of commercial competition  | Ultimate benchmark and KPIs choice could inevitably become a political process and not in the best interests of public sector SPMM   | Ryan (2018), CIMA (2012), Ross (2011), Moriarty & Kennedy (2002)   |
| Serious conceptual challenges to measuring public sector performance   | “Conceptual and political-philosophical issues” must be addressed since they impact the development and use of appropriate KPIs  | Ruzita et al. (2012), Mihaiu, Opreana, & Cristescu, 2010, Van de Walle (2008), Salem (2003), Moriarty & Kennedy (2002)   |
| Perceived pathological difficulty in articulating mission and associated strategies                              | Incorporate environmental objectives and related KPIs and continually calibrate them to address the persistent challenges of increased negative externalities.   | Ross 2011, Gadenne & Sharma (2009), Northcott & Taulapapa (2012), Kaplan & Norton, (2001b), Moriarty & Kennedy (2002)  |
| Lack of profit maximisation objective  | Outline the causal relationship between transposed customer with other perspectives in modified SPMM systems to ensure clarity for KPIs based on the various perspectives  | Singh (2023); Metawie (2005), Boland & Fowler (2000), CIMA (2012), Gadenne & Sharma (2009), Kouzim et al., (1999), Micheli & Kennerley (2005), Metawie (2005) Mihaiu et al. (2010), Ruzita et al. (2012) Brignall & Modell, (2000), Murby & Gould (2005), Northcott & Taulapapa (2012) |
| Lack of conventional “customer” and definition of “customer satisfaction   | Translates to challenges in deriving appropriate KPIs. Transposing customer perspective may assist define the critical causal relationships, but quantifying KPIs such as customer satisfaction and service quality remain obstinately problematic but not intractable.                    | Kaplan & Norton (2001), Ruzita et al. (2012), Brignall & Modell (2000), Murby & Gould (2005), Northcott & Taulapapa (2012), Moriarty & Kennedy (2002), Ryan (2018)   |
| Presence of multiple stakeholders and multiple (strategic) objectives  | Need for KPIs to address and balance various stakeholders’ desired outcomes and conflicting goals may translate to conflicting KPIs complicating public-sector performance evaluation. Delicate numerous trade-offs make derivation of unambiguous set of performance measures impossible. | Bergmann (2023), Chisnell (2021), Brignall & Modell (2000), Murby & Gould (2005), Propper & Wilson (2003), Micheli & Kennerley (2005), Moriarty & Kennedy (2002), Ryan (2018), CIMA (2012), Ross (2011)  |
| The public sector’s agency dilemma   | Has some profound implications such as divergence from standard agency theory predictions which may impact incorporation of and add complexity to public sector KPIs’ incentivization.   | Chisnell (2021), Van Thiel & Leeuw (2002), Propper & Wilson (2003) Dixit, (2002)   |
| Existence of a diverse and complex operational environment   | Complexity poses fundamental difficulties and implies that KPIs must be flexible, and both inward looking and external facing.   | Bergmann, (2023), Ross (2011)  |
| Existence of unique public-sector services   | Such as concern for human life and quality of life, fall in category where KPIs derivation is most difficult if not impossible but some “macro” indicators can   | Mihaiu et al., (2010)  |
| Challenge/Theme  | Implication for public sector KPIs   | Sources  |
|  | be utilized.   |  |
| Perceived lack of performance culture  | There sector should enforce serious consequences for poor performance as KPIs alone are not the panacea to achieving organisational improvement.   | Chisnell (2021), Bergmann (2023), Ross (2011)  |
| Poorer quality management information than private sector  | Public sector managers must employ all available tools to support evidence-based decision making resulting in improved performance including appropriately designed performance measures   | Ross (2011)  |
| Difficulty in quantifying outputs and outcomes/impacts   | Make calculation of effectiveness equally challenging but the sector can measure performance through various ‘macro’ indicators to gauge the effectiveness of its performance and reforms.   | Ross (2011); (Gadenne & Sharma, 2009; Niven (2002), Ryan (2018). Moriarty & Kennedy (2002), Mihaiu et al., (2010)  |
| Shortage of skilled and motivated talent   | Governments need to employ skilled talent imply high-powered incentives are not suitable for public sector motivation, they should design KPIs that reflect higher levels of intrinsic motivation.   | Jacobsen (2021), Ross (2011), Gadenne & Sharma, (2009), Propper & Wilson (2003)  |
| Difficulty in measuring/quantifying outputs and outcomes/impacts   | Make calculation of effectiveness equally challenging but the sector can measure performance through various ‘macro’ indicators to gauge the effectiveness of its performance and reforms.   | Ross (2011), Gadenne & Sharma (2009), Niven (2002), Ryan (2018). Moriarty & Kennedy (2002), Mihaiu et al., (2010)  |
| Revenue generation/resource constraints in the public sector   | Resource scarcity challenge implies tolerance for some unresponsiveness to some consumer demands. This means customer satisfaction and related KPIs cannot be the dominant consideration.  | Bergmann (2023), Micheli & Kennerley (2005), Ross (2011); Kouzim et al. (1999),  |

|   |  |   |
|---|--|---|
| Emergence of knowledge workers  | Since knowledge workers are considered innately more motivated than conventional workers, this should preclude setting targets that are strictly quantitative or that standardise approaches since this dispenses with essential characteristics that underlie specific role effectiveness.        | Ross (2011)   |
| Public sector performance measures, culture and behavior and dysfunctional effects                      | KPIs can never be perfect and invariably lead to some unintended consequences and set indicators must adequately respond to detecting and addressing potential dysfunctional behavior and effects. Being wary of unintended consequences should spur their interrogation for effective mitigation! | Chisnell (2021), Propper & Wilson (2003), Van Thiel and Leeuw (2002); Ross (2011) |
| Uncertainty about the choice of a manageable number of suitable KPIs                                    | On KPIs derivation and use, less is more! Increased AI/automation and data analytics mean the relative importance of this issue is diminishing as advanced technologies support better quality KPIs.   | Northcott & Taulapapa (2012)  |
| Causality in SPMM models may be poorly understood and under-developed particularly in the public sector | Transposition of customer perspective in public sector requires clarification of new causal relationships, yet this remains largely unclear and negatively impact KPI implication.   | Northcott & Taulapapa (2012), Micheli & Kennerley (2005)                          |

Source: Adapted by author

Both views seem to suggest that performance measurement would work better if the public sector is “privatised”. While experience under NPM reforms reveals that some aspects of the public sectors can indeed be privatized and some public services “outsourced”, this cannot be done to the entire public sector since the two sectors are not fully comparable implying that there will be a substantial residual public-sector component which should also be subject to SPMM.

Overall, though certain public-sector physiognomies can be counterproductive to developing and using performance indicators the literature offers credible solutions to unique challenges and there is consensus that even with its myriad challenges, performance measurement can still add value to the public sector. There is consensus in the literature that the objectives of PSOs are very different from those of commercial organisations which can complicate performance measurement and management in the former. Evidence has proved most Western governments made greater use of performance measures and targets under NPM reforms in all aspects of organisational performance evaluation and to make them more accountable. Clearly, plenty of successes have been scored in terms of increased overall economy, efficiency and effectiveness, improved accountability and transparency and enhanced responsiveness of public sector organisations to the public needs. This highly rational approach to performance management is well rooted in management and organisational literature complemented by agency theory. The use of targets in the public sector is not without genuine problems and legitimate criticisms, which have been well articulated in this paper. One can argue that it is extremely difficult to effectively assess the impact of the use of targets in the public sector in the absence of ability to assess the counterfactual. Our view is that this is not unique to the SPMM field. Ultimately, there is a lot of irrefutable empirical evidence that much of the public sector’s work is amenable to and would benefit from performance measurement.

The study concluded that the difficulties in applying KPIs and performance measurement vary from organisation to organisation, and on a continuum from generally being easier for private sector business organisations, slightly challenging for nonprofit organisations to very challenging for the public sector.

The literature identified the key differences between the private and public sectors and the challenges they pose for developing and implementing KPIs in the public sector. Clearly none of them is unsurmountable because once they are identified and properly mitigated the public sector should benefit from performance improvements just like the private sector.

*Adoption and adaptation of contemporary SPMM models in the public sector:* Overall, this study revealed that, despite the underlying differences between the private and government sectors, many public sectors and their various organisations have increasingly adopted hitherto private sector SPMM models such as the balance score card (BSC) as their main SPMM tool and control mechanism because of its “balanced set of measures”. A core requirement for effective performance management is fact-based decision making which in turn demands relevant and reliable data. The BSC’s multiple perspectives-based data allows government agencies to demonstrate real outcomes and effects of their efforts thereby allowing taxpayers to judge their achievements across a range of measures and decide if they are getting the best value for their tax dollar (Ruzita et al. 2012; Brignall & Modell, 2000; Murby & Gould, 2005; Macki, 2008; Ross, 2011; Gadenne & Sharma, 2009; Lawson et al, 2006; Kaplan, 2001; Greatbanks & Tapp, 2007; Northcott & Taulapapa, 2012; Micheli & Kennerley, 2005, Kaplan & Norton, 1993, 1996, 2001, 2001a, 2001b).

This thorough micro examination of sectoral commonalities and divergences revealed their impact on the nature of public sector performance measurement, particularly the choice, application, and use of KPIs. This will further help identify areas where the public sector may benefit most from private sector approaches or areas where benefits are likely to be hindered, and in the process, attempt to address the myriad challenges and potential hindrances to future institutionalisation of public-sector SPMM. This section was a springboard for identifying and recommending value-adding private sector approaches to the public sector, the next and final stop of this paper.

#### 5.4 Benchmarking private sector practices to the public sector

The systematic review revealed the following two key issues with theoretical implications  
*Was public sector SPMM borrowed from the private sector?* At the beginning, it was stated that some authors suggest that public sector SPMM was “borrowed” from the private sector in the 1990s, but this study has revealed that while SPMM existed longer in the private sector (since early 3<sup>rd</sup> century AD), it was independently introduced in the public sector in the early 20<sup>th</sup> century and evolved in parallel with private sector. SPMM was later introduced in the third sector in the 1960s and 1970s and evolved in the three sectors until the 1990s when there is convergence through the introduction of multi-dimensional SPMM systems in the three sectors.

*Is the private sector superior to the public sector?* There is a perception that public sector performance is universally poorer than in the private sector. But some literature outrightly questions this so-called notion of “private sector superiority” claiming it has no basis in fact (Ryan, 2018; Mihaiu et al., 2010; Esu & Inyang, 2009). Most modern international empirical research evidence has constantly shown that no significant systematic differences exist in efficiency, effectiveness or other performance measures between public and private sector organisations thus concluding that the assumptions behind private sector superiority notion have serious flaws which have been exposed. In fact, authors reckon, this notion is advanced by private sector managers, who want to boast of greater superiority over their public sector counterparts with nothing to back it up. This study has proved that there have been exemplars of excellence in the implementation of public sector SPMM in western countries such as US, UK, Canada, EU countries, Japan, Australia, New Zealand and others which can rival or exceed its implementation in some private sector organisations.

In conclusion today, more than ever, a package of bold measures is needed, which will lead to an even more improved and efficient public-sector performance. This section has attempted to synthesise research and empirical evidence on public sector performance improvement concluding with some suggestions which may assist authorities in future. It has demonstrated that it is possible to provide government leaders with the insights, data, and tools that their private sector peers have used to drive their performance improvements and proffered some hints on how this can be done in practice supported by practitioners’ experience. This can be achieved through consensus on public sector SPMM methodologies and developing an authoritative and consistent set of benchmarks. Political and PSO leadership will require robust performance systems and data to assess the performance of their organisations and identify and harness opportunities for productivity improvements, something which previously used to be the preserve of the private sector.

Additionally, governments have a huge information bank of previous “best-in-class” case studies of countries which have successfully improved public sector productivity at various levels of government which they can tap into. It is our sincere wish that these conclusions, can be generalised to many countries which have or are about to embark on the performance measurement and improvement journey across the world especially given that the performance measurement challenges faced in some countries are expected to be equally prevalent in other countries. Finally, there has been a deliberate shift towards making the public sector more efficient and effective through use of more targets and benchmarking with private sector practices. The evidence shows that benchmarking can lead to improved performance in public organisations. However, to be successful, stakeholders must demand that PSOs rectify any identified performance differentials relative to the benchmark. Overall, governments must be committed to learning and adapting from the private and third sectors. Failure this, then the benchmarking would be an exercise in futility which simply results in no tangible performance improvement.

##### 5.4.1 Ten-point framework for benchmarking successful private-sector practices into the public sector

This SPMM journey has revealed how private sector practices were adopted into the public sector under the guise of NPM. According to Bourvard et. al. (2011) public sector performance became desirable for decades, but it also became a mandatory tool for fiscal consolidation for governments riddled with increased debt burden after austerity measures were widely resisted by citizens and legislatures globally.

Fortunately, public, and private sector experts with many years’ experiences working with governments believe that public sector SPMM can be a useful tool and that governments have the capacity to confront upcoming challenges head-on and surmount them (Jason, 2023; Bergmann, 2023; Blackburn et al., 2021;

Chisnell, 2021; Bourvard et. al. 2011; CIMA, 2012; Farrell & Goodman, 2013; Mayne, 2007; Mihaiu et al., 2010; OAGC, 2000; Ostroff, 2006; Parrado & Loeffler, 2013; Ross, 2011, 2012; US-OMB, 2003). Their conclusions are invaluable as we progress into the final part of this paper where we proffer a ten point framework for successfully transplanting private sector approaches to the public sector.

i) *Public sector performance is indeed measurable*: Although complex, experts assert that every aspect of public sector performance can be practically tracked, from inputs and outputs to outcomes. They emphasize that governments need to have a better understanding of these measurement dimensions. Even partial or imperfect proxies for performance measures can contribute to significant improvements in government performance.

ii) *Benchmarking against similar entities can help drive performance*: This matter is exhaustively addressed in this paper through identification of how the differences between the two sectors can be leveraged. Many commonalities and contrasts exist between the different sectors to enable meaningful comparisons which can help public sectors gain a better understanding of various dimensions of their services allowing them to “piggy-frog” the private sector and redesign established systems through application of newest methodologies and technologies. Moreover, public sectors can learn a lot more from other public sector through international benchmarking of their public goods and services.

iii) *Understanding performance drivers helps improve performance*: Policymakers should identify relevant comparisons and analyze the causes of performance differences. They must understand and prioritize these factors to determine necessary interventions and resource allocation.

iv) *Increased quality and lower costs can coexist*: Quality and cost are often seen as being negatively correlated, but research shows they are not necessarily exclusive. Experts assert that governments can improve performance without spending more, though more data and validation is needed.

v) *ICT is not a cure-all*: While ICT is crucial for public sector productivity, experts caution it can hinder productivity if poorly managed. The private sector shows IT-driven growth needs "managerial and process innovations." Public managers must adopt new mindsets to lead in these areas.

vi) *Transformational change should be talent-oriented, not organizational chart-focused*: The public sector can take cues from the private sector, where crises often present unique opportunities to enhance performance and undertake fundamental reforms. Such changes should be comprehensive, substantive, and fully participatory.

vii) *Sustained improvement requires a performance culture*: Which the public sector is notoriously perceived to seriously lack. There must be a complete change in mindset and philosophy to one that supports performance improvement, admittedly, a tall feat.

viii) *It is possible to achieve far reaching improvement in public sector performance*: Governments face daunting performance transformation challenges under unprecedented resource constraints. Yet, as established in this study core nations like Canada, Sweden, the UK, the US and France have, for over four decades, produced some shining exemplars of how governments can overcome the hurdles and serve as models for major modern governmental reforms.

ix) *The public sectors are not alone!* Several global frameworks were developed by international development organisations such as the World Bank, United Nations and International Monetary Fund over the years aimed at assisting countries implement modern administrative reforms and assess their public sectors using various robust and targeted KPIs. This means the public sectors, especially in periphery countries with severe resource and capacity constraints, are and should not be alone in their performance improvement journey.

x) *The public, private and third sectors are not competing but are complimentary!* Whoever said that the three core sectors of society are necessarily competing? The public sector has a primary role to provide the other two sectors with an enabling environment to help them assist it in carrying out its broader societal mandates. Moreover, there is now demonstrable and increased convergence and collaborative working between government and both the private and third sectors as evidenced by the exponential growth in public-private-partnerships (PPPs) since the turn of the 21<sup>st</sup> century.

#### 5.4.2 Action not rhetoric! Benchmarking private sector approaches to public sector

Finally, we identify the recommendations on how to transfer private sector SPMM practices to the public sector. These principles, based on broad and real-world experience of consultants who have worked in both public and private sectors, characterise successful public sector SPMM efforts and can assist public entities achieve their desired end states. What is required now is government leaders and key decision makers who possess the creativity, innovation, and determination to make a difference and take real decisive action which should include:

i) Setting clear, long-range aspirations for performance

ii) Intensify efforts to measure and compare public sector performance as a means to assess the quality of public services and policies.

iii) Put smart data at the core of government decision-making on tradeoffs and priorities.

iv) Regular, collaborative dialogues on performance thereby instilling a performance-based culture.

- v) Develop holistic and sustained change programmes and lead the transformation.
- vi) Innovate better methods to communicate results and measurable impact of performance.
- vii) Engage all staff, users, and stakeholders in SPMM activities and ensure that they clearly understand the detailed processes, outputs, results, and outcomes underlying benchmarking from their respective perspectives.
- viii) Focus of benchmarking should range well beyond unit costs and productivity levels.
- ix) Identification of critical success factors from recommended benchmarking approaches, prior projects, and international research to ensure that performance and process comparisons are translated into actual service and outcome improvements.
- x) Benchmarking must be integrated into the full policy and public management cycle as a public management improvement and organisational learning tool.

This section shows that if SPMM implementation is done as part of properly planned change management, it can be successful in the public sector just like in the private sector. I close this section by referring to Rahim and Panicker (2007) who likened 21<sup>st</sup> century government to “a large behemoth, often pulled down by its own size and complexity”. They analogised that governments, like dinosaurs, live in an era of rapid change. Government Unlike, dinosaurs cannot afford to make itself extinct and **must** and **has** to change. They concluded that if the right and strong strings are pulled “the dinosaur can dance.” (Muravu,2020). We draw the parallel that just like change management and SPMM if employed within a proper change management framework in government, with the right tools, attitudes and conditions, it can produce the required results.

## 6. Recommendations, Future Research and Conclusion

This section provides the paper’s overall conclusion, conceptual and managerial recommendations that positions its findings in the context of the broader SPMM literature.

### 6.1 Summary of the results

This paper comprised a theoretical research paper based on a systematic literature review. The following are the key results on the four dimensions of SPMM covered in this paper:

*Genesis and trajectory of SPMM:* There was a phased parallel evolution and revolution of SPMM in the private (early 3<sup>rd</sup> century AD), public (1900s) and third sectors (1960-70s) until SPMM convergence in the 1990s with the implementation of contemporary multi-dimensional systems in the three sectors. Since then, SPMM has evolved through “adoption and adaptation” to the various sectoral, organisational and country nuances and in response to supervening environmental and contextual trends.

*Derivation, application and use of public sector KPIs:* Based on a thorough evaluation of 115 public sector models globally, robust and comprehensive KPIs will contribute to effective SPMM systems and add value to public sector performance management, despite the well-documented unanticipated or dysfunctional consequences of target setting.

*Differences and commonalities between private and public sectors and impact on latter’s SPMM implementation:* Sectoral divergences impact the nature of public sector SPMM, particularly the choice, application and use of KPI such that SPMM implementation and use in public sectors’ diverse, complex and unique operational and environmental contexts must be nuanced, attention-directing and enhance PSOs’ strategic performance.

*Benchmarking successful private sector practices into the public sector:* Helped identify areas where the public sector may benefit most from successful private sector approaches and attempted to address the myriad of challenges and potential hindrances to future institutionalisation of public-sector SPMM through proposing a new robust public service SPMM model, a ten-point framework and practical recommendations for successful transplantation of private sector approaches to the public sector.

### 6.2 Managerial and Conceptual Implications and Recommendations

What are the implications of this study on the conceptualization and application of strategic performance measurement and management in the New Public Management context? Scientific research in management and business administration must endeavor to solve real life or practical managerial problems (Ulrich, 1983; Liebetrau, 2015) and this is particularly imperative considering the strongly established practitioner-academia symbiotic bond in SPMM field. In this section we attempt to provide a unique angle that resonates with both academia (conceptual) and real-world practical requirements of professional managers in workplace practice,

real business impact and sufficient flexibility to adapt to the constantly evolving requirements of the knowledge era (Fenge, 2009; Usher, 2002; Banerjee & Morley, 2013) and lately the supervening digital economy. Thus, the study results have practical implications at both theoretical and managerial levels on the conceptualisation and application of SPMM.

### 6.2.1 Conceptual Implications

The study's systematic review highlights several key conceptual implications for strategic performance measurement and management (SPMM) in the New Public Management context.

1. Improvement to systematic literature review (SLR) protocol. This study resulted in proposed improvement of two research concepts pertaining to the protocol.

- *Rechristening of phase 6 of the SLR protocol.* The study proposed renaming of Transfield et al (2003)'s Phase 6 of the original SLR protocol, "selection of primary studies" which referred exclusively to scientific articles to "selection of primary dataset". This was done to reflect the bibliometric protocol which was adopted in the systematic literature as explained below.
- *Adoption of bibliometric protocol in SLR.* For the first time in SLR, we adopted the bibliometric protocol which recognises that contemporary research requires more than just scholarly articles but also "grey" literature, professional or workshop reports (unpublished research from institutions other than traditional commercial or academic publishers and distributors) to be incorporated in research to conduct rigorous and effective research (ProQtest, n.d.; Bourne, 2015; "International Journal of Operations..", 2016).

2. Myths versus realities of strategic performance measurement and management

*The SPMM challenge of attribution:* SPMM was first introduced in the private sector and transplanted to the public and third sectors in the last two decades of the 20<sup>th</sup> century. Wrong! The study revealed, beyond a doubt, a phased parallel evolution of SPMM in the three sectors dating back centuries but was later transformed through the implementation of private sector type managerialism and NPM type reforms (Mihaiu et al., 2010). There is therefore an apparent problem of attribution.

*The misleading notion of private sector superiority:* There is an age old claim that the private sector is more superior in all respects to the public sector. As the study revealed this claim is perpetuated by the private sector and its egoistic executives but is not founded in reality. They advanced this as the reason why SPMM cannot be employed in the public sector and indeed why the private sector cannot be privatized or can only be privatized to the extent that it mimics the private sector. Granted, the public sector has unique traits but this study proved beyond a doubt that some public sectors have successfully implemented SPMM and effectively privatized some public services.

3. Adoption of the proposed new systems-based holistic SPMM research approach

The new SPMM holistic systems-based framework and major developments from business trends and impacts on performance measurement proposed by Bititci (2011) and Bititci et al. (2012), is consistent with the literature observation that when Kaplan and Norton's introduced the Balanced Scorecard in 1992, it was clear that the new SPMM systems required new measurement techniques and mindsets. While not a recommended area of research *per se*, this unique framework is a highly recommended read for any SPMM researcher and potentially a vital cog in any researcher's toolbox.

4. Performance measures or Key Performance Indicators are indispensable in public sector SPMM.

Just like in the private sector, the public sector must focus on KPIs for effective performance management. This approach promotes managerial focus and a holistic understanding of organizational performance.

5. Introduction of new public services descriptive model and ten-point framework for transplanting private sector practices to the public sector

In response to loud literature calls for the introduction of new SPMM holistic systems-based frameworks that are responsive to the VUCA world in which we operate today, this study proposed a new comprehensive and comprehensible public services descriptive model which incorporates existing models which were either too simplistic or complicated for meaningful implementation. It also introduced a *ten-point framework* on how to transplant successful SPMM private sector practices to the public sector and actual practical, tried and tested principles on how to do it. The study reckons that the private sector can act as a lab from which the larger public sector can learn significantly from its performance management practices, implement them and scale them up. This involves understanding and adopting successful governance factors proven to enhance organizational performance.

6. Contribution of corporates and epistemological communities to SPMM is critically important.

Some corporations and research communities such as think tanks, accounting and consultancy firms have interest in and make significant contributions to SPMM theory and practice, as thought leaders and policy

influencers given their massive resources, extensive expertise and practitioner experience but this role is not adequately illuminated nor acknowledged in literature as it should.

7. Need to SPMM research to respond to the dynamic and complex environments.

The study acknowledges the need for researchers and practitioners to ensure that SPMM research evolve in response to the volatile, uncertain, complex, and ambiguous (VUCA) world.

8. The SPMM's field's Conceptual-Philosophical quagmire

This cumulative study unearthed a minefield of SPMM conceptual and philosophical issues, which the literature reckons pose serious problems for both SPMM theory and practice which has hindered development of the field.

*a) Professionalisation of SPMM:* The study interrogated the literature debate on the constraints and necessary conditions for the potential organic transformation of SPMM into a distinct academic field and requirements for its crystallisation.

*b) Lack of SPMM terminological and definitional convergence:* The study revealed a lack of terminological and definitional convergence on today's core SPMM terms, concepts and management lexicon which could hinder the development of the field. Muravu (2020) proposed that additional research be conducted through "theoretical essays" and/or "think-pieces" to address these academic lacunas on the SPMM subject. Our view remains that there is an urgent need to address these conceptual blind spots on the professionalisation of SPMM field and SPMM definitional and terminological convergence if ultimate performance information and their use are to be meaningful and credible. Considering that nothing has been done to address this, we renew our call for theoretical essays and think-pieces and decisive action by the SPMM community of academicians and practitioners to address these important subjects which may contribute to further SPMM discourse.

9. The academic-practitioner gap in SPMM must be addressed

While SPMM frameworks outline common success factors for high-performance organizations, we argue that their practical application remains limited. Academic work is often criticized for being too vague for managerial use, with success factors deemed too abstract and generic. Academics lack the accountability that managers face, leading to recommendations that are plausible in theory but impractical in reality. Modern SPMM research needs to focus on practical application to help managers identify and manage high-performance characteristics specific to their organizations. As an experienced SPMM practitioner, the author often had to improvise solutions due to the absence of practical precedents or literature, a trend likely to persist in increasingly uncertain and disruptive environments.

## 6.2.2 Managerial Recommendations

The following are the managerial implications and recommendations from the systematic review on the conceptualisation and application of on Strategic Performance Measurement and Management (SPMM) in the New Public Management context. The study's insights can guide public sector managers in effectively implementing SPMM practices.

### *Adoption of private sector practices in the public sector*

Public sector managers should consider transplanting successful performance management practices from the private sector. This involves incorporating governance factors known to enhance organizational performance, thereby improving efficiency and effectiveness in public sector organizations. By adopting these practices, public sector entities can benefit from innovative strategies that have been tested and proven in the private sector.

### *Emphasis on key performance indicators (KPIs)*

To avoid the pitfalls of information overload, managers are encouraged to focus on fewer, targeted KPIs that provide a comprehensive view of organizational performance. This approach ensures that essential performance aspects are measured without overwhelming managers with excessive data, thus maintaining clarity and focus in performance assessment.

### *Engagement with corporates and epistemological communities*

Public managers must continue active engagement with corporate entities and research entities as they can provide valuable insights and influence policy-making. Managers should leverage the extensive expertise and experience of these communities, which act as the confluence of theory and practice and contribute significantly to the development and practice of SPMM. Such interactions can lead to the adoption of cutting-edge practices and foster a culture of continuous improvement.



### *Adaptation to dynamic and complex environments*

Managers must recognize the need for evolving practical SPMM approaches to respond to the volatile, uncertain, complex, and ambiguous (VUCA) world. This requires quick adaptation to disruptive changes, ensuring that SPMM approaches remain transformational and capable of maintaining stability while improving performance. Flexibility and responsiveness are key to navigating the challenges of dynamic environments. Organizations must adapt quickly to fast-paced changes, requiring robust, modifiable and transformational SPMM approaches to maintain stability, relevance and improve performance.

### *Broad application of SPMM principles*

SPMM principles should be applied not only within the private sector but also in public and third sectors. This broad application enhances accountability, transparency, and sustainable service delivery, contributing to overall organizational effectiveness. By adopting a holistic approach, managers can ensure that performance measurement and management practices are comprehensive and inclusive.

The above conceptual and managerial implications and recommendations, consistent with the findings of this study, emphasize the importance of a proactive, integrative, and holistic systems-based approach to SPMM in the public sector. Such an approach can lead to more effective research, innovative solutions, and a better understanding of causal relationships in complex ecosystems. Academia and managers are encouraged to implement these recommendations to enhance development of SPMM theory and performance management to achieve organizational excellence respectively.

### 6.2.3 Overall contributions and originality value

The following are the contributions and originality value of this paper in the context of the broad SPMM literature. This paper is, to the author's knowledge, one of the most uniquely comprehensive researches covering four separate yet complimentary dimensions of SPMM from its chronology, evolution and revolution in the private, public and third sectors since the pre-industrial age through the modern digital age. It then assessed the derivation and application of strategic performance measures, distinctive characteristics of the public sector and implications on adoption and adaptation of SPMM systems and finally, the transferability of successful private sector practices to the public sector. The refinement and rechristening of Phase 6 of the SLR from "selection of the primary dataset" to "selection of primary studies" to incorporate valuable "grey" literature in addition to the oft used peer reviewed literature was game-changing. It significantly improved the richness of the study and facilitated a much more rigorous research by considering substantial top notch, but unpublished, research especially empirical studies by corporates and epistemological communities who have been at the forefront of SPMM practice for decades.

Based on the revelation that existing public sector descriptive SPMM models in literature were either too simplistic to incorporate all crucial elements or way too complex for practical implementation, the study proposed a more 'balanced' overall public sector SPMM descriptive model. If properly applied within the right paradigm and contextual setting, they should result in improved quality of life, and prosperity and empowerment for citizens - the ultimate goal of any government public service delivery system. The paper also developed a ten-point framework for identifying and recommending value-adding private sector approaches to the public sector coupled with eight practical recommendations for benchmarking them. The ultimate aim was providing government leaders with performance management tools, data and insights hitherto enjoyed by their private sector counterparts to drive better and more efficient public sector performance and improved service delivery.

### 6.3 Limitations and Future Research

The following are the limitations of the research, recommendation for future research and the overall conclusion.

#### 6.3.1 Limitations of the Research

The research acknowledges the following limitations:

a) *Breadth vs. Depth*: The study covered broad relevant areas, causing a need to prioritize and abbreviate information, which might have affected the depth and detail of the analysis and could limit the comprehensiveness of the study.

b) *Diverse Literature vs Time Constraints*: The systematic review covered extensive and diverse literature, making the analysis cumbersome and time-consuming, especially given the severe time constraints of the doctorate program. The theoretical component of the programme, which produced one out of three papers took nearly half of the available research time leaving not enough time for the empirical component which produced

two papers. This required numerous judgment calls, which could introduce bias and impact the replicability of the study.

c) *Objectivity and Bias*: Concerns about objectivity arise due to the interpretation of both published and unpublished documents, which are outside the researcher's control. The potential for introducing biased views was addressed by employing a systematic literature review (SLR) and following all outlined SLR processes to enhance replicability and reduce researcher bias. The double phase single review process employed during the study ensured rigour and enhanced quality of the study findings while the iterative nature of the SLR process added further dynamism and ensured a fit-for-purpose protocol.

d) *Theoretical Nature of the Paper*: As a theoretical paper, the findings rely heavily on existing literature, making it subject to peer scrutiny thereby ensuring internal validity/reliability. However, the lack of empirical testing limits the ability to judge the paper's external validity. These limitations emphasize the need for future research to address these challenges and enhance the robustness and applicability of SPMM research.

### 6.3.2 Directions for Future research

This is our fifth paper dedicated to the theory and application of SPMM since 2020 (c.f. Muravu, 2020; 2021, 2023, 2023a) which validated a substantial, if somewhat over-ambitious, agenda for future SPMM research which has been outlined over the last couple of decades especially on emergent issues related to VUCA environment. This was highlighted the 2021 Performance Measurement Association' conference held in Groningen, Netherlands from 27-30 June 2021 whose theme was "Performance Measurement and Management in Dynamic Environments" (PMA, 2021) reflects the SPMM discipline's attempt to address the theory and practice related to the VUCA environment.

The following are the specific prospective areas for future SPMM research arising from this research including some hitherto unanticipated domains:

- Testing the proposed comprehensive new public services model, the ten-point framework, and recommendations for transferring private sector practices to the public sector will be crucial in validating their added value within the realm of public sector SPMM.
- SPMM and risk, and uncertainty management
- SPMM and agile transformations
- SPMM and digital transformations or disruptive technologies (e.g. artificial intelligence/machine learning and robotics, blockchain etc)
- The impact of advanced digitalisation / ICTs on SPMM systems
- SPMM and data governance (data analytics, security and privacy).
- SPPM and climate change
- Dynamics of SPMM in organisational strategy and leadership.
- SPMM and change management
- SPMM and complex project management
- Application of performance measures in communicating strategy or policy changes.
- The alignment of performance measures and strategy in dynamic environments.
- How to apply performance measures to predict environmental change.
- Utilisation of real time feedback from measures in reshaping strategy and policy
- The culture and management style necessary for effective SPMM.
- The various methodologies for control in dynamic environments.
- Assignment of authority and accountability in dynamic environments.
- The role of SPMM in balancing innovation and control.
- The role of performance measures in governance during times of disruptive change.
- Challenges for planning and budgeting in dynamic environments and overcoming them.
- The role of SPMM in maintaining alignment between operations and organizational strategy.
- Role of SPMM in operational improvement in dynamic environments.
- SPMM in new product and/or service development.
- Monitoring and responding to real-time data in operations.
- Incentives and compensation issues in SPMM
- SPMM in non-financial and financial dimensions (e.g. costs or profitability)
- The application of SPMM in managerial decision making
- The conceptualization, design and implementation of SPMM.
- Techniques for utilisation of SPMM in decision making and corrective action.
- The effect of SPMM on organisational performance.

- The nascent SPMM systems and practices in organisations
- Case studies of effective (and/or ineffective) use of SPMM systems
- The dysfunctional consequences of SPMM

#### 6.4 Conclusion

This systematic review was a marathon study which interrogated the development and trajectory of the field of SPMM in the private, public and third sectors. The findings were applied to three public sector SPMM dimensions, followed by a close examination of the distinctive characteristics of the public sector and their implications on SPMM in the sector. The review concluded with identifying and proffering some principles on transplanting private sector performance management and improvement practices to the public sector. The study constitutes one of the single most comprehensive studies which concurrently explores rarely covered yet crucial causal linkages in SPMM dimensions thereby providing unique insights and contributions to literature.

Overall, by first interrogating the history of SPMM, the paper helps both practitioners and scholars understand the concept better, enhances acceptability and frames the thinking around the subject. The rigorous chronological and multi-dimensional analysis proffers an invaluable perspective which should be the legitimate departure point for any inquiry, critique or improvement on contemporary public sector SPMM practices.

Like the private sector the public sector must be cognisant of the criticality of SPMM in supporting organisational objectives. The systematic review revealed that the public sector has potential to learn much from private sector practices and gain lots from what the literature reveals about what governance factors are proven critical for organisational performance. According to CIMA (2010), the private sector's comparative simplicity provides the public sector an enlightening milieu as it can act as laboratory or pilot to learn effective performance management practices. The foregoing discussion highlighted the need to surmount obstacles that have hampered them and learn from the lessons demonstrated through KPI implementation and utilization to date. Overall, the review revealed that SPMM in the public sector clearly demonstrate that demand and enthusiasm for performance improvement is unlikely to diminish any time soon. The literature recognized the challenges and complexity associated with implementing public sector SPMM and attempted to provide practitioner driven potential strategies for addressing common public-sector performance measurement issues. But they are all not a magic wand and revolve around interrogating and understanding success factors and contextual setting of public sector SPMM.

SPMM in the public sector may not have received the credit it deserves for various real or perceived reasons but evidence from effective performance management has proved that timely and accurate information significantly improves decision making and that the right measures can and do encourage desired behaviours. The opposite can only result in poor decision making while measuring wrong things, a common accusation levelled at the public-sector, will inevitably lead to waste. The literature confirmed that "less is more", that is, monitoring fewer but targeted or key measures results in more managerial focus and attention to key issues and provide a more holistic understanding of the organisation which assigns more weight to the entity's performance.

We learnt that organisations utilize performance information for various internal and external purposes which come with diverse data requirements, internally for performance improvement and externally for promotion and legitimacy. A key observation in the entire study, often not magnified, is the significant role of epistemological communities in the development of SPMM theory and practice based on their extensive expertise and practitioner experience which make them "thought leaders" or "think tanks" in international SPMM and contributions to policymaking.

The results of this paper can be read in the context of, and resonate perfectly with, the outcome of the 11th conference of the Performance Measurement Association (PMA) held in Warsaw, Poland in 2018 in which multi-disciplinary delegates converged from across the globe ([www.pmaconference.co.uk](http://www.pmaconference.co.uk)). The range and content of topics discussed, and typical presentations made, revealed the encroachment of SPMM into hitherto unanticipated domains such as ratings of well-being and happiness; climate change, dynamics of governmental performance measurement and management in various areas such as web-based social credit systems, organisational strategy, leadership, and complex project management. These examples, which were well articulated at this workshop, characterise the direction strategic performance measurement and management is taking in the next decade and decades to come as it is used to assess scores of people and organisations for overall daily benefit to society including aspects of life hitherto never directly associated with SPMM. The symbiotic evolution of organisations necessitated, to a large extent, by interdependence with connected external entities in a globalised world specifically echo the practical implications and expound the findings of this paper.

Additionally, most international SPMM conferences and peer reviewed journals have lately been calling for papers on SPMM in dynamic environments like Industry 4.0. (e.g. International Journal of Production Research, 2017; Performance Measurement Association, 2020; PMA, 2021). The continually evolving nature of the

operational environment and work in an increasingly inter-connected world, coupled with fast-paced change has transformed us into a volatile, uncertain, complex and ambiguous (VUCA) world.

This implies that organisations must respond flexibly and adapt even faster than previously or suffer and eventually die. This VUCA world demands that traditional SPMM approaches must evolve fast enough to match the speed and volume of discontinuous change in the environment thereby simulating the “S” or Stability in VUCAS - the latest derivation of VUCA. Contextually, current SPMM approaches must be modified to fit the new landscape and, emerging transformational approaches identified and adopted to make organisations perform better and managers’ role is to figure out how to modify existing approaches and identify and adopt new ones.

We have adopted the above factual events and analogies because they perfectly resonate with and aptly summarise both the purpose and findings of this paper. Oftentimes, we tend to think of SPMM as a preserve of the private sector, but these analogies and findings of this paper reflect its growing and broad conceptualisation, application and remit in the public and third sectors.

This paper discussed in detail how public sector organisations use performance information for *improving accountability and transparency* to the public who entrust them with resources in return for economic, efficient, effective and equitable service delivery. Based on the systematic review, the paper concludes that strategic performance measurement and management has evolved beyond just traditional frameworks and analytics to become grounded in and a necessity in people’s daily lives and activities. We close with an all-time valuable quote from one Admiral Grace M. Hopper who said: “One accurate measurement is worth a thousand expert opinions.” It reinforces this study’s findings on the importance of SPMM as a tool for high performance organisations that cannot be substituted by guesswork no matter how well-informed they are. Concurrently, SPMM information should not substitute human judgement but inform it. For now, public sector strategic performance measurement and management survive another day.

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