Developing a performance management scorecard for private secondary schools in the eThekwini Municipality

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ABSTRACT

Private schools in South Africa face several challenges, including undefined performance objectives, inadequate monitoring and evaluation systems, and limited adoption of data-driven decision-making. This study addresses these challenges in basic education and proposes a comprehensive performance management model for private secondary schools. In Stages 1 and 2 of model development, the study uses a systematic literature review of 220 articles (finally narrowed down to 43 usable articles) to develop a conceptual model comprising four perspectives (antecedents), several sub-antecedents and measuring criteria. The model then adopts a positivist approach in the empirical research, focusing on model validation (Stage 3) and practical implementation (Stage 4). Drawing from Kaplan and Norton's Balanced Scorecard, it incorporates four key perspectives: Student, Internal Academic Excellence, Learning and Growth, and Resource. Empirical validation using data from 244 respondents across 12 private secondary schools in the eThekwini district confirmed the model's structural validity through strong fit indices, including Comparative Fit Index (CFI), Normed Fit Index (NFI), and Tucker-Lewis Index (TLI). However, the Root Mean Square Error of Approximation (RMSEA) revealed marginal to poor absolute fit, highlighting negative intercorrelations within the Learning and Growth Perspective, particularly issues related to staff respect and valuing student input. During implementation, the model achieved an overall satisfactory performance rating of 3.85 on a 5-point scale. The Student Perspective scored the lowest (3.39), emphasising the need for improvement in student engagement and preparedness. Notably, learners' thorough reading of material before class scored only 2.81 (this criterion scored the lowest). These findings underscore the model's application in identifying specific areas for improvement and addressing institutional culture challenges within the Learning and growth dimension of performance management. This scorecard thus establishes measurable goals and a holistic performance management system for private secondary schools, aiding managers, boards, and researchers in improving performance.

Keywords: Private secondary schools; performance management; balanced scorecard; student engagement; academic excellence; school performance.

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LIST OF ABBREVIATIONS

AI	Adequate Infrastructure
BBBEE	Broad-Based Black Economic Empowerment
CDE	Centre for Development and Enterprise
CDF	Constituency Development Fund
CFI	Comparative Fit Index
COLTS	Culture of Learning, Teaching and Services
CPD	Completing Professional Development
CPTD	Continuous Professional Teacher Development
DAS	Developmental Appraisal System
DBE	Department of Basic Education
EEA	Employment of Educators Act
ELRC	Education Labour Relations Council
EPU	Education Policy Unit
IBSS	International Bibliography of Social Science
ICT	Information and Communication Technology
IEB	Independent Examiners Board
IQMS	Integrated Quality Management System
ISCMI	International Conference on Soft Computing & Machine Intelligence
IUB	Islamia University of Bahawalpur
IWB	Innovative Work Behaviour
KMO	Kaiser-Meyer-Olkin
KPI	Key Performance Indicators
MCS	Management Control System
NDP	National Development Plan
NFI	Normed Fit Index
NLM	National Library of Medicine
PAR	proficient academic reader
PBRS	Performance Based Reward System
PDP	Performance Development Plans
PLS	Partial Least Squares

PMS	Performance Management System
QMS	Quality Management System
RESEP	Research on Socioeconomic Policy
RMSEA	Root Mean Square Error of Approximation
ROI	Return on Investment
SAHRC	South African Human Rights Commission
SEM	Structural Equation Modelling
SMSIM	School Management System Interoperability Maturity
SPSS	Statistical Package for the Social Sciences
STEM	Science, Technology, Engineering, and Mathematics
TLI	Tucker-Lewis Index
UNICEF	United Nations Children's Fund
VAM	Value-Added Models
WSE	Whole School Evaluation

CHAPTER 1: NATURE AND SCOPE OF THE STUDY

1.1 INTRODUCTION

Educating children is a fundamental human right; every child deserves access to a quality education. According to the United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2019), quality education should be accessible to all. Oguno, Egbewole and Kleven (2018) emphasise the significance of education in the development of individuals and communities. At the continental level, the Continental Education Strategy for Africa (2016-2025) emphasises the need to reorient Africa's education and training to meet the knowledge, competencies, skills, and creativity necessary to nurture Africa's core values. Furthermore, the African Union Agenda 2063 (African Union Commission, 2015) calls for sustainable development and inclusive growth. In contrast, Onuora-Oguno *et al.* (2018) claim that these goals cannot be achieved without quality education. In line with this scenario, the United Nations Children's Fund (UNICEF) emphasises the importance of quality education as a cornerstone of sustainable development (Ferguson, 2019). In addition, quality education is recognised as one of the six fundamental goals of the International Declaration on Human Rights. As defined by Ferguson (2019), quality education encompasses both the content and methods of delivery that yield a desired learning outcome. The South African government has taken an important step towards aligning with Agenda 2063 in Education by implementing the National Development Plan (NDP) 2030, which includes the Sustainable Development Goal (SDG 4) (United Nations, 2015) for inclusive, equitable, and quality education, as well as the promotion of lifelong learning opportunities. The Department of Basic Education (DBE, 2020) conducted an environmental scan, concluding that reinforcing accountability within school systems was necessary to enhance learning during the COVID-19 pandemic.

Furthermore, the DBE’s annual performance plan for 2020/2021 emphasises the importance of effective teaching in overcoming the effects of COVID-19 in the education sector and throughout the country. In addition to other classroom factors, they noted that

teachers' capabilities have a significant influence on learners' chances of learning. The DBE's assertions are well-aligned with the NDP's Vision 2030 for providing equitable and quality education.

As early as the 1990s, teacher unions, led by SADTU, proposed a new Developmental Appraisal System (DAS) to replace the old evaluation system for educators (Metcalf, 1994). DAS was the subject of intense discussion, debate, and a rapid exchange of information. In the negotiation aimed at addressing the principles, processes, and procedures of the new appraisal system, teacher unions and 18 former Departments of Education participated (Metcalf, 1994; Thabane, 2000; Naicker & Waddy, 2002). Educator unions and 18 former Departments of Education voted on the following principles after exhaustive deliberation:

- *Transparency principle*: The evaluation process, procedure, and instrument would be disclosed to the educators to be evaluated.
- *Democratic principle*: The members of the evaluation panel would be chosen by educators. Members of the panel will include union representatives, peer educators, and immediate superiors.
- *Openness and fairness principle*: Educators should be evaluated objectively by the panel members. An opportunity will be provided for educators to discuss this issue with the panel members.

Despite the outlined principles, teacher unions and the Department of Education encountered several challenges (Metcalf, 1994). In South African schools, these challenges relate to the roles played by different stakeholders (inspectors, subject advisors, principals, deputy principals, heads of departments, and educators). Upon the establishment of democracy in South Africa in 1994, all 18 former Departments of Education merged into one. Education legislation has been passed by Parliament to address past imbalances, such as the Broad-Based Black Economic Empowerment (BBBEE) and Land Reform, and to demonstrate the new democratic government's commitment to delivering quality education to all South African citizens. Several initiatives have been launched, including the "Back to School Campaign" and the "Culture of

Learning, Teaching and Services" (COLTS). School-based management positions**,** such as department heads, deputy principals, and principals, were created, advertised, and filled in greater numbers. The Education Policy Unit (EPU) of the University of Witwatersrand conducted a pilot study of DAS in almost all the provinces of South Africa in 1995 and 1996 (Middlewood, 1997). DAS's pilot project report from 1997 stated that democracy, transparency, openness and fairness were key components of its success (Middlewood, 1997). The Education Labour Relations Council (ELRC) developed a pilot study report on DAS to identify a course of action. Resolution 4 of 1998, passed on July 28, 1998, pertains to the Developmental Appraisal System (DAS), which was designed to evaluate all educators at all levels of education. The DAS also included personnel employed under the Employment of Educators Act (EEA) No. 76 of 1999, both in schools and in offices. There are four types of school-based educators: educators, department heads, deputy principals, and principals. Education specialists working in the office are classified into three categories: Chief Education Specialists, Deputy Chief Education Specialists, and Education Specialists. The ELRC decided to implement the Whole School Evaluation (WSE) on 10 April 2003. The positive developmental objectives identified in the DAS document were abandoned in favour of a more punitive approach to teacher appraisal. WSE was perceived by SADTU as an extension of such a strategy. The study's primary objective was to determine whether performance management, utilising IQMS as a tool, can enhance the quality and effectiveness of teaching and learning.

The Integrated Quality Management System (IQMS) is a quality and performance management system with three purposes: first, to evaluate individual development and empowerment; second, to effectively measure educator performance and promote accountability; and third, to lead to improvement in the overall effectiveness of the school. Literature has shown that a considerable amount of empirical work has been conducted on IQMS and related issues (Marneweck, 2007; Biputh, 2008; Khumalo, 2008; Letsoalo, 2009; Mesty *et al.*, 2009). The question in the minds of stakeholders is whether these purposes work harmoniously with one another without any conflict of interest. In another study by Whitley (2016) on teachers' perceptions of the implementation of IQMS, a

qualitative study conducted in five schools in South Africa revealed that principals and teachers viewed IQMS as an unreliable system. Whitley (2016) also confirmed that schools are designing and implementing their own appraisal systems to use in conjunction with the IQMS system, aiming to address its shortcomings. If schools design an unofficial assessment system, as alluded to by Whitley (2016), it might result in a teacher assessment system which is uncoordinated and not uniform in South African schools. This article introduces the study, outlining the background of performance management and its transformation towards building a quality and effective educational system in South African schools. It also lays down a roadmap for the development of a holistic performance management system for educators in general, or rather, school management itself, and acts as a valuable tool for reference by both educationists and practitioners investigating a holistic model of performance management systems and their impact on the holistic growth of schools.

1.1.1 Overview of Performance Management

An article on performance management by Waeyenberg *et al.* (2022) argue that performance management should be an ongoing process that facilitates employee performance. There are concerns that this may result in a negative employee experience. It is crucial to have an effective performance management process in the education sector, considering the challenging and demanding nature of the teaching profession. The job demands-resources model and the social exchange theory are used to support our argument that teachers who perceive performance management as a process adhering to the principles of a strong HRM system (i.e. one that communicates distinctively, consistently, and reaches a high level of consensus) will feel more appreciated, valued, and energized, as indicated by a higher level of affective organisational commitment and reduced exhaustion. As a result of their study of 458 Flemish teachers in a school in Northern Belgium, Waeyenberg *et al.* (2022) concluded that the perceived strength of a performance management process correlates negatively with teacher exhaustion, while positively with their performance. Furthermore, the relationship between perceived organisational commitment and teacher performance appeared to be indirect, operating primarily through affective organisational commitment. Moreover, Özgenel *et al.* (2020)

found that school principals' effective leadership qualities are correlated with teachers' performance in a medium-to-positive manner, and that the effective leadership qualities of school principals are significantly associated with teachers' performance.

1.1.2 Performance management in schools in South Africa

Nakidien *et al.* (2021) studied the achievement of *Sustainable Development Goal 4* (SDG4) (United Nations, 2015) in education and highlighted several critical points based on their research in South African schools:

- *Addressing historical inequities*: Achieving SDG4 cannot be separated from addressing the legacies of past political regimes.
- *Teacher empowerment*: The quote from a teacher at Strelitzia High emphasises the need for teachers to be trained to use their influence effectively to promote democracy, citizenship, and social cohesion.
- *Inequality in school capacities*: Schools marginalised during apartheid have not been equally resourced in the post-apartheid era compared to affluent public schools.
- *Content and context in education*: Quality education depends not only on content but also on the context in which teachers work, which shapes their classroom experiences.

Nakidien *et al.*'s (2021) study concludes that the realisation of SDG4 is challenging due to the political, cultural, and social contexts in which teachers operate. Continuous professional development is crucial for delivering high-quality education. Identifying teachers' deficiencies provides a clear direction for targeted interventions. Past qualitative studies on the Integrated Quality Management System (IQMS) by researchers such as De Clerq (2008), Whitley (2016), and Sekgale (2016) have revealed significant flaws in the system. Darling-Hammond (2016) suggests that an ineffective assessment system can be counterproductive, failing to enhance the quality of teaching and learning. Ngakane's (2021) qualitative research involving teachers, heads of departments, and principals in secondary schools in the Ngaka Modiri Molema District, Mafikeng, found that the rebranding of IQMS to the Quality Management Systems (QMS) and Continuous

Professional Teacher Development (CPTD) systems was timely. Participants viewed the original IQMS as outdated and unrealistic. Ngakane recommended that school management teams collaborate with Circuit Managers to monitor the implementation of performance assessments, ensuring quality assurance and providing timely, constructive feedback to stakeholders.

1.2 PROBLEM STATEMENT:

Education is universally recognised as a fundamental human right and cornerstone of sustainable development (UNESCO, 2019). In South Africa, however, systemic inequities and inconsistent quality standards undermine the realisation of this right. The NDP 2030 and Sustainable Development Goal 4 (SDG4) emphasise inclusive and equitable quality education, but the system continues to struggle with apartheid legacies, resource disparities, and inadequate accountability (Nakidien *et al.*, 2021; DBE, 2020). Underperformance, demoralised teachers, and infrastructural deficiencies continue to plague public education, raising concerns about whether Agenda 2063 and SDG 4 can be achieved.

A significant challenge in this regard is the effectiveness of performance management. IQMS and DAS were introduced to align teacher accountability with school improvement (Metcalf, 1994; Whitley, 2016). However, these systems have been criticised for being punitive, outdated, or poorly implemented, leading schools to create parallel informal appraisal systems without uniformity (Whitley, 2016; Ngakane, 2021). Ineffective performance management not only undermines teacher motivation but also fails to improve learning outcomes (Darling-Hammond, 2016). Thus, there is a growing recognition that rebranded systems, such as the Quality Management System (QMS) and CPTD, require stronger monitoring, support, and contextualisation.

Secondary schools in South Africa face a unique set of pressures. In contrast to public institutions, they operate in competitive, market-driven environments where academic excellence, holistic learner development, and financial sustainability are critical to survival (Perpetua Investment Managers, 2023). Despite their better academic results, these schools lack a standardised, evidence-based performance management framework. The

current system is largely based on public sector models that do not adequately address the multidimensional needs of private schools. Waeyenberg *et al.* (2022) remind educators that effective performance management facilitates commitment and reduces teacher exhaustion while fostering organisational commitment. There is currently no unified performance management system for private secondary schools in South Africa that integrates academic outcomes, internal processes, and continuous professional growth.

There is a pressing need for the development and empirical validation of a performance management framework that reflects the operational realities of private education while aligning with global quality standards. The absence of such a model risks fragmenting performance evaluation, reducing accountability, and negatively impacting educational outcomes in a sector that has become increasingly influential in South African education.

1.3 RESEARCH OBJECTIVES

1.3.1 Primary objective

To develop a model to measure and manage the performance of secondary private schools in South Africa.

1.3.2 Secondary objectives

1. Develop a theoretical performance management scorecard for private secondary schools in South Africa (Article 1)
2. Develop a model to measure the performance of private secondary schools in South Africa (Article 2)
3. Empirically validate the theoretical model to measure the performance of a private secondary school in South Africa (Article 3)
4. Confirm the antecedents of the model structurally and measure each antecedent's model fit (Article 4)
5. Develop performance management guidelines to improve schools' performance management in the South African context. (Conclusion and Recommendations) (Chapter 6).

1.4 LITERATURE REVIEW

Performance management in educational institutions has undergone considerable evolution over the past decade, particularly in South Africa, where the education sector confronts unique challenges stemming from historical inequities and contemporary demands for high-quality education. This literature review examines the theoretical and empirical foundations for developing a performance management scorecard for private secondary schools in the eThekwini Municipality, specifically in Durban, with a focus on academic excellence, internal processes, and learning and growth as key dimensions.

1.4.1 The educational context in South Africa

Education is regarded as a fundamental human right, with UNESCO emphasising the importance of making quality education accessible to all (UNESCO, 2022). Education remains a key component of individual and community development as documented in recent literature. The African Union Agenda 2063 promotes sustainable development and inclusive growth, both of which are essential for achieving quality education. A quality education encompasses both the content and delivery methods that yield meaningful learning outcomes.

As South Africa's educational landscape continues to evolve, it struggles to achieve equitable quality education. To promote inclusive, equitable, and quality education, as well as lifelong learning opportunities, the National Development Plan (NDP, 2030) incorporates Sustainable Development Goal 4 (SDG4). However, achieving SDG4 in South Africa cannot be separated from addressing the legacies of past political regimes, as marginalised schools remain underfunded compared to affluent public schools (Nakidien *et al.*, 2021).

1.4.2 Contemporary performance management systems

Performance Management is an ongoing process. Recent research indicates that performance management should be an ongoing process that facilitates employee performance. In view of the demanding nature of the teaching profession, Waeyenberg *et al.* (2022) argue that effective performance management, based on the job demands-

resources model and social exchange theory, is vital in education. Their study of 458 Flemish teachers found that when teachers perceive performance management as adhering to strong HRM system principles, such as communicating distinctively and consistently and achieving high levels of consensus. These teachers experienced a higher level of affective organisational commitment and reduced exhaustion. It has been found that perceived strengths of a performance management process correlate negatively with teacher exhaustion while positively affecting their performance (Waeyenberg *et al.*, 2022).

1.4.3 Current challenges in South African school performance systems

There are still significant challenges facing the South African education system. Various studies indicate that public education is characterised by high costs, poor performance, and teacher shortages. A lack of access to qualified teachers leads to poor student performance and a lack of discipline in the classroom, which is exacerbated by insufficient resources and inadequate infrastructure. As a result of these problems, teachers have become demoralised, and their perceptions of the teaching profession have become more negative.

Several ongoing issues with current performance management systems have been identified in recent qualitative research. According to studies (Ngakane, 2021), the Integrated Quality Management System (IQMS) was rebranded to Quality Management Systems (QMS) and CPTD due to the perception that the original system was outdated and unrealistic. It is recommended that school management teams collaborate with Circuit Managers in monitoring performance assessments, ensuring quality assurance, and providing timely, constructive feedback to stakeholders (Ngakane, 2021).

Performance management in educational institutions has evolved considerably over the past decade, especially in South Africa, where the education sector faces unique challenges arising from historical inequities and contemporary demands for high-quality education. This literature review examines the theoretical and empirical foundations for developing a performance management scorecard for private secondary schools in the

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1.4.5 The private secondary school context

South African secondary schools operate under distinct conditions compared to public schools, including market-driven accountability, varying resource availability, and differing stakeholder expectations. In South African private secondary schools, traditional performance systems represent rigorous, multi-layered approaches driven by market competition and a desire to exceed state minimum standards. Typically, these systems emphasise excellent academic performance through high pass rates and bachelor’s degrees, accompanied by continuous assessment and individualised academic support. In addition to academics, they emphasise holistic development through extracurricular activities and future-ready skills, which are managed through internal accountability cultures and operational metrics, including enrolments and financial sustainability.

1.4.6 Identifying the research gap

This review reveals that there are no comprehensive models that connect the student perspective, internal processes, and learning and growth dimensions for measuring school performance specifically within the context of private secondary schools in South Africa. While international literature offers a range of performance frameworks, South African research has documented challenges with existing public-school systems. However, limited empirical work has developed integrated performance management scorecards tailored specifically to the unique context of private secondary schools in South Africa, particularly in the eThekwini Municipality region.

Given that private schools face different constraints and opportunities than public schools, the gap is particularly significant. The development of a context-specific performance management scorecard could be a valuable tool for school management and governing bodies to improve educational outcomes while maintaining operational sustainability. For such a model to be effective, it would need to incorporate the multiple dimensions identified in recent literature while considering the specific operational context of South African private secondary education.

Finally, a review of contemporary literature suggests that effective school performance management relies on integrating multiple factors: academic excellence, as measured by student outcomes, robust internal processes, including instructional supervision and leadership, and continuous professional development that facilitates ongoing learning and growth. Historical inequities and ongoing systemic challenges contribute to the complexity of the South African context. While significant recent research exists on individual components of school performance, the field lacks comprehensive, validated models specifically designed for private secondary schools in South Africa, presenting an important opportunity for both theoretical and practical contributions to educational management.

1.5 RESEARCH METHODOLOGY

1.5.1 Literature base

The literature review included academic articles, governmental publications, conference proceedings, and acts, among other sources. Several databases were accessed online at the North-West University's library (such as library catalogues, local and international journals, Google Scholar, EBSCO host, Emerald, Psych info, Sabinet and Lexis Nexis).

1.5.2 Traditional Performance Management System in schools

The "traditional performance system" in South African private secondary schools, particularly since 2022, is a rigorous, multi-layered approach driven by market competition and a pursuit of excellence beyond state minimums (Perpetua Investment Managers, 2023; Mamabolo *et al.*, 2024). Its foundation lies in superior academic performance, evidenced by high pass rates and Bachelor's pass achievements, supported by continuous assessment and personalised academic support (Muzanya, 2023). Beyond academics, the system emphasises holistic development through extracurricular activities and future-ready skills, managed by an internal culture of accountability and operational metrics, such as enrolment and financial sustainability (Bisschoff *et al.*, 2025; KZN Department of Education, 2024; Mamabolo *et al.*, 2024). This creates a feedback loop for delivering premium education (Muzanya, 2023).

1.5.3 Epistemology

This study employed an epistemological approach grounded in a positivist paradigm to provide an objective interpretation of events and offer a scientific rationale for its viewpoints. Three fundamental philosophical assumptions define positivism's approach to scientific inquiry (Wati, 2024):

1. As part of its ontological foundation, positivism embraces realism, which posits that reality is composed of distinct events that can be experienced by humans through their senses (Karupiah,2022).
2. There is an objective reality that exists independent of the researcher's perceptions or beliefs (Park *et al.*, 2020). Positivism employs dualistic and objectivist

epistemological frameworks, arguing that researchers and observed reality are distinct entities (Karupiah, 2022).

3. For knowledge to be acquired, it must be value-free and objective, and truth must be static and accessible through empirical observation (Park *et al.*,2020).

In keeping with this epistemological stance, "science is the only valid form of knowledge, and only observable facts can be used for study" (Wati, 2024). According to the positivist paradigm, researchers prioritise observable phenomena that are objectively measurable. The epistemological foundation of objectivism is derived from the observation and measurement of objective reality (Ali, 2024). This approach emphasises the separation between the researcher and the research subject to maintain objectivity. The positivist approach employs systematic hypothesis testing to advance scientific knowledge. Through the accumulation of empirically validated findings, results from hypothesis tests are used to "inform and advance science" (Park *et al.*, 2020).

During the study, all characteristics associated with a positivist paradigm were adhered to. By utilising data to test the hypothesis empirically, objectivity was maintained. Both the researcher and the subjects are independent entities, and their responses were recorded using a reliable and valid research instrument, a questionnaire. Furthermore, it adhered to the norms of a positivist mode of inquiry, including the use of empirical evidence, statistical analysis, generalizable results from large sample sizes, and the identification of causal relationships (Park *et al.*, 2020; Alhoussawi, 2023).

1.5.4 Quantitative data collection

A 5-point Likert scale (where 1 represents "poor performance" and 5 represents "excellent service") was used to collect data through a structured questionnaire. It comprised closed-ended questions. The questionnaire, adapted from previous studies, consisted of two sections: Section A, Demographics, and Section B, Measuring Criteria. Section A consists of three (3) questions designed to establish the demographic profile of the respondents. In Section B, there are four (4) antecedents dealing with school performance constructs, each with unique measurement criteria. The criteria were presented as statements,

requiring respondents to indicate their level of agreement or disagreement on the Likert scale. Section B comprised a total of 62 measurement criteria.

The study's population consisted of all full-time employees (consisting of 900 teachers, principals, school governing board members, and administrative staff) from the 18 secondary private schools in the eThekwini Municipality, in the Durban Metropolitan Area, South Africa. After meeting with the principals and school board members, 12 schools opted to participate in the study. Participants were informed that their participation was voluntary and anonymous. Questionnaires were distributed in hard copy and collected with the assistance of a gatekeeper appointed by the school principals or executive heads. A total of 285 questionnaires were distributed, and 274 respondents returned their completed questionnaires. However, only 244 were usable because of incomplete responses. This resulted in an effective response rate of 89%.

1.5.5 Statistical analysis

Data analysis was conducted using IBM's Statistical Package for the Social Sciences (SPSS), Version 29 (IBM Corp., 2025a), and IBM's AMOS, Version 29 (IBM Corp., 2025b). The final model was created using the statistical program R. In addition to inferential statistics and correlational analysis, exploratory factor analysis was employed to validate and simplify the models, while confirmatory factor analysis was used to determine the models' fit. More specifically, the data were tested for normality (skewness and kurtosis), sample adequacy, sphericity and reliability. The data will be analysed using the following quantitative statistical techniques. Table 1.1 shows the quantitative statistical techniques used to analyse the data, along with their respective decision criteria.

Table 1.1: Statistical techniques employed and decision criteria

Statistical technique	Decision criteria	Substantiating source
Descriptive statistics	***	Field (2017)
Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy	KMO ≥ 0.9 (Excellent) KMO ≥ 0.8 (Very good) KMO ≥ 0.7 (Good) KMO ≥ 0.6 (Acceptable) KMO ≤ 0.6 (Unsatisfactory)	Field (2017); Hair *et al.* (2018) Golafshani (2003)
Bartlett's test of sphericity	$p \leq 0.05$; $p \leq 0.10$	Field (2017) Pallant (2020)
Cronbach alpha reliability coefficients	$\alpha \geq 0.70$ (Reliable) $0.57 \leq \alpha \leq 0.70$ (Acceptable) $\alpha \leq 0.57$ (Not reliable)	Salkind (2000); Cortina (1993); Field (2017)
Exploratory factor analysis (Orthogonal varimax rotation)	Factor loading ≥ 0.40 Variance ≥ 50% (Acceptable) Variance ≥ 60% (Desirable) Eigenvalue ≥ 1	Costello & Osborne (2005); Field (2017); Arbuckle (2021)
Pearson correlation coefficient	$-0.30 \geq p \geq 0.30$; $p \geq 0.05$; 0.10	Tang *et al.* (2003); Field (2017); Pallant (2020)
Model fit (Confirmatory factor analysis)	Significance: $p \leq 0.05$; CMIN/df ≤ 5; CFI ≥ 0.95; NFI ≥ 0.95; RMSEA ≤ 0.08 (or ≤ 0.10)	Arbuckle (2021); Browne & Cudeck (1992); DiStefano & Morgan (2014); Hair *et al.* (2018); Henseler *et al.* (2009); Kumar (2019); Xia & Yang

The statistical analysis decision tree in Figure 1.1 (originally developed by Naidoo, 2011) was used as a guide to adapt and illustrate the interrelationships between the techniques and their chronological order of use.

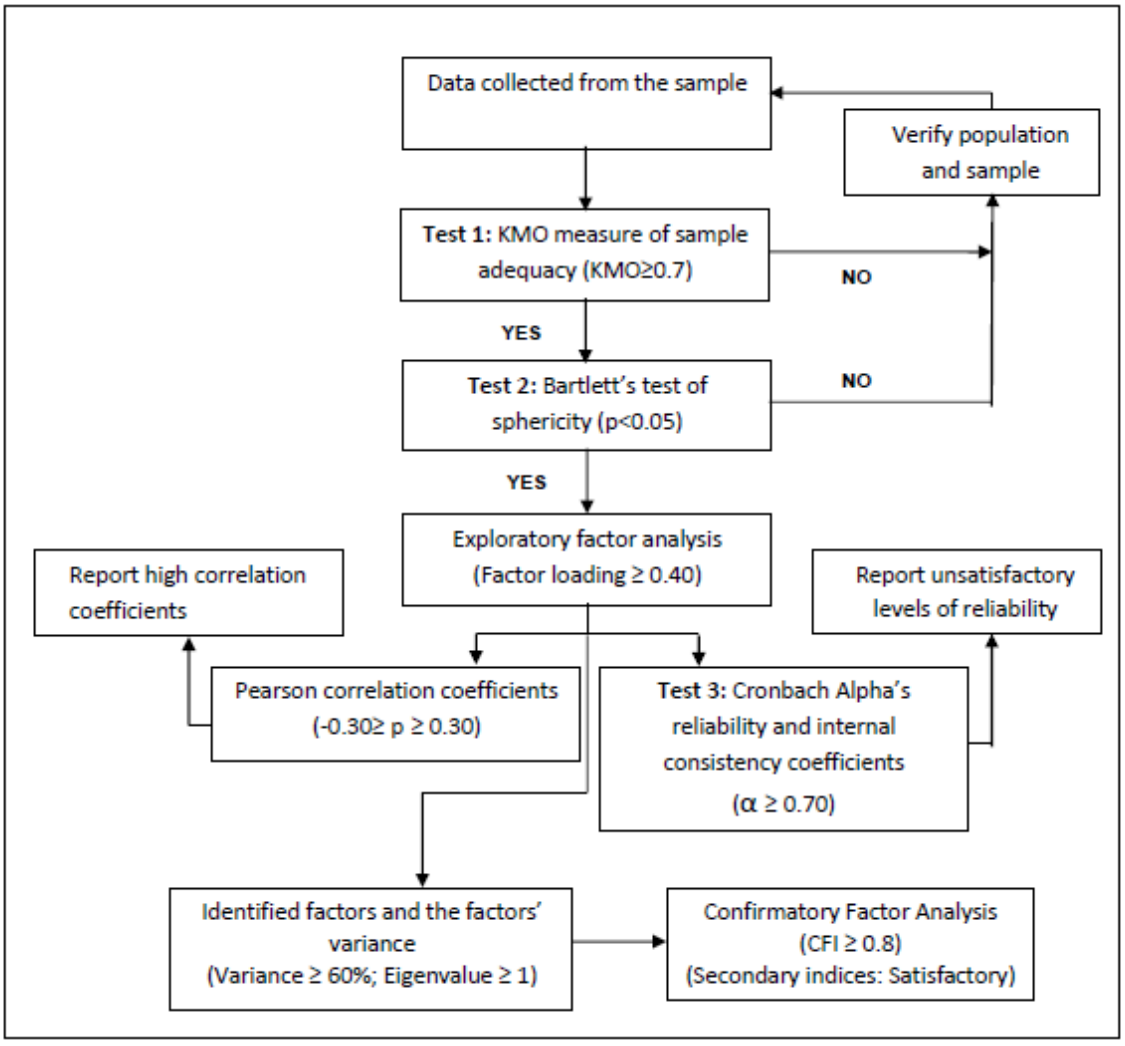

Figure 1.1: Data analysis decision-tree

Sources: Naidoo (2011); Pallant (2020); Bisschoff (2021); Hair *et al.* (2018)

The decision-tree criteria pertaining to the statistics were followed throughout the interpretation of the data in this study. The techniques are discussed in detail below.

1.5.6 Ethical considerations

The study was scientifically approved by the North-West University Scientific and ethically cleared by the North-West University Faculty of Economic and Management Sciences Ethics Committees as a minimal risk study. This committee assigned the formal ethics number NWU-01736-24-A4.

1.6 LAYOUT OF THE STUDY

1.6.1 Approval of the study programme

This doctoral study is structured according to the *North-West University's A-rule 5.2 and 5.10.4.* The faculty relevant rule (EMS 14.1.3) governing these A-rules in the Faculty of Economic and Management Sciences then states that (Buys, 2017):

- "Approval of the study programme and the procedure that must be followed takes place in terms of general rule A.5.2 The study programme must, to the satisfaction of the director of the research entity, contribute to the research programme(s) of the University as determined by the different research entity."
- "For the purposes of a thesis in article format, a minimum of 3 published articles or 3 unpublished manuscripts in article format should be presented."
- "At least one article presented to a subsidy-bearing journal is required before the thesis is handed in for examination as a requirement to obtain a PhD degree (refer A-rule 5.10.4)."

This thesis complies with the A-rules and faculty rules because it comprises four articles (exceeding the requirement of three). Two articles have been submitted to academic journals. One article has been published in the *International Journal of Education*, while the second was accepted for publication in the *Journal of Economic Development, Environment, and People*. (This article is in press.)

1.6.2 Chapter layout of the study

This study is (as per the rules indicated above) done in the article format. This format has specific implications. The four articles follow one another in building towards the final doctoral outcome. Each article is a stand-alone article; hence, it can be published individually. This means that there is some overlap between the articles. For example, in this study, Article 1 develops a conceptual model from the theory. Article 2 then further develops this conceptual model into a measurement model for performance management in private secondary schools. This means that the conceptual model and a brief discussion thereof serve as the starting point for Article 2.

The details of each chapter and the four articles are:

- **Chapter 1: Introduction**. This chapter introduces the research environment and focuses on the problem statement. The primary and secondary objectives are formulated, and the research methodology and statistics employed in this study are discussed.
- **Chapter 2: Article 1**: Develop a theoretical performance management scorecard for private secondary schools in South Africa. The theoretical scorecard in the first article focuses on key performance indicators across academic, holistic, and operational domains. It aims to provide a comprehensive framework for assessing and managing school performance.
- **Chapter 3: Article 2**: Develop a model to measure the performance of private secondary schools in South Africa. The second article focuses on developing a model to measure the performance of private secondary schools in South Africa. It emphasises the identification of traditional appraisal methods and their implications for educators.
- **Chapter 4: Article 3:** Empirically validate the theoretical model to measure the performance of a private secondary school in South Africa. This article examines the various metrics within the model and their impact on the school's overall performance, including that of educators, through a focused study that yields new insights.
- **Chapter 5: Article 4:** Confirm the antecedents of the model structurally and measure each antecedent' model fit. This article ensures that each underlying factor effectively contributes to and supports the overall framework. By considering these factors, the model's fit demonstrates how well it explains the real-world situation being analysed, and whether the model can be operationalised in practice.
- **Chapter 6: Conclusions and recommendations:** This marks the final chapter of the study. The focus of this chapter is on the overall conclusions and recommendations of the study. This chapter summarises the study's main findings, draws conclusions and makes recommendations. The chapter concludes by identifying areas for future research and providing a summary of the final study.

1.7 CONTRIBUTION OF THE STUDY

A variety of private secondary schools exist in South Africa and worldwide, and each has developed its own performance metrics. There has been very little research conducted to determine the factors that contribute to academic achievement in South Africa. The literature identified the antecedents necessary to develop a conceptual model designed to measure performance in private secondary schools in South Africa.

Due to the lack of studies in this regard in South Africa, the literature review, as well as the efforts undertaken in this research study, could provide valuable insights and a basis for proposing a conceptual model to measure school performance in the context of secondary education in private schools within a South African context. The research will contribute to this field of study, adding a limited amount to the body of knowledge regarding business performance. It will focus on developing a model to measure performance in South African private secondary schools. By doing so, the study offers insight into the discourse within education and private secondary schools within the politically charged South African context. Additionally, it provides managerial and business insight to interested stakeholders in South Africa.

1.8 LIMITATIONS OF THE RESEARCH

There is very limited research on measuring performance in private secondary schools in South Africa, making comparisons difficult. The study is limited to 12 institutions in Durban, South Africa. If the study had been conducted in other similar institutions in South Africa and other African countries, the findings would have been enhanced. The study could not exhaust all the literature in the field, as it was focused only on South Africa, which places limitations on comparative purposes.

1.9 SUMMARY

This chapter outlines the study's aims, key research questions, significance, and the research framework for testing performance measures in private secondary schools in South Africa. It is crucial for school principals, school governing board members, school managers, investors, and other stakeholders in private secondary schools to understand the regulatory and business environment in South Africa. This knowledge will enable them

to measure school performance using the proposed performance scorecard. Once these performance measures are understood, they can be applied to develop strategies for achieving desired success and return on investment. This is a complex area of research, and it is hoped that this study will contribute to the body of knowledge, with future research building on these contributions.

The chapter introduces the study and provides an overview of its structure and expected content. It presents the topic of measuring performance in private secondary schools in South Africa, including a perspective on the school regulatory environment and the South African government's plans to address the increased demand for education and training. The study's objectives, relevant scientific techniques, and the layout and format are discussed. Statistical decision-making methods used in the study are also presented, along with the study's limitations.

The next chapter presents the first stand-alone article, which analyses the business environment of private secondary schools in South Africa and proposes a theoretical performance scorecard through a systematic review.

CHAPTER 2: ARTICLE 1

A CONCEPTUAL PAPER TO DEVELOP A STRATEGIC PERFORMANCE SCORECARD FOR PRIVATE SECONDARY SCHOOLS

This article was submitted to the *Journal of Economic Development, Environment & People.* It is a subsidy bearing open access journal indexed by Council for Higher Education. The article has been accepted for publication and is currently in press.

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A CONCEPTUAL PAPER TO DEVELOP A STRATEGIC PERFORMANCE SCORECARD FOR PRIVATE SECONDARY SCHOOLS

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Abstract: Private secondary schools in South Africa face several challenges in measuring their performance. These include the absence of a precise delineation of performance objectives, inadequate monitoring and evaluation systems, restricted use of data-driven decision-making procedures, and a lack of coherence between the school's overarching strategic objectives and daily operational activities. This study uses a conceptual approach to develop a tailor-made performance management scorecard for private secondary schools in South Africa by reviewing 220 published studies. The four key antecedents comprise 1) the student's perspective, 2) academic excellence, 3) learning and growth, and 4) resources. Each antecedent also comprises sub-constructs from which the measuring criteria can be structured. This scorecard is helpful to school managers, school boards, and researchers because it can be used to measure the performance of private secondary schools as a first step toward improving performance management.

Keywords: South Africa, academic, matric, Grade 12, education, learning, improvement.

JEL Codes: I25, O47

INTRODUCTION

South Africa has 24,900 schools, of which 90.8% are public. Likewise, private secondary schools account for less than 10% of all secondary schools (Cowling, 2024). Private schools in South Africa serve affluent and privileged populations, whereas public schools have a greater diversity of racial and economic backgrounds. Private schools have historically served primarily white South African students. However, after apartheid, some private schools experienced an increase in black middle-class enrolment and racial integration. Some common demographic patterns in private schools include higher average family income levels, a higher percentage of English or Afrikaans speakers (compared to the other nine official languages), and some international students from neighbouring countries.

Private urban schools may have greater diversity in South Africa than rural ones. Elite schools can differ significantly in quality from more accessible or affordable private schools and impact demographic trends. Despite English-only rules, students used their home languages informally for problem-solving and social functions. Code-switching is common. Teacher perceptions about home language use were often hostile and unsupportive. No transparent relationships existed between home language use, preference, and student grades. A prior educational background predicted better achievement. The lack of home language support negatively affected learner identities and excluded parents (Pitout *et al.*, 2021).

Between 2008 and 2011, provincial education expenditures on school infrastructure declined in absolute terms and as a percentage of total education expenditures. Additional national grants and funding facilitated a renewed focus on infrastructure investment from 2015 to 2018. Despite this, facility maintenance continues to be severely underfunded across provinces, accounting for less than 1% of infrastructure budgets. As a result, the infrastructure gap widens. Taking classroom facilities, for example, five of the nine South African provinces have more classrooms requiring rehabilitation than the newly constructed ones in 2015-2018. Rural areas are the most affected. A recent

national assessment showed that only 65% of South Africa's public schools have essential water, sanitation, and electricity infrastructure (Marques, 2022).

PROBLEM STATEMENT

Unlike state-funded public schools, private schools compete in the open market for funding. Investors apply financial metrics, such as return on investment, profitability, capital gains, and operating efficiency, before making investment decisions. In this regard, private schools compete against all other industries to secure investments and funds (Bisschoff *et al.*, 2022). In practice, this means that if private schools are not considered worthy investments, investors could instead invest in sectors such as retail, manufacturing, or agribusiness. Therefore, private schools must operate at peak efficiency and be profitable so that they are worthy investment opportunities.

One way to improve operating efficiency is to measure and manage the key performance areas. Although several performance measurement tools exist, most are generic or applied to specific industries. No specific performance measurement tool could be identified to address the needs of private secondary schools specifically. Additionally, no specific tool addresses the unique South African multicultural secondary school environment. Therefore, an educational and managerial gap exists in the performance management of private secondary schools in South Africa (Molefhi, 2016; Holland & Campbell, 2005; Saksono & Bernardus, 2023).

Developing a conceptual scorecard for managing performance can significantly assist managers and the boards of private secondary schools in improving their performance and achieving their financial and operational objectives (Chang *et al.*, 2013; Rompho, 2020).

STUDY OBJECTIVE

This conceptual paper aims to develop a theoretical performance management scorecard for private secondary schools in South Africa.

THEORETICAL OVERVIEW OF PERFORMANCE MANAGEMENT

Defining performance management

Performance management is generally described as an organisational tool that employs a predetermined set of objectives and incentives to measure the performance of team members. Likewise, effective performance management can motivate team members to take ownership of their professional responsibilities. Table 1 illustrates the evolution of performance management since the early 1990s.

Table 1: Performance management as defined since the early 1990s

Year	Definition	Authors
1991	"The development of individuals with competence and commitment, working towards the achievement of shared meaningful objectives within an organisation which supports and encourages their achievement."	Lockett, 1991, p.2
1995	"Performance management is managing the business."	Mohrman and Mohrman, 1995, p.4
1995	"Directing and supporting employees to work as effectively and efficiently as possible following the organisation's needs."	Walters, 1995, p.5
1998	"Performance management is a strategic and integrated approach to delivering sustained success to organisations by improving the performance of the people who work in them and by developing the capabilities of teams and individual contributors."	Armstrong and Baron, 1998, p.2
2022	"Performance management can be defined as a systematic process for improving organisational performance by developing the performance of individuals and teams. It is a means of getting better results from the organisation, teams, and individuals by understanding and managing performance within an	Armstrong, 2022, p.1

	agreed framework of planned goals, standards, and competence requirements.”	
2023	“Performance management is a tool for helping managers monitor and evaluate employees' work. Its goal is to create an environment where people can perform to the best of their abilities and align with the organisation's overall goals”.	Investopedia, 2024, p.1
2023	“Performance includes activities to ensure that goals are consistently being met effectively and efficiently.”	Cambridge Dictionary, p.1

All these definitions stress the significance of coordinating individual and group efforts to achieve organisational objectives. An organisation's success depends on its employees' efforts, and this alignment ensures that those efforts are directed towards the right things. These approaches, from Lockett's "working towards the achievement of shared meaningful objectives" to Armstrong and Baron's "improving the performance of the people who work in them," have the same overarching objective: achieving harmony between individual and organisational objectives. These definitions highlight Performance Management Systems’ (PMS) positive impact on growth and progress. They understand that the purpose of a PMS is not limited to merely monitoring performance levels but also boosting output. Individuals and groups can be trained to perform better by improving their knowledge and abilities and maximising the efficiency and effectiveness of achieving their objectives. Mohrman and Mohrman's claim that PMS is about "managing the business" strategically by integrating processes to guide individuals and teams to achieve their objectives, grow professionally, and maximise the organisation's productivity and success. It is an integral part of the overall strategy and success and a continuous, systematic practice at the individual and team levels.

Jukka (2023) identified positive relationships between the organisation’s Management Control System (MCS) and organisational performance. Jukka’s study showed that in an effective MCS that uses information to assess the performance of an organisation and its (human) resources, managers and leaders better execute and modify organisational

performance and are more likely to achieve the organisation's strategic objectives. The results also suggested that different business strategies yield better performance when aligned with the appropriate management controls represented by an MCS.

Another study by Berchicci (2022) examined whether business cycles influence the relationship between CEOs' overconfidence and performance. They find that expansion periods increase the positive relationship between overconfident CEOs and firms' performance, while recession periods weaken it.

A study of public-private partnerships also found that a PMS enables practitioners to better understand project process performance and then make informed decisions about the required actions to improve future performance. As a result, an organisation needs to compile a "performance framework" to identify its strategically required performance areas. This "list" or "performance framework" is a performance scorecard. Kaplan and Norton (1992) initially developed the balanced scorecard as a generic tool to measure an organisation's performance. This means that the balanced scorecard does not incorporate the uniqueness of educational performance management. As such, a tailored scorecard is needed to manage the performance at private secondary schools (Bos-Nehles *et al.*, 2017; Li *et al.*, 2006; Kao *et al.*, 2024).

The performance management system in the school environment

In schools, teachers and their supervisors traditionally initiate the PMS process by creating performance development plans and annual agreements that outline objectives and targets to be reached. Supervisors check on teachers two to three times a year to assess if they are reaching their performance agreements (Combs *et al.*, 2006; Deci & Ryan, 1985). A Performance-based Reward System is also part of the PMS system. Its objective is to reward good performance. (Aksal *et al.* 2011, Varma and Budhwar, 2023). Although these performance agreement discussions are also part of the public schools' performance management system, these discussions are more aimed at determining what teachers and headmasters do about quality education (in a much higher teacher-

student ratio), sports and extracurricular activities (Holland & Campbell, 2005; Dzimbiri, 2008; Marobela & Andrae-Marobela, 2013; Tan *et al.*, 2024).

The success of a PMS depends on constant feedback, on-the-job training, teacher commitment and motivation. Aslam *et al.* (2011) believe that a PMS system for teachers could improve if teachers were given proper feedback, trained by their supervisors, and participated in planning and performance review meetings (Nxumalo *et al.*, 2018). As such, private secondary schools must establish ways to collect data on teachers' key performance indicators (KPIs) and regularly review and analyse the data to determine their performance. This can be achieved through student tests, surveys, staff and parent feedback, and financial reports (Mothusi, 2008; Poister, 2008). Data analysis involves identifying trends, areas of strength and weakness, and opportunities for improvement. It is important to regularly report on the school's performance and progress toward its objectives, both inside and outside (Holland & Campbell, 2005; Dzimbiri, 2008; Marobela & Andrae-Marobela, 2013; Hart, 2023). Performance measurement metrics and how it is analysed should be consistent to enable year-on-year improvements (Thus, in effect, establishing an annual scorecard).

Based on the scorecard's data, private secondary schools can develop specific performance improvement plans to address problems and capitalise on their strengths. Typical initiatives can include programmes to help teachers improve their skills, support struggling students, implement curriculum changes, enhance teaching methods, and initiate programmes to engage parents more fully and increase their satisfaction with the school (Monnaesi, 2011; Mothusi, 2008; Poister, 2008). Improvement initiatives should align with school objectives and have clear action plans, timelines, and people or teams in charge. Performance management is not a one-time managerial intervention, but an ongoing process focused on continuous improvement. This entails creating a supportive and collaborative environment where feedback is valued and individuals are encouraged to learn from both successes and failures (Boipono *et al.*, 2014; Monnaesi, 2011; Mothusi, 2008; Bergdahl *et al.*, 2020).

The first step in performance management is to properly formulate the school's vision and mission, and then set clear and measurable objectives to bring these dreams to life (Gamble *et al.*, 2024). As such, managers and leaders at private secondary schools must follow suit to ensure that their efforts are directed effectively and that their best resources are employed efficiently. Several studies (Li *et al.*, 2006; Laursen & Foss, 2003; Rompho, 2020) have shown that schools with clear objectives are more likely to act with focus and purpose, leading to better performance results. These studies also show that a structured performance measurement tool, such as a scorecard, provides a detailed picture of the school's performance. This whole-school approach helps schools identify their strengths and weaknesses and make informed decisions to improve performance. Schools that use targeted programmes to fix areas of weakness and build on areas of strength tend to gain significant performance improvements (Laursen & Foss, 2003; Jiménez-Jiménez & Sanz-Valle, 2011; Choirul Amin *et al.*, 2021).

Schools that emphasise continuous improvement and invest in strategic projects demonstrate their commitment to enhancing performance. The results demonstrate the importance of private secondary schools in fostering a culture of continuous improvement (Monnaesi, 2011; Mothusi, 2008; Poister, 2008; Kilag *et al.*, 2024).

The strategic framework helps create a supportive and collaborative environment where feedback is valued, and people are encouraged to learn from their successes and failures. This culture encourages innovation, facilitates learning from one another, and enables schools to respond effectively to changing needs and challenges. The good effects of using a strategic scorecard to manage performance for private secondary schools (Monnaesi, 2011; Mothusi, 2008; Poister, 2008; Jiménez-Jiménez & Sanz-Valle, 2011; Choirul Amin *et al.*, 2021).

Performance management and leadership

A PMS aims to improve employees' productivity by tracking their job performance (Poister, 2003). Other authors opine that performance management is the key process

by which organisations set objectives, determine standards, assign, and evaluate work, and distribute rewards. (Varma and Budhawar, 2023).

A study by Ridwan (2023) on schoolteachers and principals found that teacher performance is not a stand-alone factor. Many factors, such as facilities, training, support, and the school's financial well-being, as well as the community and the neighbourhood, influence it. Regarding the principals, it also includes the school management system established by the school board. Another study on school principal leadership and its influence on teacher professionalism in the learning process in the private Madrasah Aliyah schools in Malaysia revealed that leadership is a determining factor in improving teachers' professionalism, school performance, and a conducive learning process (Warisno & Hidayah, 2022). An intense PMS fosters innovative work behaviour such as high distinctiveness, consistency, and consensus (Bauwens *et al.*, 2023). In public secondary schools in Kenya, Sakwa *et al.* (2023) noted that, more specifically, the principal's reward system was crucial in determining teacher performance; hence, a proper blend of various rewards was urgent to achieve optimal teacher performance. Evidence suggests that strategic leadership, strategic resource allocation, and strategic incentives have a positive and significant impact on the performance of public secondary schools (Nang'ole & Muathe, 2023; Sengendo & Eduan, 2024).

All these studies show that it is beneficial for schools if the leadership know about and implements a PMS. Performance management serves as a viable alternative to the conventional employee evaluation system, enabling managers to evaluate employee performance more comprehensively. A performance management strategy that yields positive outcomes is frequently characterised by its continuous nature (Poister, 2003) because performance management provides team members with numerous opportunities to improve their work performance. Implementing efficient performance management strategies can empower teams, enabling them to collaborate effectively and strive toward achieving both immediate and long-term organisational objectives.
Concerning leadership styles, Garengo and Betto (2022) revealed that the shift from a passive-avoidant to a transactional leadership style supports the implementation of a

PMS. Then, further change from transactional to transformational leadership favours the development of an achievement culture and participative performance management practices. Other studies in leadership by Chughtai and Khan (2024) and Garengo and Betto (2024) confirmed that knowledge-sharing behaviour and work engagement mediate the relationship between knowledge-oriented leadership and employees' innovative performance.

Summary

The literature review shows that a PMS is a viable alternative to managing performance metrics. It includes human resources and extends to various other performance metrics. The various studies also show that performance management comprises several interconnected metrics and criteria. No single metric or criterion can be isolated. Hence, a typical scorecard or conceptual framework is required to measure the performance of private secondary schools.

RESEARCH METHODOLOGY

Research approach

A literature review was conducted to develop a conceptual framework. This approach facilitates a comprehensive analysis of pertinent literature about the subject matter, thereby presenting the opportunity to uncover previously unexplored concepts. Conducting a detailed literature review enhances the rigour and outcomes of the review process using a well-defined and replicable methodology and a comprehensive and impartial search strategy to identify and assess a substantial body of literature (Tranfield *et al.*, 2003; Mulrow, 1994; Menon *et al.*, 2022).

The literature review aimed to develop a strategic conceptual framework for measuring and managing performance in private secondary schools using a scorecard. Initially, 220 literature studies were identified; however, after scrutiny, 43 articles were retained and carefully reviewed to develop the conceptual and strategic framework for managing performance (see Figure 1).

Data collection review process

The primary data sources were Scopus, ISI Web of Knowledge, International Bibliography of Social Sciences (IBSS), and Google Scholar databases. Scopus. IBSS and ISI Web of Knowledge are widely recognised as the most extensive repositories of peer-reviewed journals in the social sciences. At the same time, Google Scholar is renowned for its vast collection of scholarly literature (Jiménez-Jiménez & Sanz-Valle, 2011; Gusenbauer & Haddaway, 2020; Martin-Martin *et al.*, 2021).

In the preliminary investigation, we employed a set of search terms and keywords, both independently and in combination, using the Boolean operators "and" and "or." The specific search terms and keywords used were "Performance management," "Balance Scorecard," "Education," "Private and secondary schools," “Academic excellence” and "Learning and growth."

The articles selected for inclusion in this review had to meet specific criteria. These criteria are: 1) This literature review exclusively included articles published in the past 15 years (Gündüzalp, 2017; Karathanos, 2005; Anastacio, 2016; Yildiz & Esmer, 2023), 2) Articles must be published in peer-reviewed journals with vital impact factors, as these are recognised for providing reliable data and having significant influence in the respective field (Podsakoff *et al.*, 2005; Sarma & Patgiri, 2024), 3) Only English articles were considered, and 4) The articles had to focus on research related to performance management, balanced scorecard education, private and secondary schools, academic excellence, or learning and growth.

The exclusion criteria were: 1) The articles were excluded if they did not match the selected search keywords, and 2) This study focuses solely on private secondary institutions; therefore, articles on elementary schools were not considered.

Data extraction procedure

The first step of the sample analysis was to find any existing data. Abstracts were reviewed to determine if they met the inclusion criteria. The research methodology and the discussion sections will be considered and summarised if the article passes the initial

evaluation. Furthermore, any effects the models could have on the management of performance in private secondary schools were recorded (Atamturk *et al.*, 2011; Gao *et al.*, 2024; Fernandez-Rio & Iglesias, 2024; Wilson *et al.*, 2024). (See Figure 1).

Figure 1: Research methodology flow chart explaining the selection process of articles

(Source: Author's own)

Figure 1 presents a flow chart that visualises the selection process for the articles included in this review. Step 1 involved selecting keywords, including words such as performance management, balanced scorecard, education, private and secondary schools, academic excellence, learning, and growth. After searching for keywords, 220 title abstracts were retained. After considering the absence of an exit relationship between performance management, balanced scorecards, education, and private and secondary schools, 120 articles were selected for further analysis. After further reviewing irrelevant papers on the performance management code card, education, and relations between private and secondary schools, an additional 35 articles were removed. The remaining 43 papers were evaluated by selecting people based on the specified time frame (the last 15 years) to identify the final papers published within the last ten years. Older papers, those older than 15 years, were discarded. The remaining articles were used in the analysis.

Description of the analysis

The population consisted of 220 articles identified by keyword selection. After scrutiny (see Figure 1), 43 articles (19.55%) were suitable for analysis. The definitions of the 43 articles and measurement items were scrutinised to ensure that the included studies used a scorecard or strategic framework to manage performance in private secondary schools (Alolah, 2014; Amin, 2021). The research questions and objectives, the theoretical framework(s) used, the management of performance practices, the sample used, the research design and method, and the main findings were compared. This analysis revealed that the various researchers employed similar strategic frameworks to manage performance.

This inductive approach aimed to identify the best strategic framework for managing performance in private secondary schools (Schobel, 2012; Alolah, 2014; Amin, 2021). The results showed that, although there are similarities, different researchers focused more on specific variables within their strategic frameworks to manage performance. For example, Janssen (2005) and Ramamoorthy *et al.* (2005) discuss performance management, while Fernandez and Moldogaziev (2013) examine learning and growth.

Other authors (Chinpakdee & Gu, 2024; Uy *et al.*, 2024; Kaldes *et al.*, 2024) are also worthy of mention in this context.

RESULTS

Key Performance Indicators (KPIs)

Key Performance Indicators (KPIs) that effectively measure the performance of private secondary schools are paramount in evaluating their efficacy and achievement. These metrics provide valuable insights into various aspects of school performance, enabling school administrators, educators, and stakeholders to make informed decisions that improve the educational experience and overall outcomes for students (Anastacio, 2016; Gündüzalp & Arabac, 2017; Kardianto *et al.*, 2022).

Measuring a private secondary school's success often relies on evaluating its academic performance, a KPI. This indicator includes metrics such as 1) scores on standardised tests, 2) graduation rates, and 3) the proportion of students admitted to private higher secondary schools. High test scores indicate that the institution provides high-quality education, equipping students for future academic endeavours. This evidence suggests that instructional strategies and the overarching pedagogical framework effectively foster student learning and achievement (Karathanos & Karathanos, 2005; Ko *et al.*, 2023). The metrics of student retention and enrolment rates hold significant importance as they serve as key indicators of a school's capacity to sustain a favourable learning environment and effectively address the requirements of its student body. High retention rates indicate a positive correlation between student satisfaction with their educational experience and the support they perceive from the school community. On the contrary, robust enrolment rates indicate that the educational institution is successfully attracting new cohorts of students and garnering recognition for its academic curricula and supplementary activities.

Parent and student satisfaction surveys can serve as valuable KPIs for assessing the overall satisfaction levels of the various stakeholders within the educational institution. Periodic surveys offer parents and students an opportunity to share their perspectives on various aspects of the academic institution, including pedagogical efficacy, infrastructure,

communication, and overall satisfaction (Johanson *et al.*, 2006; Ko *et al.*, 2023; Yuliansingh *et al.*, 2024).

Positive feedback indicates that the educational institution is successfully meeting the expectations of its community, whereas negative feedback can highlight specific areas that require improvement. Measurement of College and Career Readiness is a KPI, particularly in the context of secondary education, as it assesses the effectiveness of educational institutions in equipping students for the challenges they will face after completing their studies. In private secondary schools, inclusion and accomplishments in extracurricular activities are crucial KPIs. The participation of students in extracurricular activities, encompassing sports, arts, clubs, and community service, plays a vital role in fostering their holistic personal and social growth. Monitoring the levels of student engagement and recognising any commendations or honours obtained can indicate the educational institution's dedication to cultivating a comprehensive learning experience and students' abilities beyond academics.

Performance of private secondary schools in terms of identified KPIs

The performance of private secondary schools can be evaluated by utilising diverse KPIs, which offer significant insights into their efficacy and productivity. KPIs discussed here encompass various factors influencing the comprehensive quality of education and the school's ability to fulfil its mission and objectives effectively (Alolah *et al.*, 2014; Amin, 2021). Academic achievement is a KPI that encompasses various metrics, including standardised test scores, graduation rates, and college acceptance rates. Private secondary schools that demonstrate high levels of performance frequently exhibit exceptional performance in these domains, as they prioritise the implementation of demanding curricula, employ highly competent teaching personnel, and provide individualised support to address the unique learning requirements of their students.

A school that consistently demonstrates high academic achievement indicators is likely to be perceived as successful in effectively fulfilling its primary function of delivering a

high standard of education to its students (Brown & Wohlstetter, 2006; Rahayu *et al.*, 2023).

The student-teacher ratio is an additional KPI that is very important. A commonly observed correlation exists between reduced class sizes in private secondary schools and improved student participation and academic achievement levels. Schools that maintain reduced learners-to-teacher ratios can provide enhanced individualised instruction and dedicated focus to each student, thereby cultivating an environment conducive to effective learning (Schobel & Scholey, 2012; Amin, 2021; Brown & Wohlstetter, 2009; Mubonenwa, 2019).

In addition, educational institutions of this nature can recognise and confront academic obstacles early, potentially resulting in enhanced academic outcomes. Furthermore, academic pursuits, extracurricular activities, and the accessibility of diverse programs also influence a school's performance. Private secondary schools that offer diverse extracurricular activities, encompassing sports, arts, music, and community service, are important in fostering students' comprehensive growth and development (Siburian & Pangaribuan, 2020). Engagement in extracurricular activities enhances students' aptitudes and talents, fostering teamwork, leadership, and time management skills that are crucial for their holistic development and future achievements.

The holistic school environment and culture are KPIs that significantly influence students' experiences and outcomes. A positive and inclusive environment can enhance student engagement and motivation, fostering a sense of belonging. Educational institutions that cultivate a secure, considerate, and nurturing ambience cultivate a setting conducive to academic growth and individual advancement. Financial stability and efficient resource management are KPIs that are of utmost importance (Amin, 2021; Liang, 2012; Brown & Wohlstetter, 2009; Rompho, 2020). Private secondary schools must prioritise effective financial management to uphold education standards and sustain the necessary infrastructure and resources. Schools that adopt sustainable financial practices can allocate resources toward teacher professional development, technological

advancements, and contemporary instructional materials, thereby augmenting the overall quality of the learning environment.

The Theoretical School Performance Scorecard

The study considered 71 qualitative, 62 quantitative, four mixed-method and two generically researched articles. Eventually, 43 of these articles were systematically reviewed (25 quantitative and 28 qualitative studies) to identify relevant variables and inter-relationships between the variables to develop a theoretical model to measure and manage performance management in private schools in South Africa. In particular, the systematic review identified four perspectives central to private school performance. They are 1) *The Student Perspective, 2) Internal Processes for Academic Excellence, 3) A Learning and Growth Perspective*, and 4) *Resource Perspective*. These perspectives comprise sub-constructs, while the two sub-constructs of the *Learning and Growth Perspective* comprise further variables. Figure 2 graphically displays the results of A systematic theoretical analysis in a theoretical school performance scorecard model.

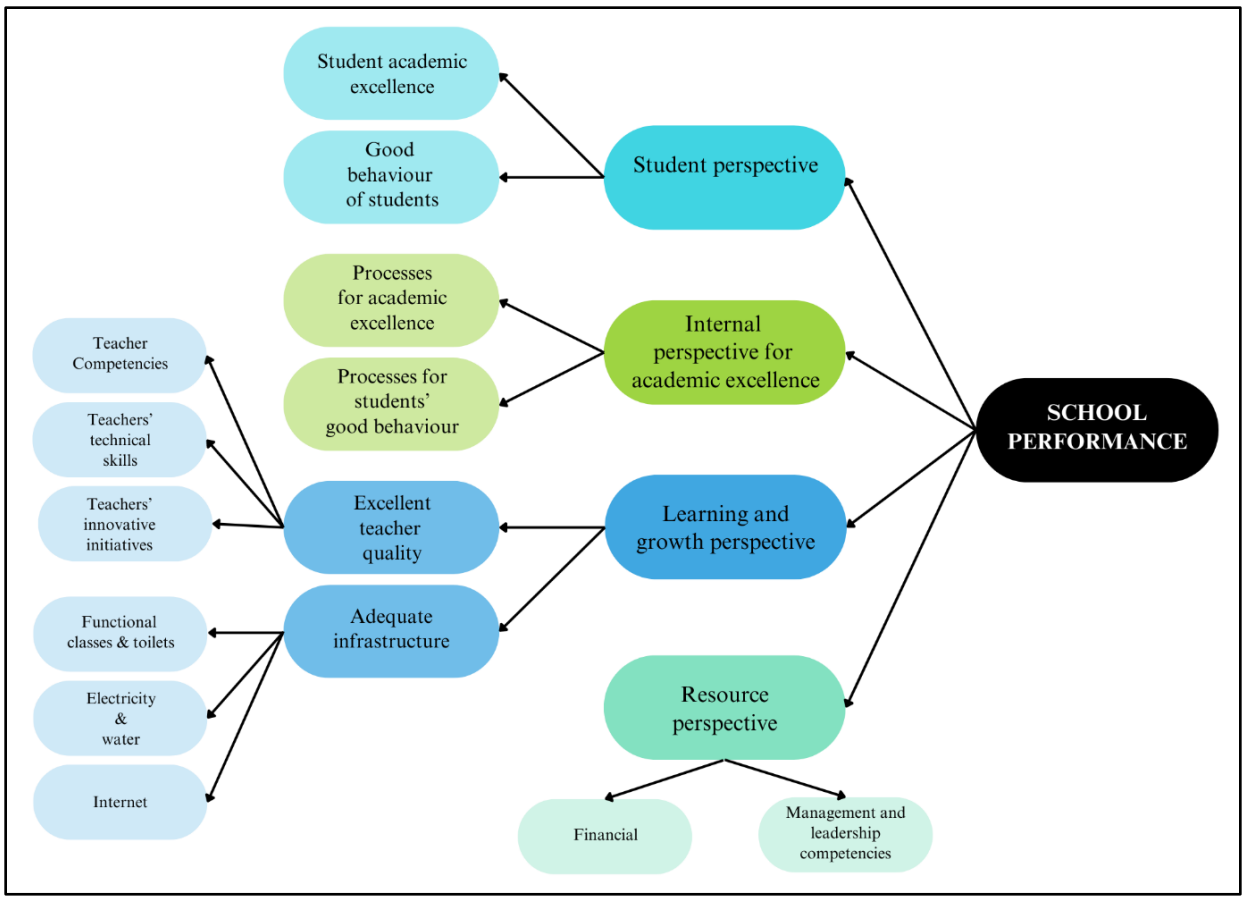

Figure 2: Theoretical School Performance Scorecard

(Source: Author's own)

DISCUSSION

Theoretical implications

Using a scorecard as a strategic framework for performance management in private secondary schools within South Africa has significant theoretical implications that may substantially influence the educational domain. A significant theoretical implication is related to the congruence between objectives and outcomes (Siburian & Pangaribuan, 2020). Implementing a scorecard enables educational institutions to effectively delineate their strategic objectives and desired outcomes according to the municipality's overarching educational mission. Establishing this alignment facilitates a unified approach to education, encouraging uniformity and collaboration among educational institutions and enhancing educational outcomes (Alolah, 2014; Amin, 2021; Brown & Wohlstetter, 2009). Another noteworthy theoretical implication pertains to prioritising

decision-making based on empirical data. The scorecard approach is based on systematically gathering and examining pertinent data to evaluate the performance of educational institutions. The data-driven decision-making process empowers educational institutions to identify both areas of proficiency and deficiency more precisely, thus facilitating the implementation of focused interventions and the allocation of resources (Gusnardi, 2019; Hasan & Chyi, 2017; Soderberg, 2011; Saksono & Bernardus, 2023; Hanushek *et al.*, 2023). Furthermore, this approach promotes a culture of responsibility and openness, as educational institutions must justify their achievements based on predetermined criteria and exhibit ongoing improvement.

The strategic framework also integrates the notion of a balanced scorecard, which encompasses various dimensions of school performance that extend beyond the sole academic accomplishments. A scorecard offers a more comprehensive assessment of a school's effectiveness by considering various perspectives, including student satisfaction, teacher development, and community engagement (Bremser & White, 2000; Siburian & Pangaribuan, 2020). This approach, characterised based on its equilibrium, is supported by contemporary educational theories that underscore the importance of comprehensive growth and equipping students for the challenges they may encounter outside the academic realm. Furthermore, the strategic framework fosters a culture of learning and innovation within educational institutions. To achieve established performance objectives, educational institutions can explore novel pedagogical approaches, curriculum advancements, and systems to support students (Dariyo *et al.*, 2022). The prevalence of an innovative culture can yield widespread benefits, extending beyond individual students to encompass the larger educational community through the dissemination and adoption of successful practices.

Practical implications

Implementing a strategic framework for performance management, specifically using a scorecard, in private secondary schools in South Africa can yield noteworthy practical implications (Pereira & Filipe Melo, 2012; Dario & Turmanggor, 2024). The proposed methodology involves the development of a comprehensive and equitable performance

management framework based on the educational institution's overarching vision and objectives. Enhanced objective alignment is a key practical implication of implementing this strategic framework. A scorecard facilitates the establishment of explicit and quantifiable objectives for private secondary schools based on their mission and long-term vision. By disseminating these objectives to individual teachers and staff members, a more comprehensive understanding is achieved regarding the extent to which everyone's role contributes to the overall achievement of the educational institution (Williams, 2010; Hasan & Chyi, 2017; Soderberg, 2011; Yuliansingh *et al.*, 2024).

This alignment cultivates a sense of purpose and incentivises stakeholders to collaborate effectively towards common objectives. Using a scorecard in school performance management has a practical implication in the form of a data-driven decision-making process. Once the framework has been established, educational institutions can gather and evaluate pertinent data, including academic achievements, student attendance records, teacher evaluations, and allocation of resources (Storey, 2002; Soderberg, 2011; Coşkun & Nizaeva, 2023). A data-driven approach enables school administrators to make well-informed decisions grounded in empirical evidence rather than relying on intuition or assumptions. This tool enables the discernment of positive attributes and areas for improvement within the educational institution, allowing for prompt modifications to strategies and interventions to enhance overall performance.

In addition, a scorecard offers a structured approach to monitoring and assessing progress over time. Stakeholders can consistently evaluate their performance by establishing KPI and corresponding targets for every facet of the educational institution's functioning (Hasan & Chyi, 2017; Soderberg, 2011; Nugraha, 2020). The continuous monitoring process allows educational institutions to promptly detect potential concerns, facilitating timely resolution of issues before they become more severe. Furthermore, this practice fosters a climate of responsibility and ongoing improvement since educational professionals and administrators comprehensively comprehend their anticipated levels of achievement and can proactively implement measures to achieve or surpass them.

LIMITATIONS

Firstly, it is essential to note that the narrow emphasis on private secondary schools within South Africa could limit the generalizability of the results. Private schools often exhibit unique attributes and possess resources that may not be indicative of the broader educational environment. Therefore, it is essential to exercise caution when implementing the strategic framework developed in this study in diverse contexts, such as public schools or those in different regions, as its applicability may be uncertain (Ovando & Ramirez, 2007; Lipe & Salterio, 2000; Rotaru *et al.*, 2020).

Furthermore, the use of a quantitative methodology is accompanied by inherent limitations. Although quantitative research offers valuable numerical data and statistical analysis, it may not comprehensively capture the intricate complexities and nuances inherent in the educational environment (Nørreklit, 2003; Henson *et al*., 2020; Frisby, 2024).

Due to the study's predominant reliance on numerical data and metrics, certain crucial elements of school performance, such as qualitative evaluations of teaching quality, student engagement, and school culture, may need to be considered or examined more thoroughly. In addition, it is essential to note that the study's use of historical data for performance evaluation may introduce potential biases. Performance metrics derived from historical data may not fully account for the impact of dynamic circumstances or evolving challenges that educational institutions may face (Yüksel & Coşkun, 2013; Coşkun *et al.*, 2023).

A more comprehensive examination could involve integrating longitudinal data or qualitative evaluations to complement the quantitative results, thus offering a more comprehensive comprehension of school performance and the efficacy of the proposed framework. This constraint is related to the data collection. If the data needs to be updated or modernised to incorporate new research, the inferences derived from this study can be confirmed, updated, or even revised (De Oliveira *et al.*, 2020; De Jesus Alvares Mendes Junior & Alves, 2023). Furthermore, researchers must consider potential biases

that may arise during the data collection process, particularly when data is obtained from specific sources or stakeholders who may have vested interests in the study's anticipated results.

FURTHER THEORETICAL SUPPORT FOR THE SCORECARD

The research by Rompho (2020) found strong evidence supporting the use of a scorecard to measure educational performance. Although the Balanced Scorecard by Kaplan and Norton is not ideally suited for education, the principle of adapting and applying a scorecard to schools is sound. A school that consistently demonstrates high academic achievement indicators is likely to be perceived as successful in delivering a high standard of education to its students (Brown & Wohlstetter, 2006; Rahayu *et al.*, 2023). This improves stakeholder satisfaction and positively impacts school performance in terms of growth, financial stability, reputation, and enrollment numbers (Rompho, 2020). Regarding the Good behaviour of students, Saksono and Bernardus (2023) found that students need to develop good character and spirituality (well-being education) and reflect it in their daily attitude at school. Similarly, good academic outputs increase parent satisfaction (Wei & Ni, 2023). This will lead to greater involvement and engagement among parents, ultimately improving their satisfaction (Wei & Ni, 2023), which in turn will contribute to reputation and revenue growth for schools. It was found that school attributes are essential in determining parents' contentment with public primary school services. Parents become dissatisfied when their children do not receive good services and may react by withdrawing them from one school to another in search of better opportunities. This implies that parents' continued dissatisfaction with services will lead to a decline in future enrollment figures in public primary schools unless action is taken promptly (Chuktu *et al.*, 2024).

Supportive research by Kristanti *et al.* (2024) highlights the importance of synergy between schools and parents in influencing students' academic achievement and character development. Another study by Dariyo et al. (2022) found that innovations in schoolteachers lead to greater stakeholder satisfaction and have a positive impact on academic excellence. Another study by Sengendo and Eduan (2024) revealed the importance of transformational leadership in schools as a significant predictor of

academic influence through idealised influence, intellectual stimulation, and individualised consideration. Tan and Walker (2024) found that school leadership practices were significantly associated with student academic achievement. An earlier study by Aninsingh *et al.* (2022) identified character education as a significant predictor of academic success, enhancing the importance of the 'Internal Process for Good behaviour' parameter in a school scenario. Other leadership practices, such as distributed leadership and diverse leadership styles, have been shown to significantly improve learner outcomes (Jambo & Hodge, 2019; Maqbool *et al.*, 2023). Gningue *et al.* (2022) find a positive relationship between teacher leadership and school climate, which significantly impacts the internal processes in a school setting.

The Internal Perspective for Academic Excellence comprises two sub-perspectives: the Processes for Academic Excellence and the Processes facilitating Good behaviour of students. In the context of the internal process for academic excellence, Saksono and Bernardus (2023) stated that it is essential for a school to create higher employee (teachers and staff) satisfaction in schools using a scorecard, which was used as a strategic framework for a holistic evaluation. Another vital parameter considered in the Internal Perspective for Academic Excellence is the number of qualified pass-outs in a National-level Certification examination (e.g., Grade 12) expressed as a percentage of the number of students excelling in matric to the total number of students. Dariyo *et al.* (2022) also noted that innovations in facilities and infrastructure lead to greater stakeholder satisfaction. Other elements that significantly impacted the Internal Perspective for Good Behaviour include the percentage of public participants involved in budget preparation and the number of community activities (Rompho, 2020). The third perspective deals with learning and growth, which includes Excellent teacher quality and Adequate infrastructure. Indicators subscribing to Learning and growth are Innovation initiatives (measured by the number of innovation proposals) and Teacher competencies (measured by the number of teachers completing professional development to the total number of teachers in a school). Other studies have also found strong evidence that teacher training, particularly technical training (Learning and growth parameter), positively impacts job performance and enhances academic excellence, creating value

for stakeholders in the process (Ogunbayo & Mhalanga, 2022). From a Learning and Growth Perspective, the Quality of teachers is the main driver.

An adequate infrastructure encompasses basic structural elements, such as functional classrooms and water closet facilities, a stable electricity and water supply, internet connectivity, and computers. Learning and growth, as well as a Resource perspective, drive Internal processes. The perspectives are also interrelated. Sufficient resources attract and support good teachers. At the same time, good teachers attract good school resources (Rompho, 2020). Finally, from the resource's perspective, financial, leadership, and management resources are essential in any school's performance.

FUTURE RESEARCH

This article employed a systematic literature review to identify relevant antecedents for measuring school performance. In doing so, the literature study developed a theoretical framework to serve as a scorecard in secondary schools. However, this framework needs to be developed further by: 1) developing specific measuring criteria for each identified antecedent, 2) empirically validating the antecedents, measuring criteria, and the scorecard, and 3) measuring the performance of schools using the scorecard.

SUMMARY

This article used a systematic literature review to develop a framework (or scorecard) to measure the performance of schools in the eThekwini district of KwaZulu-Natal in Durban, South Africa. After identifying 220 relevant articles, closer scrutiny reduced the number to the first 120 and then to 43. These 43 articles were used to develop the antecedents of the theoretical framework that can be used as a scorecard to measure secondary school performance. The results are novel and unique, highlighting the importance of using a structured framework for performance management. The results also provide a basis for the empirical development of a management and consulting tool for the basic education sector.

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CHAPTER 3: ARTICLE 2

A CONCEPTUAL SCORECARD TO MEASURE THE PERFORMANCE OF PRIVATE SECONDARY SCHOOLS

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A CONCEPTUAL SCORECARD TO MEASURE THE PERFORMANCE OF PRIVATE SECONDARY SCHOOLS

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ABSTRACT: This study aims to develop a performance measurement scorecard based on the results from a systematic theoretical review of secondary private schools' performance. The systematic literature review identified four core performance measurement antecedents, namely, the Student Perspective, Internal Processes for Academic Excellence, the Learning and Growth Perspective, and the Resources Perspective, as well as several sub-antecedents. The literature review examines these antecedents and expands on them to develop measurement criteria. In essence, this article then develops a tool to measure the active performance of private secondary schools. Although numerous performance measuring instruments exist, none could be located to measure performance at secondary private schools in South Africa. The results show that developing a performance scorecard to measure private secondary schools was possible. The article contributes by developing a closed-ended questionnaire using a 5-point Likert scale to measure the performance of private secondary schools. Future research for the scorecard dictates the empirical validation of the measuring instrument.

KEYWORDS: Model. Productivity. Review. South Africa. Success. Systematic

JEL Code: I25, O47

INTRODUCTION

Education is a fundamental human right. As such, every child deserves access to a quality education (UNICEF 2025). The United Nations Educational, Scientific and Cultural Organisation and the United Nations Sustainability Goal 4 (to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all) support this view (UNESCO 2025; UN 2024; UNESCO 2019). Likewise, Onuora-Oguno *et al.* (2018) attest that education is essential for individual and social development. At the continental level, the Continental Education Strategy for Africa, Vision 2016-2025, emphasises the need to reorient Africa's education and training to develop the knowledge, competencies, skills, and creativity necessary to nurture Africa's core values. The African Union Agenda 2063 demands sustainable development and inclusive growth. However, Onuora-Oguno *et al.* (2018) argue that quality education cannot be achieved. This scenario is reflected in the United Nations Children's Fund (UNICEF) statement, which contemplates that quality education is the cornerstone of sustainable development (Ferguson *et al.* 2019). Quality education is also recognised as one of the six fundamental goals approved by the International Declaration on Human Rights.

As defined by Ferguson *et al.* (2019), quality education encompasses not only the content but also the delivery techniques that lead to the desired learning outcomes. In line with the *Agenda 2063 in Education*, the South African government has launched the National Development Plan (National Planning Commission or NPC 2017) 2030 and formulated the Sustainable Development Goal (SDG4) on inclusive, equitable quality education and promoting lifelong learning opportunities for all (NDP 2030). An environmental scanning study during COVID-19 by the Department of Basic Education (DBE 2020) has identified a pressing need for enhanced accountability within the school system to improve learning during the pandemic. These calls for accountability are supported by recent studies (Levatino *et al.* 2024).

Furthermore, DBE's (2020) annual performance plan for 2020-2021 asserts that effective teaching is precious in overcoming the effects of COVID-19 in the education sector and the country at large. They specified that, among other classroom factors, the teachers' capabilities strongly influence learners' chances of learning. The DBE's assertions link well with the NDP Vision 2030, which calls for equitable quality teaching and learning.

OBJECTIVES

The primary objective of the study is to develop a model for measuring the performance of private secondary schools in South Africa.

The following secondary objectives served the primary objective:

1. Identify performance antecedents from a systematic literature review
2. Develop relevant measuring criteria for each antecedent
3. Apply the antecedents and measuring criteria in a measuring model
4. Develop a measuring instrument (questionnaire) to administer in measuring schools' performance

THE THEORETICAL SCHOOL PERFORMANCE SCORECARD

The theoretical basis comprises the scorecard developed by Nag et al. (2024) for the private secondary school. These authors used a systematic review to identify four antecedents to measure performance. These antecedents are the Student Perspective, the Internal Processes for Academic Excellence, the Learning and Growth Perspective, and the *Resources Perspective*. Three of the four antecedents (except the Resource Perspective) comprise several sub-constructs. Figure 1 shows the theoretical scorecard.

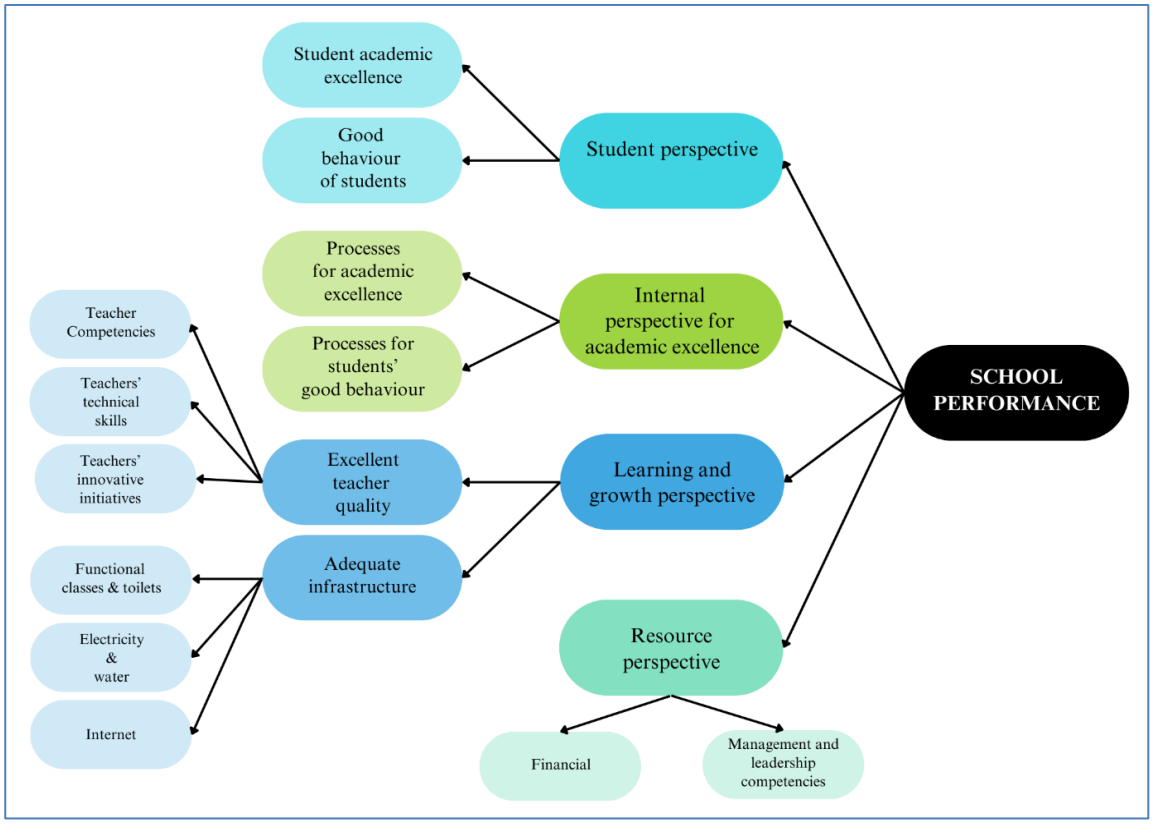

Figure 1: **Antecedents of a theoretical performance scorecard**

(Source: Researchers' own creation)

The antecedent *Student Perspective* comprises two sub-antecedents. The sub-antecedents include *Student Academic Excellence,* which is measured by criteria such as the results in the *National Examination (Grade 12/Matric)*, *school completion rate*, *knowledge seeking skills and outcomes*, and *capability to integrate knowledge* (Sengendo and Eduan 2024; Tan and Walker 2024; Maqbool *et al.* 2023; Rompho 2020). The second sub-antecedent is *Good behaviour of students*, measured by criteria like *attendance, discipline, characteristics, value, characteristics and behaviour,* and *school* expulsion rates (Onyinye and Tyough 2024; Wei and Ni 2023; Aninsingh 2022; Fomba *et al.* 2023; Rompho 2020).

The antecedent *Internal Perspective for Academic Excellence* also comprises two sub-antecedents. They are the processes that facilitate academic excellence and good student behaviour. Saksono and Bernardus (2023) contextualise the internal process for academic excellence by stating that it is essential for a school to create higher employee (teachers and staff) satisfaction in schools using a quantitative scorecard as a strategic framework for a holistic evaluation. Focusing on an Internal perspective on good behaviour contributes to the establishment of an environment conducive to fostering good behaviour, which culminates in a nurturing environment where students are taught the nuances of good behaviour and are assessed through criteria such *as ethics teaching*, *school climate*, *parent-teacher involvement,* and *character education* (Fomba *et al.* 2023; Gningue *et al.* 2022; Amin 2021; Rompho 2020). Another vital parameter in the Internal Academic Excellence perspective is the qualified pass-out rates in a National-level Certification examination (Grade 12) and the ratio of students excelling in Grade 12 compared to those who do not. Dariyo *et al.* (2022) also noted that innovations in facilities and infrastructure lead to greater stakeholder satisfaction. These attributes contribute to the vibrant learning process by enhancing academic achievement (Uy *et al.* 2024; Saksono and Bernardus 2023; Wei and Ni 2023; Fomba *et al.* 2023; Gningue *et al.* 2022; Amin 2021). Other elements that significantly impacted the *Internal Perspective for good behaviour* are the percentage of public participants participating in the budget preparation and the number of community activities (Rompho 2020).

The third antecedent deals with *Learning and Growth.* This antecedent includes excellent teacher quality and adequate infrastructure. Indicators related to Learning and growth include innovation *initiatives* (measured by the number of innovation proposals) and *teacher competencies* (measured by the number of teachers completing professional development

(CPD), divided by the total number of teachers in a school). Research by Ogunbayo and Mhlanga (2022) also found strong evidence that teacher training, particularly technical training (regarding the Learning and Growth antecedent), positively impacts job performance and enhances academic excellence, creating value for stakeholders. The authors emphasised that the quality of teachers is a primary driver for learning and growth. Likewise, an adequate infrastructure encompasses basic structural elements such as functional classrooms and water closet facilities, a stable electricity and water supply, internet connectivity, and computers. Quality of infrastructure is measured by factors such as functional classrooms, sanitation facilities, playgrounds, internet connectivity, and playgrounds (Pantic and Hamilton 2024; Nwile and Taminodiepreye 2022; Ojuok *et al.* 2020; Siburian and Pangaribuan 2020).

The fourth antecedent relates to *Resources* (such as financial, managerial and leadership resources). Finally, from the resource's perspective, financial, leadership, and management resources are essential in any school's performance. The financial perspective can further be deconstructed into sub-variables such as *financial sustainability* (net operating cash flow or revenue), *enhancement* (revenue realisation, account receivables, collectability), *cost efficiency* (cost realisation, cost per student, budgeting for facilities and infrastructure that support improving the quality of education), *economical* (spending the funds received according to the planned expenditures), *efficiency* (income budget allocation) and so on (Sengendo and Eduan 2024; Tan and Walker 2024; Uy *et al.* 2024; Maqbool *et al.* 2023; Enache *et al.* 2021; Nxumalo *et al.* 2018). Regarding *Management and Leadership competencies*, school leadership competencies include the leadership styles of principals (strategic/cultural), transformational leadership of the headmaster (which encompasses aspects such as idealised influence, motivation, and stimulation), principal supervision and its impact on teachers (Sengendo and Eduan 2024; Tan and Walker 2024; Uy *et al.* 2024; Maqbool *et al.* 2023).

It is noteworthy that the four antecedents (and sub-antecedents) are interrelated. For example, *Learning and Growth* and *Resources* drive internal processes. Sufficient resources attract and support good teachers, and good teachers attract good school resources (Rompho 2020). Students also thrive in well-resourced environments and show more respect and care better for good facilities (Tan and Walker 2024).

PROBLEM STATEMENT

Nag *et al.* (2024) identified 220 relevant studies published since 2010 that specifically addressed teacher or educator performance (e.g., Msosa, 2020). This researcher focused mainly on analysing the changes in the rate of teacher absenteeism among South African provinces as a major in-class factor contributing to student performance and effective learning. In another study by Jonas (2011), a scorecard was built to monitor and evaluate the governance of special schools in the Northern Cape. This study focused mainly on the governance of these schools. Rompho (2020) attempted to comprehensively develop a scorecard for Thai public schools, which revealed a direct correlation between the different measurement matrices of the scorecard. In contrast, a study by Amin (2021) focused on measuring performance in Islamic Primary Schools using a Balanced Scorecard. Siburian and Pangaribuan (2020) were developed to effectively measure performance outcomes in North Sumatra and enhance performance using tools like the Balanced Scorecard. Gningue *et al.* (2022) examined the relationship between school climate and teacher leadership development.

However, none of these studies specifically focus on the challenges of private secondary schools in South Africa. International performance measures lack cultural and African insight and are incomplete for measuring the performance of South African private schools. Managing schools' performance is problematic for principals and school boards. Although there are regulated agreements among board members and principals regarding the specific performance criteria in the public school management system, this is not the case in private schools. There are disagreements about which criteria require performance management in private schools and what the role is in each case. For example, some members focus strongly on academic performance criteria, while others feel that sports should play a more prominent role due to their marketing value in a private school. Private schools compete in the open market for top pupils against one another, as well as against public schools. As such, private school management must identify the "right" performance criteria and measure these criteria regularly to ensure their managerial actions yield the desired returns. This is problematic because no South African private school performance scorecard could be located that is suitable for use. This study aims to develop such a managerial performance scorecard for private schools in the country.

RESEARCH METHODOLOGY

This study builds upon an extensive thematic review of the literature. Based on the traditional balanced scorecard developed by Kaplan and Norton (1992), Nag *et al.* (2024) identified several antecedents and sub-antecedents to measure the performance of private secondary schools. This study theoretically investigates each antecedent and sub-antecedent, aiming to develop relevant measuring criteria to operationalise the scorecard. In addition to the literature survey conducted so far, the authors have developed a research instrument (a questionnaire) to collect data from various stakeholders in a school setting.

DATA COLLECTION

The databases of Scopus, International Bibliography of Social Sciences (IBSS), ISI Web of Science and Google Scholar served as primary data sources. The libraries of North-West University and Mancosa assisted in identifying relevant articles using keywords such as 'performance management', 'Balance Scorecard', 'education', 'private and secondary schools', 'academic excellence', and 'learning and growth'. The keywords were independently used and in combination using the Boolean operators 'and' and 'or' (Martin *et al.* 2021; Gusenbauer and Haddaway 2020; Jiménez-Jiménez and Sanz-Valle 2011).

The inclusion criteria for articles to meet specific criteria were that no articles older than 15 years were considered (Yildiz and Esmer 2023; Gündüzalp and Arabaci 2017; Anastacio 2016; Karathanos and Karathanos 2005), articles must have been published in renowned peer-reviewed journals with satisfactory impact factors (>1) (Sarma and Patgiri 2024), journals must be relevant to the field of study (that is, education) (Sarma and Patgiri 2024; Podsakoff *et al.* 2005), only English articles were considered, and the article's core focus must relate to performance management, balanced scorecard in education, private and secondary schools, academic excellence, or learning and growth.

On the other hand, the exclusion criteria eliminated articles that did not match the selected search keywords, articles on elementary or primary schools, and articles that focused on public schools.

ARTICLE SELECTION PROCEDURE

Initially, 220 articles were selected for scrutiny. Of these, 19.55% (43) were finally selected and analysed. Figure 2 illustrates the six steps involved in filtering the articles.

Figure 2: Flowchart explaining the selection process of articles

(Source: Researchers' own creation)

RESULTS

The results, firstly, show that, as indicated in Figure 2, four antecedents could be identified to measure the performance of private higher secondary schools. They are the Student Perspective (comprising two sub-antecedents Student's Academic Excellence and Good behaviour of students), the Internal Perspective for Academic Excellence (comprising two sub-antecedents Processes for Academic Excellence and Perspectives of Good Behaviour), the Learning and Growth Perspective (comprising two sub-antecedents Adequate infrastructure and Excellent teacher quality, and Resources (also comprising two sub-antecedents Management and leadership Competencies and Financial Perspectives). These results have been tabulated in Table 1.

The results, secondly, identified measuring criteria for each antecedent and sub-antecedent from the systematic literature review of the selected 43 studies. Table 1 shows each antecedent and sub-antecedent and their respective measuring criteria. It also shows the respective studies about each antecedent's measuring criterion.

Thirdly, the results also culminated in a questionnaire that can be used to measure the antecedents and sub-antecedents of private secondary school performance. The detailed questions are shown in Appendix A. This theoretically grounded questionnaire needs to be empirically validated before it can be operationalised on a wider scale.

DISCUSSION

This study presents a tailor-made scorecard to measure the performance of secondary private schools. Although Rompho's (2020) study found strong evidence for using scorecards in education, a balanced scorecard for schools is not ideally suited to the Balanced Scorecard framework by Kaplan and Norton (1992); however, the principle remains sound. According to the National Library of Medicine (NLM), schools that consistently achieve high academic achievement indicators are likely to be perceived as delivering high-quality education to its students (NLM 2024; Rahayu *et al.* 2023). In addition, this enhances stakeholder satisfaction and impacts school performance regarding growth, healthy finances, reputation, and enrolment numbers (Hivo 2024; Rompho 2020).

Table 1: Antecedents, measuring criteria and their theoretical origins

Antecedent	Key measurement criteria	Theoretical origin
1. Student Perspective 1.1 Students' Academic Excellence	1. Results in National Examination (Grade 12/Matric) 2. School Completion Rate 3. Knowledge Seeking Skills and Outcomes 4. Capability to Integrate Knowledge 5. Information and Communication Technology Skills, including English Proficiency of Students 6. Child-centric teaching and learning 7. Leadership Styles (Strategic, Cultural and Instructional) 8. Headteacher's Transformational Leadership 9. Strategy-based Instruction	Bergdahl *et al.* (2020); Chinpakdee and Gu (2024); Dariyo *et al.* (2022); Gningue *et al.* (2022); Gusnardi (2019); Maqbool *et al.* (2023); Mubonenwa (2019); Rompho (2020); Sengendo and Eduan (2024); Siburian and Pangaribuan (2020); Tan and Walker (2024); Yuliansingsih *et al.* (2024).
1.2. Good behaviour of students	1. Attendance 2. Discipline 3. School 4. Value, Characteristics and Behaviour 5. Number of students who exhibited undesired behaviours 6. School expulsion Rates 7. Parent-teacher Communication (Student well-being)	Aninsingh (2022); Fomba *et al.* (2022); Kaldes *et al.* (2024); Onyinye and Tyough (2018); Rompho (2020); Wei and Ni (2023)
2. Internal Perspective For Academic Excellence 2.1 Processes for Academic Excellence	1. Science, technology, engineering, and mathematics (STEM) teaching capability 2. Number of activities that the community provided knowledge of 3. Innovation in Content 4. Standards of assessment 5. Standard of Educators 6. Networking or Post Sales Service (Alumni Relations, Website, Alumni Data) 7. Innovation in Teaching Process 8. Extracurricular with Math Activities 9. Student-teacher ratio 10. Literacy 11. Achievement 12. School Failure 13. Institutional Quality 14. School Reputation (Accreditation Score)	Amin (2021); Aninsingh (2022) Fernandez-Rio and Iglesias (2024); Fomba *et al.* (2022); Gningue *et al.* (2022); Hanushek *et al.* (2023); Kardianto *et al.* (2022); Maloney *et al.* (2023); Kohler Company (2025) Nugraha *et al.* (2020); Ogunbayo and Mhlanga (2022); Rahayu *et al.* (2023) Rompho (2020); Saksono and Bernardus (2023); Uy *et al.* (2024);

	15. Audit Performance 16. Parent Council 17. Principal's Supervision of Teacher's Performance 18. Principals plan and develop innovations and information technology development 19. Teachers develop creative pedagogies 20. Teachers get paid on time 21. Teachers get discounts on school fees for their children	Wei and Ni (2023); Wilson *et al.* (2024).
2.2 Perspective for Good behaviour	1. Ethics Teaching 2. Number of activities that the community participates in 3. Percentage of participants from the public who participate in the budget preparation process 4. Reliability, Responsiveness, Empathy 5. School Climate (How much direct influence do school teams have on school decisions? How many teachers in the school feel responsible for helping each other improve their instruction?) 6. School expulsion rates 7. Income Inequality 8. Character education (religion, discipline, responsibility, leadership, cleanliness, neatness, politeness, and others) 9. School-based parent involvement	Amin (2021); Aningsih *et al.* (2022); Fomba *et al.* (2022); Gningue *et al.* (2022); Rompho (2020); Wei and Ni (2023).
3. Learning and Growth Perspective 3.1. Adequate Infrastructure	1. Functional classrooms 2. Sanitation facilities 3. Playgrounds 4. Internet connectivity 5. Water supply 6. Internet coverage for the whole school 7. Computer accessibility 8. Good library 9. Good science laboratories	Adeniran *et al.* (2023); Fomba *et al.* (2022); Nwile and Taminodiepreye (2022); Ojuok *et al.* (2020); Pantic and Hamilton (2024) Rompho (2020); Siburian and Pangaribuan (2020).
3.2. Excellent Teacher Quality	1. Excellent teachers for STEM 2. Teacher development programmes (CPD) 3. Information and Communication Technology (ICT) skills 4. English proficiency of teachers 5. Job satisfaction for teachers 6. Influence of non-physical environment on teachers' performance 7. Urbanisation	Adeniran *et al.* (2023); Amin et al (2021); Rompho (2020); Saksono and Bernardus (2023); Uy *et al.* (2024).
4. Resources	1. Leadership styles (Strategic, Cultural and Instructional) 2. Transformational leadership of headmaster (Idealised Influence/Motivation/Stimulation/Individual consideration)	Enache *et al.* (2021); Maqbool *et al.* (2023); Nxumalo *et al.* (2018);

4.1 Management and Leadership Competencies	3. 4.	Leadership practices (Instructional Leadership/Enhancing Teacher's Capacity/Engaging external stakeholders) Principal's supervision and its effect on teachers	Sengendo and Eduan (2024); Tan and Walker (2024); Uy *et al.* (2024).
4.2 Financial Perspectives	1. 2. 3. 4. 5.	Financial Sustainability: Net Operating Cash Flow/Revenue Enhancement: Revenue Realisation, Account Receivables, Collectability Cost Efficiency: Cost realisation, Cost per Student, Budgeting for facilities and infrastructure that support improving the quality of education Economical: Spend the funds received according to the planned expenditures. Efficiency: Income budget allocation. Effectiveness: Reporting on funds received from the Department of Basic Education (only for government schools)	Adeniran *et al.* (2023); Dariyo *et al.* (2022); Saksono and Bernardus (2023) Sukma and Nasution (2022); Yuliansingsih *et al.* (2024)

Regarding good student behaviour, Saksono and Bernardus (2023) suggest that students should develop good character and spirituality (well-being education) to reflect these qualities in their daily attitudes at school. Likewise, good academic performance increases parental satisfaction (NLM 2024; Wei and Ni 2023). As a result, parents will be more involved and engaged, thus increasing their satisfaction (Hivo 2024; Wei and Ni 2023), thereby improving the school's reputation and growing its revenue. Several school attributes were important in determining parents' satisfaction with their public primary school. It is common for parents to become dissatisfied with the quality of services their children receive and may react by withdrawing their children from their current school in search of better opportunities at another school. However, more involved parents are more satisfied, more willing to contribute financially or in kind to the school's improvement, and less likely to withdraw their children from the school (New Jersey Education Society, 2024). Their children also perform better academically (Utami 2022).

If parents continue to be dissatisfied with services, future enrolment numbers in public primary schools will decrease (Chuktu *et al.* 2024). Kristanti *et al.* (2024) highlight the importance of synergy between schools and parents in influencing students' academic achievement and character development. In another study, Dariyo *et al.* (2022) found that innovations in teaching schoolteachers lead to greater stakeholder satisfaction and a positive impact on academic performance. In another study, Sengendo and Eduan (2024) identified transformational leadership as a significant predictor of academic influence through idealised influence, intellectual stimulation, and individual attention.

Regarding school leadership practices, Tan and Walker (2024) showed a significant relationship between leadership and students' academic performance. In this regard, Aninsingh *et al.* (2022) add that character education significantly predicts academic success, emphasising the importance of the antecedent *internal process for good behaviour*. Managers and leaders could significantly enhance the learners' outcomes by using other leadership practices, such as distributed leadership and diverse leadership styles (Maqbool *et al.* 2023; Jambo and Hongde 2020). In support, Gningue *et al.* (2022) demonstrate that teacher leadership significantly impacts school climate.

The antecedent *Internal Perspective for Academic Excellence* can be improved by measuring and managing its performance (Saksono and Bernardus 2023). These authors stated that schools must use a scorecard to increase employee satisfaction (teachers and staff) as a strategic framework to evaluate a school holistically. An integral component of the Internal Perspective for Academic Excellence is the number of qualified pass-outs in National-level Certification examinations (for example, Grade 12) expressed as a percentage of the total number of students who excelled in matric. According to Dariyo *et al.* (2022), innovations in facilities and infrastructure lead to greater stakeholder satisfaction. Furthermore, the percentage of public members involved in the budget preparation and the number of community activities significantly impacted the *Internal Perspective for good behaviour* (Rompho 2020).

Regarding the antecedent *Learning and Growth*, excellent teacher quality and adequate infrastructure are critical parameters. Studies (Saksono and Bernardus 2023; Ogunbayo and Mhlanga 2022 and Rompho 2020) have shown that teacher training, particularly technical training, is significantly associated with improved job performance and academic excellence, thus creating value for stakeholders. The primary determinant of learning and growth is the quality of teachers. An adequate infrastructure should include functional classrooms and bathrooms, a stable electricity and water supply, internet connectivity, and access to computers. Besides learning and growth, internal processes are driven by a resource perspective. The theoretical scorecard recognises the existence of internal relationships between the antecedents. However, in an empirical evaluation of the scorecard, these relationships can be measured using structural equation modelling (see the section on future research).

CONCLUSION

This strategic performance scorecard is contextually appropriate for the Southern African context. The study concluded that schools consistently performing well academically are more likely to be perceived as providing high-quality education. As such, these schools

are in higher demand and can charge higher fees. This positively impacts finances, reputational capital, and enrolment numbers.

It is also concluded that satisfactory academic performance also positively impacts parental satisfaction. As a result, parents are more willing to become involved in school improvement projects. Parents are also more optimistic about paying their children's school fees because they feel that they are getting value for money and that their money is being applied to improve the school experience.

A notable finding is that positive parenting helps with children's discipline. As a result, parents reinforce and support teachers' actions to instil good and healthy student behaviour at school. This conclusion supports the first two. Parent involvement in good behaviour creates a conducive learning environment, and students excel academically.

In examining the focus on the Internal Perspective for Academic Excellence, it is concluded that the school's reputation and adequate infrastructure (such as internet connections, computers, electricity supplies, well-designed sanitation systems, and others) are prerequisites to school growth in terms of learning and growth because they contribute to a conducive learning environment.

It is finally concluded that internal relationships exist among the antecedents. Although the nature of these relationships will be established through empirical studies and validated accordingly, no antecedent can be viewed in isolation. As indicated, academic performance influences parent attitudes, positively impacting finances, the learning environment and others. This means that this school scorecard, in totality, could become a strategic tool to enhance performance for South African private secondary schools, thereby contributing to the United Nations' Sustainable Development Goal 4 towards the Provision of Basic Education (UN 2024).

RECOMMENDATIONS

The following recommendations flow from the conclusions:

1. School management should focus on academic performance as a critical success factor.
2. School managers should use the inter-relationships between academic performance and other success factors to improve the school's performance.
3. This means that mainstream funding should involve creating better academic performance.
4. Involve parents and the community to improve student behaviour and create a positive image.
5. Positively apply this school's performance scorecard to start measuring and actively improving the various performance criteria at the school.

MANAGERIAL IMPLICATIONS

There are several implications for managers because no freely available scorecard could be located that can be used to measure the performance of private secondary schools in South Africa. As such, managers should note that South African educational conditions differ significantly from those of international private schools. This means that managers should note that international performance models are only a partial solution and may not yield the required performance measurement results. For the same reason, managers must be careful not to adopt a generic performance measuring system or tool. Generalised instruments will not yield an accurate reflection of the school's performance. Private secondary schools differ significantly from most other business enterprises, and therefore, a generic approach is undesirable. The theoretical scorecard and questionnaire for this study have not yet been validated. If private secondary schools decide to use it, they should interpret the results with validity in mind. Similarly, the regression weights of the antecedents and sub-antecedents have not been calculated yet. This means that the relative importance of the different variables cannot be used to score the school's performance.

FUTURE RESEARCH

Based on a systematic literature review, this article identified measuring criteria for each antecedent and sub-antecedent to measuring private secondary school performance. Consequently, developing a theoretical framework that can be used as a scorecard in secondary schools. However, albeit thoroughly founded in theory, the scorecard is untested. Future research should empirically validate the antecedents, sub-antecedents and their respective measuring criteria. In addition, the inter-relationships between the four antecedents and the strength of the relationships between the antecedents and sub-antecedents must be determined. This can only be done in an empirical study after data are collected with the newly developed questionnaire.

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Appendix A - Survey questionnaire

Academic Excellence	*Disagree*				*Agree*
1.1 Teachers support the principal in enforcing school rules	1	2	3	4	5
1.2 In our school, we have well-defined learning expectations for all students	1	2	3	4	5
1.3 Our student assessment practices reflect our curriculum standards	1	2	3	4	5
1.4. A teacher leader's influence is exerted primarily in the classroom	1	2	3	4	5
1.5 Teachers exchange suggestions with colleagues regarding new curriculum development	1	2	3	4	5
1.6 Teachers often have colleagues observing their classroom practices	1	2	3	4	5
1.7 Teachers have conversations with their colleagues about what helps students to learn best	1	2	3	4	5
1.8 Teachers get meaningful feedback from their colleagues on their performance	1	2	3	4	5
1.9 Teachers help each other to deal with classroom management	1	2	3	4	5
Student Perspective: Good Behaviour	*Disagree*				*Agree*
2.1 The teacher gives praise to students who behave well	1	2	3	4	5
2.2 The teacher applauds when students succeed in doing or achieving something	1	2	3	4	5
2.3 The teacher displays the best work of students on the school wallboard	1	2	3	4	5
2.4 The teacher enforces school rules for all students	1	2	3	4	5
2.5 The teacher sets an example for all students	1	2	3	4	5
2.6 The school accepts children with special needs and places them with other students according to their grade level;	1	2	3	4	5
2.7 The school teaches children to respect and love each other despite their differences (religion, physical condition etc.)	1	2	3	4	5
2.8 Students work in groups to complete study assignments	1	2	3	4	5
2.9. Students work in groups to clean classrooms	1	2	3	4	5
2.10 Students learn the habit of speaking properly	1	2	3	4	5
2.11 When passing by others, students learn to excuse themselves	1	2	3	4	5

2.12 Students who refer to their peers by their parents' names should be reprimanded and punished	1	2	3	4	5
2.13 When entering the school or teacher's room, it is customary for them to learn to welcome and shake hands with the teacher	1	2	3	4	5
Learning and Growth Perspective: Adequate Infrastructure	*Disagree*			*Agree*	
3.1 Schools have adequate Land Area according to provisions	1	2	3	4	5
3.2 The school meets safety and health requirements	1	2	3	4	5
3.3 The school has complete and well-equipped classrooms, chemistry laboratories, physics, biology, language, and information technology	1	2	3	4	5
3.4 The school has a playground, canteen, circulation space and parking	1	2	3	4	5
3.5 The school has a principal's room, a teacher's room, an administrative staff room, a prayer room, a counselling room, a student council room, latrines, and warehouses that meet standards	1	2	3	4	5

Resources: Financial Perspective	*Disagree*				*Agree*
4.1 The school budget has been utilised effectively and efficiently	1	2	3	4	5
4.2. The school has and follows appropriate mechanism for raising funds	1	2	3	4	5
4.3. The school provides discounts to students who pay fees for a year	1	2	3	4	5
4.4. The school already has/proposes a digital payment method for paying tuition fees	1	2	3	4	5
4.5 The school provides an economic scholarship program	1	2	3	4	5
4.6 The school conducts revenue evaluations periodically	1	2	3	4	5
4.7 The school maps the internal students who have problems with ageing (Accounts Receivables) and follows up based on guidelines	1	2	3	4	5
4.8 The school prepares a budget based on realising expenditures in the previous year	1	2	3	4	5
4.9 The school conducts its financing following the approved program and timeline	1	2	3	4	5
4.10 The school conducts cost evaluation periodically	1	2	3	4	5

CHAPTER 4: ARTICLE 3

VALIDATING A THEORETICAL MODEL TO MEASURE PERFORMANCE MANAGEMENT IN SOUTH AFRICAN PRIVATE SECONDARY SCHOOLS

This article is finalised and ready to be submitted to an academic journal. The authors are currently identifying suitable Scopus Q1 and Q2 journals to which to submit the article.

Validating a Theoretical Model to Measure Performance Management in South African Private Secondary Schools

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Abstract

Performance management systems (PMSs) in secondary education are vital tools to enhance managerial and leadership performance. Their importance extends towards maintaining a sustainable competitive advantage in the private school market because performance measurement systems are crucial organisational tools that integrate strategic planning, operational performance, and human resources, while providing feedback. Likewise, performance measurement and evaluation enhance firm-level school performance by improving job security and employee motivation. Although several tried and tested performance measurement models exist for public sector schools, there are limited performance measurement models that focus on private secondary school performance measurement in the South African context. Measuring performance presents a complex challenge, with both advantages and disadvantages, including issues of accountability, resource allocation, and identifying weaknesses. However, it also risks a narrow focus on testing, low motivation, and inadequate consideration of socioeconomic factors. Despite existing evaluation methods, such as Whole-School Evaluation (WSE) and various Value-Added Models (VAMs), that can provide insights, private secondary schools in South Africa lack a comprehensive performance measurement or scorecard system to measure the performance processes and their impact on the school's performance. The objective of this study is to empirically validate a customised South African tailor-made theoretical

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performance measurement model developed from a systematic review of 220 articles. The secondary objectives are to determine the relationships between its key antecedents (*Academic Excellence, Internal Processes, Learning and Growth,* and *Resources*) and their respective sub-antecedents. Data was collected by distributing a hardcopy questionnaire to appointed coworkers at 12 schools in the eThekwini Municipality of KwaZulu-Natal in Durban, South Africa. The schoolmaster's permission and blessing were obtained, and a coworker was appointed to help with the distribution and collection of the structured 5-point Likert scale questionnaires. A high response rate of 89% (N= 274; n=244) was realised because the coworkers personally distributed 285 questionnaires to their colleagues and collected 274 after completion. The data were tested for normality and reliability (Cronbach's alpha coefficients consistently exceeded 0.70), and the validity of the model was tested using exploratory factor analysis. The data are normally distributed, not skewed, and the antecedents could be validated. As a result, the model for measuring private secondary schools' performance could be validated, and the respective relationships between the antecedents were calculated. *Learning and Growth* (16.46%) is the most important antecedent, followed by the *Student perspective* (15.51%), and the *Resource perspective* (12.20%). The *Internal perspective for academic excellence* is, surprisingly, the least important (7.94%). The results show that all four antecedents are valid and should be used in the performance measurement of private secondary schools. Although the study is valuable to future researchers, its core value lies in managerial application. School boards, schoolmasters and management can now apply a validated, tailor-made model to measure the performance of South African secondary private schools and do corrective interventions to improve their competitiveness in the market.

Keywords: Performance management, South Africa, education, private secondary schools, framework, model, validate.

1. INTRODUCTION

Public schools comprise 90.8% of the 24,900 schools in South Africa. The number of private secondary and primary schools is evenly distributed, with just under 10% of the private schools being secondary schools (Cowling, 2024). Private schools cater to the wealthy and privileged, whereas public schools are more diverse and serve a broader range of populations. Historically, white (predominantly English) South African students attended private schools in KwaZulu-Natal. However, after the first democratic election in 1994 and the economic empowerment of all people in South Africa, the demographics of private schools are now closely resembling those of the country. KwaZulu-Natal has 5,790 schools, of which 230 (3.98%) are private schools (IEB High Schools, 2025a). However, although KZN has fewer private schools than Gauteng (918) and the Western Cape (319), many of the private schools in the province are prestigious schools with a rich and historic background.

Private schools, costing on average ZAR136,000 per annum, target higher-than-average family incomes and some international students (Muzanya, 2023). These elite schools provide a higher quality education and record a university exemption pass rate of 99% in 2023, while public schools averaged only a 34% university exemption pass rate (Muzanya, 2023).

A study by Herath *et al.* (2023) revealed that school infrastructure is one of the critical factors that significantly contribute to educational outcomes, and therefore, maintaining the high quality of school infrastructure becomes of critical importance. Due to the ageing of school assets over time, combined with budget constraints and the rapid growth of student enrolment, many public schools are currently struggling to maintain the required standard in the long term. Cuesta *et al.* (2016) found evidence that adequate school facilities, such as toilets, laboratories and water drinking points, increase learner enrolment and learning.

Studies have shown that many learners in South Africa still attend classes in muddy classrooms or under trees, and in some instances, two grades are accommodated within a single classroom (Marais, 2016; West & Meier, 2020). If left unresolved, the lack of adequate school infrastructure has the potential to continue adversely affecting teaching and learning outcomes (Mokgwathi *et al.*, 2023).

Thus, sufficient infrastructure remains a key concern in the performance of South African schools. Private schools are less affected because they can afford to develop their own infrastructure, such as boreholes for backup water supply or diesel generators for sustainable electricity supply. Many private schools have already installed alternative electricity supply systems using photovoltaic roof panels and lithium batteries to ensure a conducive learning environment.

The private education market is highly competitive and concentrated (Department of Basic Education, 2023), and a private school's performance is a crucial competitive edge. Several studies examined the impact of various key performance areas on schools (Alolah *et al.*, 2014; Amin, 2021; Brown *et al.*, 2009; Siburian & Pangaribuan, 2020; Gusnardi, 2019; Hasan & Chyi, 2017; Soderberg *et al.*, 2011; Saksono & Bernardus, 2023; Hanushek *et al.*, 2023). In a more focused approach, Kattamaney (2024) examined the impact of school characteristics on mathematics achievement among Grade 9 students. Meanwhile, as of 2001, the Department of Basic Education introduced Whole-School Evaluation (WSE) and several Value-Added Models (VAMs) (Prior *et al.*, 2020). Predictive models using logistic regression and Light Gradient Boosting (LightGBM) also provide policymakers with valuable insights into school performance (Wandera *et al.*, 2019).

However, these existing models do not provide a comprehensive and holistic view of performance in South African private secondary schools. This article addresses this gap by developing a strategic performance measurement scorecard to manage the performance of a private secondary school. The traditional Kaplan and Norton (1992) Balanced Scorecard served as a point of departure to focus and align the performance of private secondary schools. In the scorecard approach, pertinent data is systematically gathered and analysed to evaluate the performance of private schools. A data-driven model facilitates objective data-based decision-making to improve proficiency and eliminate deficiencies more precisely by implementing targeted managerial interventions and efficiently allocating resources

2. THEORETICAL REVIEW

This article's literature review comprises two sections. The first section provides a theoretical overview of performance management, defining it and examining its advantages and disadvantages. It continues to discuss the methodology of measuring the performance of a

secondary private school. The second section presents the newly developed theoretical model to measure the performance of secondary private schools.

2.1 Performance management

2.1.1 Definition of Performance Management

Performance management is commonly defined as an organisational tool that leverages predefined goals and incentives to evaluate team members, while also serving as a motivator for employees to fulfil their professional responsibilities. Armstrong (2022) defines it as a systematic process for improving organisational performance by developing the performance of individuals and teams, emphasising its role in achieving better results through understanding and managing performance within an agreed framework of planned goals, standards, and competence requirements. Investopedia (2024) defines performance management as a tool that helps managers monitor and evaluate employees' work, aiming to create an environment where individuals can perform to their best abilities and align with the organisation's overall goals. Similarly, the Cambridge Dictionary (2025) defines performance as activities ensuring goals are consistently met effectively and efficiently. Venkat *et al.*(2025) suggest that AI-integrated performance management has the potential to transform performance management and employee development, fostering a more efficient and dynamic work environment aligned with organisational goals.

2.1.2 The importance of measuring Performance management

Measuring performance management is crucial for an organisation's overall strategy and success, necessitating continuous and systematic practices at both the individual and team levels. The core emphasis of various definitions of performance management is the importance of aligning individual and team efforts with organisational goals. This alignment is fundamental, as an organisation's success is intrinsically linked to its employees' contributions, ensuring that these efforts are directed towards the right objectives (Walters, 1995). Measuring and managing performance was formalised in the early 1990s. Examples such as Lockett’s (1992) concept of "Working towards the achievement of shared meaningful objectives" and Armstrong and Baron’s (1998) focus on "Improving the performance of the people who work in them" universally underscore the goal of harmonising individual and organisational objectives. Several authors, including Kaplan and Norton (1992), have highlighted the positive impact of a robust Performance Management System (PMS) on growth and progress. They recognised that a PMS extends beyond mere performance monitoring; it is fundamentally about enhancing overall output and productivity.

By improving knowledge and skills, individuals and teams can be effectively trained to perform more effectively, thereby maximising efficiency and goal attainment. Mohrman and Mohrman's (1995) assertion that PMS is about "managing the business" emphasises its proactive role in driving organisational advancement. Thus, performance management is positioned as a strategic, integrated process that empowers individuals and teams to achieve their goals, grow professionally, and ultimately enhance organisational productivity and success.

Research further supports this, with Jukka (2023) finding that aligning a company's business strategy with its management control system (MCS) is a key determinant of organisational performance. The study indicated that different business strategies achieve better results when paired with appropriate management controls through an MCS. Furthermore, in public-private partnerships, a PMS has helped practitioners better understand project performance processes, enabling them to make informed decisions that enhance future outcomes. For private secondary schools, establishing clear, measurable goals is paramount for focused efforts and effective resource utilisation, as research indicates that schools with well-defined objectives are more likely to perform purposefully and achieve better results. Adopting a balanced scorecard provides a comprehensive view of school performance across various dimensions, enabling the identification of strengths and weaknesses to inform targeted improvement decisions.

2.1.3 Advantages and disadvantages of performance measurement.

The following are advantages associated with measuring performance management:

- *Identifying weaknesses*: Performance measurement can pinpoint areas where students and teachers face difficulties, allowing for targeted interventions (Banu *et al.*, 2024).
- *Improved learner experience*: Effective management by principals and school management teams is crucial for staff development, which in turn, improves or maintains students' academic performance (Arendse *et al.*, 2024).
- *Accountability*: Establishing clear performance standards can hold educators and institutions accountable, potentially improving teaching practices (Vandeyar & Adegoke, 2024).
- *Resource allocation*: Performance assessment data can guide policymakers in effectively allocating resources to address disparities in educational quality (Mlachila & Moeletsi, 2019).

- *Enhanced teaching-learning experiences*: Integrating Information and Communication Technology (ICT) in schools, supported by training, enhances teachers' educational ability and improves integrated learning in classroom instruction (Vandeyar & Adegoke, 2024).

However, performance management could be associated with some disadvantages, such as

- *Narrow focus*: Prioritising testing often leads to less time for innovative instruction and a reduction in actual curriculum content, hindering holistic learning (Nahar, 2023).
- *Low motivation*: High-stakes testing has been found to reduce motivation for both educators and learners (Gölogluu & Kaplan, 2021).
- *Socioeconomic factors*: Performance metrics may not adequately account for students' diverse socioeconomic backgrounds, potentially leading to skewed results and perpetuating inequalities (Mlachila & Moeletsi, 2019).

2.1.4 Measuring performance management in a school setting

Measuring overall school performance involves considering several influencing factors. Ahmadi *et al*.(2025) identify five main factors affecting students' academic performance: individual factors, school factors, family and social factors, peer factors, and occupational factors. Among these, student mental health and the mental dimension of the family environment are highlighted as critical indicators. Educational reforms also play a significant role in measuring student performance. Adeniyi *et al.* (2024) reviewed educational reforms, including curriculum modifications, teacher training, and technological advancements, in several African countries. Their findings emphasise the need to examine the practical effects of policies on students, utilising measures like standardised test scores, graduation rates, and qualitative assessments. Contextual factors, including socioeconomic disparities, cultural influences, and infrastructure challenges, significantly impact the implementation and outcomes of educational reform. In South Africa, Ngcobo and Ndovela (2025) investigated the effectiveness of financial performance monitoring in public schools. They found that a lack of clarity, inadequate training for governing body members, non-user-friendly financial guidelines, and poor communication and coordination significantly impact a school's performance. Their recommendations included developing a user-friendly digital training manual for finance committees and governing bodies, along with a digital monitoring and evaluation model that integrates artificial intelligence to track fund usage and school performance. In principle, two lines of thought are used to measure performance (Jovels, 2024). That is to use a generalised or standardised model or scorecard (such as the Whole-

School Evaluation developed by the Department of Basic Education (2001), Value-Added Models (Prior *et al.*, 2020), or the generalised Kaplan and Norton's Balanced Scorecard (1992). Alternatively, an organisation (or school) can develop a bespoke, tailored model. Bespoke tailored models refer to a unique, tailor-made model or scorecard that specifically measures all the antecedents relevant to the specific organisation (Wood, 2025). This organisation could also refer to a school and its environment, such as secondary private schools in the South African context.

2.1.4.1 Standardised models

The South African Department of Basic Education introduced the Whole-School Evaluation (WSE) policy in 2001. This evaluation included external and internal school self-evaluation components (DBE, 2001). The primary goal of a WSE is to measure and then to empower schools through inclusion and improvement. Key aspects of this standardised approach include (DBE, 2001; MacBeath, 2003, 2005):

- Internal and External Evaluation: Incorporating both forms of evaluation aligns with international trends.
- Dual-purpose self-evaluation: Recognised for accountability and its potential to drive improvement.
- Stakeholder Involvement: Applying methods like interviews, discussions, classroom observations, and SWOT analyses with stakeholders such as the school management, teachers, support staff, school governing bodies, parents, and learners.
- Comprehensive school functions: The WSE in South Africa covers nine focus areas, namely Basic functionality of the school, Leadership, management and communication, Governance and relationships, Quality of teaching and learning, and educator development, Curriculum provision and resources, Learner achievement, School safety, security and discipline, School infrastructure, and Parents and community.

Although the WSE (and other) standardised models are valuable tools, they are predominantly developed for public-school performance. Several focus areas are similar (such as learner achievement, curriculum provision or infrastructure), while other focus areas (such as governance, leadership, and the community) differ widely in the private school environment. Private school principals and the school board are business managers, overseeing budgets, income, profitability, and student recruitment (for example), to remain

competitive in the market, while their public counterparts act as administrators of government funding. Although private schools are subject to some regulations (such as quality approval under the DBE's and can receive subsidies, they operate under different criteria than public schools and are not evaluated using the same framework (ISASA, 2025). The WSE or other standardised public-school models are thus not suitable to measure the performance of a private school competing in the open market as a business.

2.1.4.2 Bespoke or "Tailor-made" models

Bespoke (Tailor-made) models offer a more customised approach to performance assessment. One such model is the School Weavers Tool. It is an international school performance measurement tool validated in at least eight countries (including South Africa) (Díaz-Gibson *et al.*, 2020). This diagnostic tool enables educational leaders to evaluate school culture from multiple perspectives, fostering deep reflection and facilitating a comprehensive 360-degree evaluation of qualitative aspects of a learning ecosystem (Whittaker & Kure, 2025). Other models, such as Logistic Regression and Light Gradient Boosting (LightGBM), include machine learning techniques that can develop predictive models for assessing school performance in South Africa. These models utilise data from community surveys, school master lists, and government reports to identify critical factors, such as access to clean water, sanitation, healthcare, electricity, household goods, mobile internet, and community safety, that affect school performance (Wandera *et al.*, 2019). These models offer policymakers valuable insights, as they are designed for accuracy, stability, and interpretability. In another bespoke model, Van den Heever *et al.* (2024) combined machine learning with agent-based modelling to simulate learner progression and highlight key influencing factors in South African public high schools. Their XGBoost model, integrated into an agent-based framework, accurately predicts learner progression and serves as a strategic tool for evaluating educational interventions.

The applied school performance management models include both quantitative and qualitative designs. The popular quantitative models are the Value-Added Models (with or without multivariate outcomes), Adapted International Models, and Comparative Analysis models (Prior *et al.*, 2020; Wandera *et al.*, 2019; Archer *et al.*, 2010; Sen *et al.*, 2017). Popular qualitative models include the Integrated Quality Management System, Instructional and Transformational Leadership Integration, Performance Management Development Systems (Mchunu & Steyn, 2017; Shava, 2021; Maremi *et al.*, 2020; Ajani & Dlomo, 2025).

2.1.4.3 Suitability of tailor-made models for South Africa

This study uses a tailor-made model to measure the performance of private higher secondary schools. This decision is largely based on the uniqueness of the private secondary school environment and the inability of existing public-school models to adequately measure private school performance, which is heavily influenced by business and entrepreneurial principles. Furthermore, South Africa's diverse cultural landscape and complex political and economic circumstances present unique challenges in an educational environment. This study then developed and applied a theoretical model to specifically measure performance at private secondary schools. This tailor-made approach postulates the following advantages:

- Contextual relevance: Unlike standardised models that may not fully capture local nuances, tailored approaches can be adapted to the specific cultural and linguistic diversity of South Africa, ensuring validity and relevance (Vandeyar & Archer, 2010).
- Addressing specific challenges: South Africa faces distinct issues such as socioeconomic disparities, infrastructure challenges, and varying levels of access to resources like clean water, electricity, and community safety (Wandera *et al.*, 2019). Tailor-made models, especially those leveraging machine learning, can incorporate these critical factors to provide more accurate and interpretable insights for policymakers (Wandera *et al.*, 2019).
- Comprehensive Assessment: Tailor-made models can be adapted to include both academic and non-academic outcomes, providing a more holistic and equitable assessment of school effectiveness, which is crucial in a diverse and resource-constrained environment like South Africa (Prior *et al.*, 2020; Sen *et al.*, 2017).
- Strategic decision-making: Predictive models using machine learning and agent-based simulation offer strategic tools for evaluating and refining educational interventions, providing a performance measurement framework that is highly relevant to South Africa's education system (Van den Heever *et al.*, 2024).
- Flexibility and customisation: Tailor-made models can comprehensively perform a 360-degree evaluation of qualitative aspects of a learning ecosystem, customised to the unique culture and needs of individual schools or regions (Whittaker & Kure, 2025).
- Given the complexities and specific needs of South African schools, tailor-made models offer a more accurate, equitable, and effective means of measuring and enhancing performance.

2.2 A Theoretical model to measure secondary private schools' performance

The authors in this study propose a new strategic performance scorecard model for private secondary schools, adapting Kaplan and Norton's (1992) original balanced scorecard framework. This theoretical model outlines potential relationships between its key influences (variables), namely 1) Academic Excellence, 2) Internal Processes, 3) Learning and Growth, and 4). Resources and Their Impact on School Performance. The first sub-antecedent is *Student Academic excellence,* which is measured by criteria such as the results in the *National Examination (Grade 12/Matric), School completion rate, Knowledge seeking skills and outcomes, Capability to integrate knowledge* (Rompho, 2020; Maqbool *et al.*, 2023; Sengendo & Eduan, 2024; Tan & Walker, 2024). The second sub-antecedent is *Good behaviour of students*, measured by criteria like *attendance, discipline, characteristics, value, and behaviour,* and *schoo*l expulsion rates (Rompho, 2020; Fomba *et al.*, 2022; Wei & Ni, 2023; Yulianingsih, 2024; Chuktu *et al.*, 2024). The antecedent *Internal Perspective for Academic Excellence* also comprises two sub-antecedents. They are the processes that facilitate academic excellence and good student behaviour. Saksono and Bernardus (2023) contextualise the Internal process for academic excellence by stating that it is essential for a school to create higher employee (teachers and staff) satisfaction, using a quantitative scorecard as a strategic framework for holistic evaluation. Focusing on an internal perspective on good behaviour contributes to the establishment of an environment conducive to fostering good behaviour, which culminates in a nurturing environment where students are taught the nuances of good behaviour and are assessed through criteria such *as Ethics teaching, School climate, Parent-teacher involvement,* and *Character education* (Rompho, 2020; Amin *et al.*, 2021; Gningue *et al.*, 2022; Fomba *et al.*, 2022). Other elements that significantly impacted the *Internal Perspective for good behaviour* are the percentage of public participants participating in the budget preparation and the number of community activities (Rompho, 2020).

The third antecedent pertains to *Learning and growth.* This antecedent includes excellent teacher quality and adequate infrastructure. Indicators subscribing to the *Learning and growth* are *Innovation initiatives* (measured by the number of innovation proposals) and *Teacher competencies* (measured by the number of teachers completing professional development, to the total number of teachers in a school). Research by Ogunbayo and Mhalanga (2022) also found strong evidence that teacher training, particularly technical training (regarding the Learning and growth antecedent), positively impacts job performance and enhances academic excellence, creating value for stakeholders. The fourth antecedent

relates to *Resources* (such as financial, managerial and leadership resources). Finally, from the resource's perspective, financial, leadership, and management resources are essential in any school's performance. The financial perspective can further be deconstructed into sub-variables such as *Financial, Sustainability* (Net operation Cash flow or Revenue) *Enhancement* (Revenue realisation, Account receivables, Collectability), *Cost Efficiency* (Cost Realisation, Cost/Student, Budgeting for facilities and infrastructure that support improving the quality of education), *Economical* (Spending the funds received according to the planned expenditures), *Efficiency* (Income budget allocation) and so on (Maqbool *et al.*, 2023; Sengendo & Eduan, 2024; Tan *et al.*, 2024; Uy *et al.*, 2024; Enache *et al.*, 2021; Nxumalo *et al.*, 2018). Regarding *Management and leadership competencies*, school leadership competencies include the leadership styles of principals (strategic/cultural), transformational leadership of the headmaster (which encompasses aspects such as idealised influence, motivation, and stimulation), principal supervision and its impact on teachers, among others (Maqbool *et al.*, 2023; Sengendo & Eduan, 2024; Tan *et al.*, 2024; Uy *et al.*, 2024). Each of these four perspectives has sub-constructs and theoretically founded measurement criteria. Figure 1 shows the theoretical model.

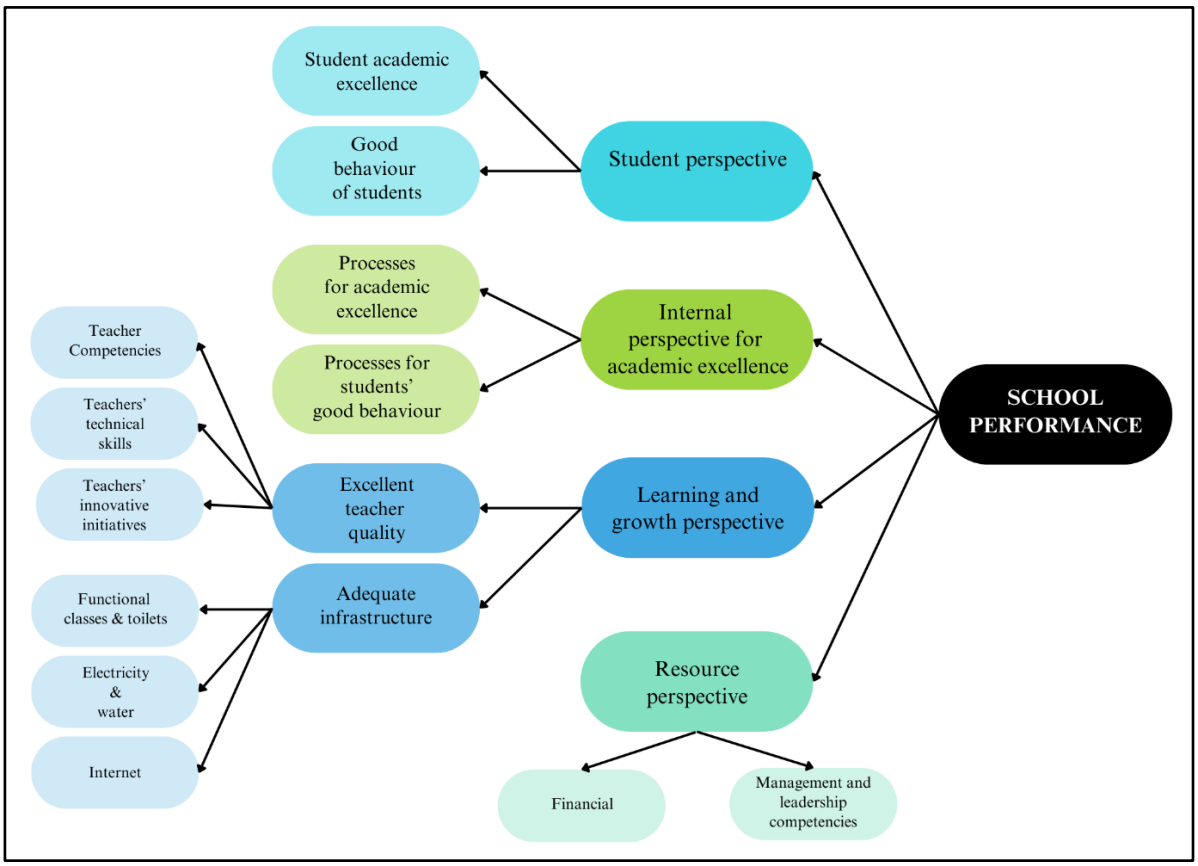

Figure 1: Theoretical model to measure the performance of a private secondary school

(Source: Nag *et al.*, 2025)

Using a scorecard as a strategic framework for performance management in private secondary schools within South Africa has significant theoretical implications that may substantially influence the educational domain. A significant theoretical implication is related to the congruence between objectives and outcomes (Siburian & Pangaribuan, 2020). Implementing a scorecard enables educational institutions to effectively articulate their strategic goals, objectives, and desired outcomes in alignment with the municipality's overarching educational mission. Establishing this alignment facilitates a unified approach to education, encouraging uniformity and collaboration among educational institutions and enhancing educational outcomes (Alolah *et al.*, 2014; Amin, 2021; Brown *et al.*, 2009). Another noteworthy theoretical implication pertains to prioritising decision-making based on empirical data.

The scorecard approach involves systematically gathering and examining pertinent data to evaluate the performance of educational institutions. The data-driven decision-making process enables educational institutions to identify both areas of proficiency and deficiency more precisely, thereby facilitating the implementation of targeted interventions and the allocation of resources (Gusnardi, 2019; Hasan & Chyi, 2017; Soderberg, 2011; Saksono & Bernardus, 2023; Hanushek *et al.*, 2023). Furthermore, this approach promotes a culture of responsibility and openness, as educational institutions must justify their achievements based on predetermined criteria and exhibit ongoing improvement. The strategic framework also incorporates the concept of a balanced scorecard, which encompasses various dimensions of school performance that extend beyond academic accomplishments alone. A scorecard offers a more comprehensive assessment of a school's effectiveness by considering various perspectives, including student satisfaction, teacher development, and community engagement (Bremser & White, 2000; Siburian & Pangaribuan, 2020).

This approach, characterised by its equilibrium, is supported by contemporary educational theories that underscore the importance of comprehensive growth and equipping students for the challenges they may encounter outside the academic realm. Furthermore, the strategic framework fosters a culture of learning and innovation within educational institutions. To achieve established performance objectives, educational institutions can explore novel pedagogical approaches, curriculum advancements, and systems to support students (Dariyo *et al.*, 2022). The prevalence of an innovative culture can yield widespread benefits, extending beyond individual students to encompass the larger educational community through the dissemination and adoption of successful practices. Although

Rompho's (2020) study found strong evidence for using scorecards in education, a balanced scorecard for schools is not ideally suited to the Balanced Scorecard by Kaplan and Norton, but the principle is sound. A school that consistently achieves high academic achievement indicators is likely to be perceived as delivering high-quality education to its students (Brown *et al.*, 2006; Rahayu *et al.*, 2023). Additionally, this enhances stakeholder satisfaction and has a positive impact on school performance in terms of growth, financial stability, reputation, and enrolment numbers (Rompho, 2020). Regarding good student behaviour, Saksono and Bernardus (2023) suggest that students should develop good character and spirituality (well-being education) to reflect these qualities in their daily attitudes at school. Likewise, good academic performance increases parental satisfaction (Wei & Ni, 2023). As a result, parents will be more involved and engaged, thereby increasing their satisfaction (Wei & Ni, 2023), which in turn will improve the school's reputation and increase its revenue.

Several school attributes were important in determining parents' satisfaction with their public primary school. It is common for parents to become dissatisfied with the quality of services their children receive, and they may react by withdrawing their children from their current school in search of better options at another school. If parents continue to be dissatisfied with services, future enrolment numbers in public primary schools will decrease (Chuktu *et al.*, 2022). Kristanti *et al.*(2024) highlight the importance of synergy between schools and parents in influencing students' academic achievement and character development. In another study, Dariyo *et al.*(2022) found that innovations in teaching schoolteachers lead to greater stakeholder satisfaction and a positive impact on academic performance. In another study, Sengendo and Eduan (2024) identified transformational leadership as a significant predictor of academic influence through idealised influence, intellectual stimulation, and individual attention.

Regarding school leadership practices, Tan and Walker (2024) showed a significant relationship between leadership and students' academic performance. In this regard, Zulela *et al.* (2022) add that character education significantly predicts academic success, emphasising the importance of the antecedent *Internal process for good behaviour*. Managers and leaders can significantly enhance learners' outcomes by employing other leadership practices, such as distributed leadership and diverse leadership styles (Jambo & Hongde, 2019; Maqbool *et al.*, 2023). In support, Gningue *et al.* (2022) demonstrate that teacher leadership has a significant impact on school climate. The antecedent *Internal perspective for academic excellence* can be improved by measuring and managing its

performance (Saksono & Bernardus, 2023). These authors stated that schools must use a scorecard to increase employee satisfaction (among teachers and staff) as a strategic framework for evaluating a school holistically. An integral component of the Internal Perspective for Academic Excellence is the number of qualified pass-outs in national-level certification examinations (e.g., Grade 12), expressed as a percentage of the total number of students who excelled in matriculation. According to Dariyo *et al.* (2022), innovations in facilities and infrastructure lead to greater stakeholder satisfaction. Furthermore, the percentage of public members involved in budget preparation and the number of community activities significantly impacted the internal perspective on good behaviour (Rompho, 2020). Regarding the antecedents of learning *and growth*, excellent teacher quality and adequate infrastructure are critical parameters.

Several studies (Ogunbayo & Mhalanga, 2022; Rompho, 2020; Saksono & Bernardus, 2023) have shown that teacher training, particularly technical training, is significantly associated with improved job performance and academic excellence, thus creating value for stakeholders. The primary determinant of learning and growth is the quality of teachers. An adequate infrastructure should include functional classrooms and bathrooms, a stable electricity and water supply, internet connectivity, and access to computers. Besides learning and growth, internal processes are driven by a resource perspective. The theoretical scorecard recognises the existence of internal relationships between the antecedents. However, in an empirical evaluation of the scorecard, these relationships can be measured using structural equation modelling to achieve better clarity and obtain a refined model fit for this context.

3. PROBLEM STATEMENT

In schools, teachers and their supervisors initiate the PMS process by creating "Performance Development Plans" (PDPs), which are annual agreements outlining goals and targets to be achieved. Supervisors check on teachers three times a year to assess their performance (Combs *et al.*, 2006; Deci & Ryan, 1985). A Performance-based Reward System (PBRS) is also part of the PMS system. Its goal is to reward good performance. (Atamturk *et al.* 2011; Varma & Budhwar, 2023). The authors also considered the state of the performance management system in state-run schools as part of a different study. The study aimed to determine what teachers and headmasters thought about the impact of performance management on school quality (Holland & Campbell, 2005; Dzimbiri, 2008; Marobela & Andrae-Marobela, 2013; Tan *et al.*, 2024). The analysis of the results showed

that teachers in PMS schools had to use a participatory planning process to set their goals, based on the unique setup and culture of each school. People also said that the success of PMS depended on constant feedback, training while employees were on the job, and commitment and motivation. Aslam *et al.* (2011) suggest that a PMS system for teachers could be more effective if teachers received feedback, were trained by their supervisors, and participated in planning and performance review meetings (Nxumalo *et al.*, 2018).

Private secondary schools should establish a process for collecting data on key performance indicators (KPIs) and regularly review and analyse the data to assess their performance. This can be achieved with the help of student tests, surveys, staff and parent feedback, and financial reports (Mothusi, 2008; Poister, 2008). Data analysis involves identifying trends, pinpointing areas of strength and weakness, and exploring ways to improve. It is important to regularly report on the school's performance and progress toward its goals, both inside and outside (Holland & Campbell, 2005; Dzimbiri, 2008; Marobela & Andrae-Marobela, 2013; Hart, 2023). Based on the scorecard's data and analysis, private secondary schools should develop specific plans to address their challenges and leverage their strengths. These initiatives can include programmes to help teachers improve their skills, support students who are struggling, changes to the curriculum or teaching methods, and programmes to engage parents more fully and increase their satisfaction with the school (Mothusi, 2008; Poister, 2008). Improvement initiatives should align with school goals and have clear action plans, timelines, and people or teams in charge. Performance management should not be considered a one-time thing in private secondary schools. Instead, it should be seen as an ongoing process. This entails creating a supportive and collaborative environment where feedback is valued and individuals are encouraged to learn from both successes and failures (Boipono *et al.*, 2014; Mothusi, 2008; Bergdahl *et al.*, 2020).

Schools should regularly review their strategic framework, making changes based on feedback and new challenges to ensure it remains effective in improving performance. Using a scorecard as part of a strategic framework for managing performance can provide private secondary schools in South Africa with a structured approach to achieving their goals and enhancing their overall performance (Molefhi, 2016; Holland & Campbell, 2005; Saksono & Bernardus, 2023). By setting clear goals, developing a school-specific strategic balanced scorecard, monitoring and reporting performance, implementing improvement plans, and

fostering a culture of continuous improvement, schools can ensure they are on the path to excellence and meet the evolving needs of their students, parents, and other stakeholders.

However, none of these studies specifically focus on the challenges of private secondary schools in South Africa. International performance measures lack cultural and African insight and are incomplete for measuring the performance of South African private schools. Managing schools' performance is problematic for principals and school boards. Although there are regulated agreements among board members and principals regarding the specific performance criteria in the public-school management system, this is not the case in private schools. There are disagreements about which criteria require performance management in private schools and what the role is in each case. For example, some members strongly focus on academic performance criteria, while others believe that sports should play a more prominent role due to their marketing value in a private school. Private schools compete in the open market for top pupils against one another, as well as against public schools. As such, private school management must identify the "right" performance criteria and measure these criteria regularly to ensure their managerial actions yield the desired returns. This is problematic because no South African private school performance scorecard is available for use. This study aims to develop such a managerial performance scorecard for private secondary schools in the KwaZulu-Natal province of South Africa.

4. RESEARCH OBJECTIVES:

The primary objective is to empirically validate a theoretical model to measure the performance of a private secondary school in South Africa.

The secondary objective is to determine if significant relationships exist between school performance and the four theoretical antecedents (*Student perspective, Internal process for academic excellence perspective, Learning and Growth Perspective,* and the *Resource perspective*).

5. RESEARCH HYPOTHESES:

The objective is articulated through the following hypotheses:

Ho: No significant positive effects exist between the four antecedents and the performance of a private secondary school.

H_1: Significant positive effects exist between the four antecedents and the performance of a private secondary school.

H_{1a} : The Student Perspective has a significant positive effect on the performance of a private secondary school.

H_{1b}: The Internal Process for Academic Excellence has a significant positive effect on the performance of a private secondary school.

H_{1c}: The Learning and Growth Perspective has a significant positive effect on the performance of a private secondary school.

H_{1d}: Resource perspective has a significant positive effect on the performance of a private secondary school.

6. RESEARCH METHODOLOGY

In this study, the authors adopted an epistemological approach rooted in a positivist paradigm, which provided an objective interpretation of events and a scientific rationale for their viewpoints. There are three fundamental philosophical assumptions that define positivism's approach to scientific inquiry (Wati, 2024). As part of its ontological foundation, positivism embraces realism, which is the idea that reality is composed of distinct events that can be experienced by humans through their senses (Karupiah, 2022). According to this perspective, there is an objective reality that exists independent of the researcher's perceptions or beliefs (Park *et al.*, 2020). Positivism employs dualistic and objectivist epistemological frameworks, arguing that researchers and observed reality are separate entities (Karupiah, 2022). For knowledge to be acquired, it must be value-free and objective, and truth must be static and accessible through empirical observation (Park *et al.*, 2020).

In keeping with this epistemological stance, "science is the only valid form of knowledge, and only observable facts can be used for study" (Wati, 2024). According to the positivist paradigm, researchers prioritise observable phenomena that are objectively measurable. The epistemological foundation of objectivism is derived from the observation and measurement of objective reality (Ali, 2024). This approach emphasises the separation between the researcher and the research subject to maintain objectivity. The positivist approach employs systematic hypothesis testing to advance scientific knowledge. Through the accumulation of empirically validated findings, results from hypothesis tests are used to "inform and advance science" (Park *et al.*, 2020). During the study, all characteristics associated with a positivist paradigm were adhered to. By utilising data to test the hypothesis empirically, objectivity was maintained. Both the researcher and the subjects are independent entities, and their responses were recorded using a reliable and valid research instrument, a questionnaire. Furthermore, it followed the norms of a positivist mode of

inquiry, including empirical evidence, statistical analysis, generalisable results from large sample sizes, and identification of causal relationships (Park *et al.*, 2020; Alhoussawi, 2023). A 5-point Likert scale was used to collect data through a structured questionnaire. Inferential statistics were used to analyse the data and statistically test the model parameters. Exploratory factor analysis validated and simplified the model. The study targeted 18 schools within the eThekwini Municipality in Durban (DBE, 2022), and 12 schools consented to participate, provided that the necessary gatekeeper approvals were followed. As such, the questionnaires were handed in hard copy to the designated person (such as principals, school governing body members, educators, and administrative officers) who were appointed as the gatekeepers for distribution at the respective schools after obtaining informed consent. Data collection occurred between March and May 2025. A total of 285 questionnaires were distributed, and 274 were collected. However, only 244 were usable, yielding an effective response rate of 89%. Table 1 shows the participating schools and the classification of the respondents. This study was approved by both the North-West University Scientific Committee and its Ethics Committee, therefore conforming to the validity norms prescribed in a positivist research study such as this one. The study is classified as a minimal risk study and has been issued a formal ethics number (NWU-01736-24-A4).

Table 2: Participating schools and respondent classifications

School Name	Educators	Admin & Personnel officers	Principal SGB & SMT Members	Total
Ihsaan Girls College	14	0	0	14
Al Fallah College	29	3	2	34
Orient School	28	5	1	34
Curro Heritage House	19	4	1	24
Star College	40	4	3	47
Al Ihsaan Boys School	7	1	3	11
Ihsaan Boys College	10	1	1	12
Kingsword Academy	7	0	0	7
MFC Christian School	8	1	1	10
Mohammed Ebrahim School	21	0	0	21

Phoenix Muslim School	11	0	0	11
Sathya Sai School	17	0	2	19
Total	**211**	**19**	**14**	**244**

The data analysis was conducted using IBM's Statistical Package for the Social Sciences (Version 29) (IBM Corp., 2022a). The analyses include normality tests (kurtosis and skewness), reliability(Cronbach's coefficient alpha), sample adequacy (Kaiser's criterion), sphericity (Bartlett's test) and structural validity (exploratory factor analysis) (Field, 2017; Cortina,1993; Cassim, 2024; Imandin *et al.*, 2016; Tshivashe, 2023; Pallant, 2020).

7. RESULTS

7.1 Suitability of the data

7.1.1 Cleaning of the data

The dataset was cleaned in three steps to eradicate potential data errors (Pallant, 2020). This included 1) Calculating minimum and maximum values to identify data-capturing errors and remove any out-of-data-range errors outside the Likert scale used, 2) Screening and replacing missing values statistically with IBM SPSS (Version 29) so that the IBM AMOS software can calculate modified indices that are used in developing the structural model (Arbuckle, 2021; IBM Corp., 2022a; 2022b). 3) Finding and correcting any other errors. All 244 responses were usable after cleaning the data.

7.1.2 Normal distribution of data

Normality measures the data's skewness and kurtosis in relation to a normal distribution curve. Perfect normal distributed data has kurtosis and skewness values of zero. The four perspectives' skewness scores show several criteria exceeding the conservative margin of (-0.5≤Skew≤0.5). Some variables are more strongly negatively skewed (-1≤Skew≤1), meaning most data points are located to the right of the normal distribution (Pallant, 2020). However, according to the Central Limit Theorem, skewness is not problematic for large samples (n>20); this study's sample was 244 (IBM Corp., 2022a). Table 2 presents the normality statistics, which include only variables with questionable skewness and kurtosis, i.e., those with values exceeding 1 or below -1. (These statistics are bold typed in the table.)

Table 3: Normality statistics, means and standard deviations

Variable Code	N	Min.	Max.	Mean	Std. Dev.	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
IP11	221	1	5	4.53	0.917	**-2.317**	0.164	**5.354**	0.326
RP2	245	1	5	4.36	0.763	**-1.314**	0.156	**2.441**	0.310
RP3	244	1	5	4.43	0.678	**-1.180**	0.156	**2.167**	0.310
RP4	242	1	5	4.17	1.053	**-1.474**	0.156	**1.891**	0.312
RP6	233	1	5	4.05	1.041	**-1.144**	0.159	0.974	0.318
RP9	244	1	5	4.25	0.910	**-1.465**	0.156	**2.324**	0.310
RP10	245	1	5	4.37	0.739	**-1.393**	0.156	3.081	0.310
RP11	245	1	5	4.38	0.751	**-1.034**	0.156	0.851	0.310
RP12	244	2	5	4.41	0.751	**-1.188**	0.156	0.993	0.310
LG1	244	1	5	4.31	0.742	-.990	0.156	**1.223**	0.310
LG3	244	1	5	4.33	0.785	**-1.268**	0.156	**2.099**	0.310
LG4	241	1	5	4.51	0.678	**-1.440**	0.157	**2.767**	0.312
LG5	243	1	5	4.23	0.809	**-1.002**	0.156	**1.196**	0.311
LG6	242	3	5	4.61	0.560	**-1.094**	0.156	0.210	0.312
LG7	244	2	5	4.52	0.611	**-1.020**	0.156	0.567	0.310
LG8	242	1	5	4.22	0.820	**-1.254**	0.156	**2.241**	0.312
LG9	242	1	5	4.24	0.791	**-1.378**	0.156	**3.291**	0.312
LG10	241	1	5	4.35	0.755	**-1.497**	0.157	**3.759**	0.312
LG11	241	1	5	4.25	0.735	**-1.009**	0.157	**2.044**	0.312
LG12	242	1	5	4.21	0.873	**-1.245**	0.156	**1.870**	0.312
LG13	240	1	5	4.25	0.837	**-1.155**	0.157	**1.613**	0.313
LG14	244	1	5	4.08	0.869	-.986	0.156	**1.480**	0.310

Kurtosis refers to the data's "peakedness", and skewness refers to the data distribution (Field, 2017; Pallant, 2020). A positive kurtosis (or leptokurtosis) indicates that the data is relatively "highly peaked" compared to the normal bell curve (Pallant, 2020), meaning that the distribution is more heavily tailed than the normal distribution (Cross Validated, 2017). This means that more values are closer to the mean, so the heavy-tailed outliers' data will inflate standard deviation values (McLeod, 2023; Stack Exchange, 2016). The kurtosis

results for all four antecedents showed that the variables are within conservative acceptable deviation variances (-1 ≤ kurt ≤ 1) (Tshivhase & Bisschoff, 2023; Field, 2017). However, when analysing behavioural data (like performance management data), McLoud (2023) suggests using less strict kurtosis margins (-3≤Kur≤3). All but three variables fall within McLoud's acceptable variation (see Table 1). These criteria are: *IP11: The school has a good record with a high Grade 12 pass rate* (5.354), *LG9: The schooling staff has a sense of ownership and responsibility* (3.291), and *LG10: The school staff treats each other with respect* (3.759). In practice, this means that most respondents perceived these criteria similarly, but a few differed significantly (heavy-tailed outliers). These criteria were subjected to the stringent Kolmogorov-Smirnov test for normality (see Table 3) to determine whether they could be used or discarded (IBM Corp., 2022a).

Table 4: Tests of normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
IP11	0.418	216	<0.001	0.571	216	<0.001
LG9	0.262	216	<0.001	0.759	216	<0.001
LG10	0.279	216	<0.001	0.729	216	<0.001
a. Lilliefors Significance Correction; Significance @ p≤0.05						

All three criteria's Kolmogorov-Smirnov tests returned significant p-values (p≤0.05). This means that these three criteria should be retained for analysis because they have acceptable distribution normality. The Shapiro-Wilk p-value statistic confirms these findings (p≤0.05). It is concluded that the data's skewness and kurtosis are suitable and can be used for further multivariate statistical analysis (IBM Corp., 2022b). No criterion should be discarded from the study.

7.1.3 Sample adequacy, sphericity and reliability

Only suitable data can be used in multivariate analysis, such as confirmatory factor analysis or structural equation modelling. As such, the sample must be adequate (possessing sufficient data entries) (Kaiser, Meyer & Olkin test), possess acceptable sphericity (Bartlett's test), and the data must be reliable (Cronbach's coefficient alpha). Table 4 shows that the sample is adequate because all four of the antecedents' Kaiser, Meyer, and Olkin scores exceed 0.70 with ease. Likewise, Bartlett's Sphericity tests are significant (p≤0.05) (Pallant,

2020; Field, 2017). The data are reliable and exhibit satisfactory internal consistency, as indicated by Cronbach's alpha coefficients, with all four antecedents in the model easily exceeding the required 0.70 coefficient (Field, 2017; Pallant, 2020). This is also true for the sub-antecedents. However, only one measuring criterion loaded onto the sub-antecedent *Internet;* hence, the reliability cannot be calculated. Table 4 shows the reliability coefficients for the antecedents and sub-antecedents.

Table 5: Reliability, sample adequacy and sphericity of perspectives and sub-perspectives

Perspectives	**Cronbach's alpha (Reliability)**	**KMO (Sample adequacy)**	**Bartlett (Sphericity)**	**Variance explained**
Student perspective	0.933	0.940	p≤0.05	61.30%
Student academic performance	0.926			
Good behaviour of the students	0.776			
Internal perspective for	0.874	0.857	p≤0.05	66.35%
academic excellence	0.871			
Process for academic excellence	0.741			
Process of student behaviour				
Learning and Growth	0.944	0.920	p≤0.05	62.12%
Perspective	0.933			
Excellent teacher quality	0.907			
Adequate infrastructure	*0.852*			
Functional classes and	*0.770*			
toilets	***			
Electricity & water				
Internet				
Resource perspective	0.873	0.831	p≤0.05	64.38%

n=244

The alpha coefficients are satisfactory. Hence, it is concluded that the data are reliable and suitable for further analysis. Table 4 also shows the variance explained by each antecedent and its respective sub-antecedents. The rule of thumb suggests that a factor (in this case, an antecedent) should explain at least 50% (preferably 60%) of the variance (Hair, 2012; Field, 2017). The sample adequacy 0.812 exceeds the required 0.70, and the sphericity [$\chi^2(1891) = 5764.114$, p≤0.01] is also satisfactory. Table 4 shows that all the perspectives

pass the tests easily, indicating that the data is suitable for validation with multivariate analysis.

7.2 Validity of the data:

The validity of the data and the measuring instrument was tested using exploratory factor analysis (Rehman *et al.*, 2025; Imandin *et al.*, 2016; Bisschoff & Salim, 2014; Moolla & Bisschoff, 2012) with the varimax rotation because varimax aims to maximise the variance explained (Maskey *et al.*, 2021; Field, 2017). Table 5 shows the results of the exploratory factor analysis. The table includes the factor loadings, shows the variance explained and the factor names.

Table 6: Factors and factor loadings

STUDENT PERSPECTIVE (15.51%)				INTERNAL PERSPECTIVE FOR ACADEMIC EXCELLENCE (7.94%)			LEARNING AND GROWTH (16.46%)			RESOURCE PERSPECTIVE (12.20%)		
Student academic excellence (53.24%)		**Good behavior of students (8.06%)**		**Process for academic excellence (24.40%)**		**Process of students' behavior (56.94%)**	**Excellent teacher quality (32.95%)**		**Adequate infrastructure (69.01%)**	**Quality of learning facilities (25.53%)**	**Safe & Reliable infrastructure (24.07%)**	**Adequate water supply (14.95%)**
Positive learning attitude	*Academic discipline*	*Respons-ibility*	*Positive recognition*	*Satisfaction with school*	*Academic excellence*		*School culture*	*Respect & fairness*				
SP1 0.728	SP7 0.606	SP12 0.806	SP14 0.878	IP1 0.887	IP8 0.766	IP5 0.868	LG1 0.700	LG2 0.628	LG9 0.751	RP5 0.790	RP1 0.755	RP11 0.866
SP2 0.761	SP9 0.751	SP16 0.726	SP15 0.786	IP2 0.878	IP10 0.607	IP6 0.882	LG7 0.634	LG3 0.812	LG14 0.872	RP6 0.726	RP2 0.893	RP12 0.880
SP3 0.772	SP10 0.728	SP17 0.853		IP3 0.906	IP11 0.607	IP7 0.696	LG8 0.628	LG4 0.840	LG15 0.864	RP7 0.600	RP3 0.832	
SP4 0.706	SP11 0.833	SP18 0.809		IP4 0.890	SL1 0.657	IP9 0.511	LG10 0.784	LG5 0.745		RP8 0.450	RP4 0.506	
SP5 0.569	SP13 0.705				SL2 0.815		LG11 0.661	LG6 0.565		RP9 0.536		
SP6 0627	SP19 0.565				SL3 0.737		LG12 0.700			RP10 0.595		
SP8 0.630							LG13 0.737			RP13 0.701		
31.15%	**30.15%**	**43.42%**	**25.83%**	**35.35%**	**31.00%**	**56.94%**	**24.09%**	**24.08%**	**69.01%**	**25.53%**	**24.07%**	**14.95%**

The factor structures (as detailed in Table 5) are modelled in Figure 2. In this model, the four antecedents and their sub-antecedents are shown in three levels. The model explains the contribution of each antecedent or sub-antecedent to secondary private school performance.

Figure 2: The empirically validated model

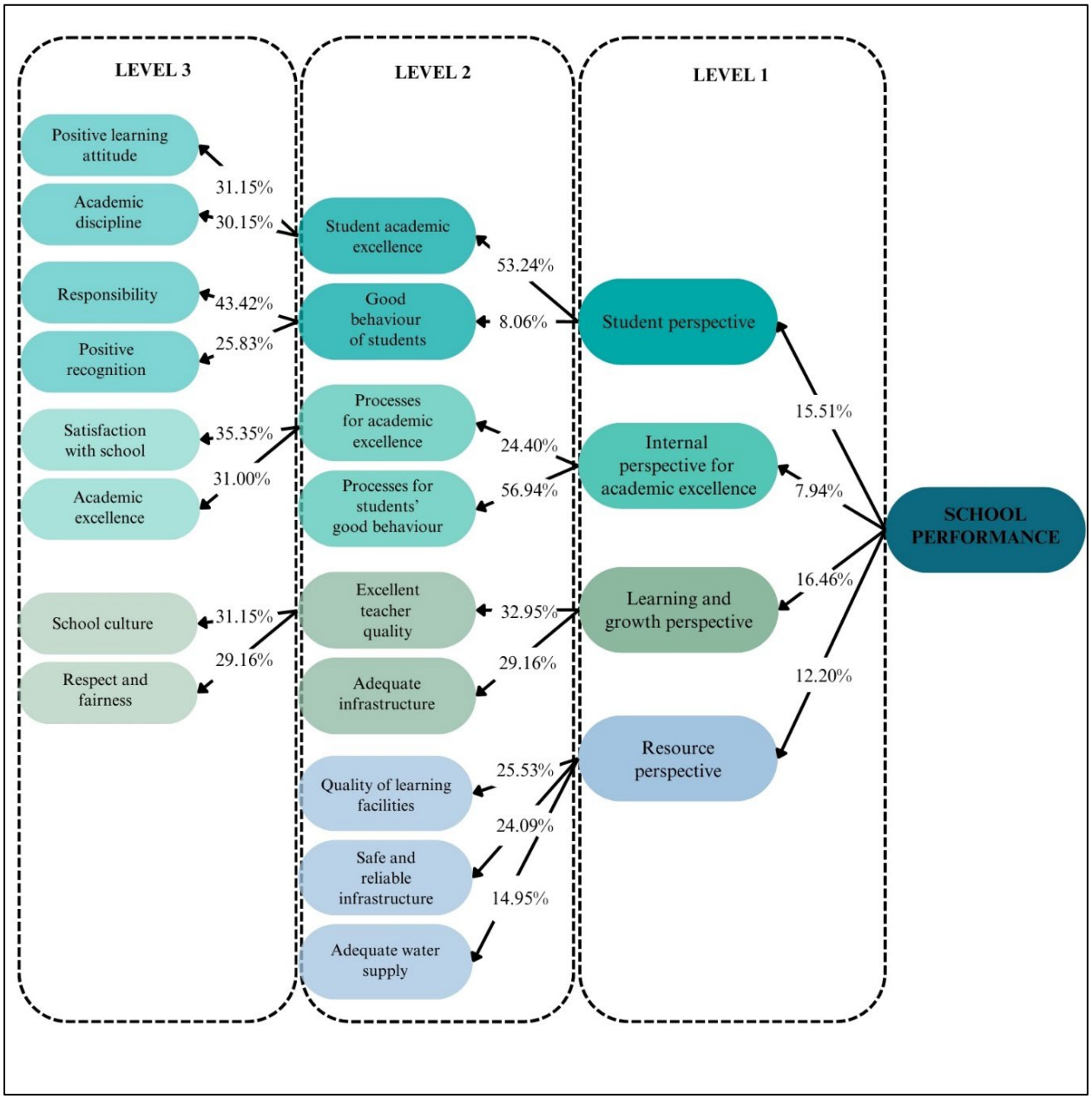

Figure 2 shows that the antecedent *Student perspective* contributes 15.51% to *School performance*. However, the sub-antecedents *Student academic excellence* and *Good behaviour of students*, respectively, contribute 53.24% and 8.06% to the *Student perspective*. Likewise, the third-level sub-antecedent also contributes to each of the sub-antecedents on the second level of the model. Table 6 shows the direct influence of each sub-antecedent on school performance. For example, the third-level antecedent, a *Positive learning attitude*, contributes to *Student academic excellence* (with a factor of 31.15%), which in turn contributes to the *Student perspective* (with a factor of 53.24%), ultimately contributing to the *School performance* (by 15.51%). This means that the direct effect or contribution of a *Positive learning attitude* to *School performance* is 2.50%. Likewise, *Academic discipline* contributes to *School performance* with 2.40%. Table 6 shows these direct influences of the sub-antecedents on *School performance*.

Table 7: Direct contribution of sub-antecedents on School performance

Level 2 Sub-antecedent	Influence	Level 3 Sub-antecedent	Influence
Student academic excellence (SAE)	8.26%	Positive Learning Attitude (PLA)	2.50%
Good behaviour of students (GBS)	1.25%	Academic Discipline (AD)	2.40%
Processes for academic excellence (PAE)	1.93%	Responsibility	0.54%
Processes for good behaviour (PGB)	4.52%	Positive Recognition (PR)	0.32%
Excellent teacher quality (ETQ)	5.42%	Satisfaction with School (SS)	0.68%
Adequate infrastructure (AI)	4.79%	Academic Excellence	0.60%
Quality of learning facilities (QLF)	3.11%	School Culture	1.69%
Safe and reliable infrastructure (SRI)	2.93%	Respect and fairness	1.59%
Adequate water supply (AWS)	1.82%		

Table 6 shows that the second level sub-antecedent, Student academic excellence, has the largest direct influence on *School performance* (8.26%), followed by *Excellent teacher*

quality (5.42%). School managers should thus focus on these antecedents first to maximise the benefits of their managerial interventions. The third-level sub-antecedent, *Positive recognition,* has the lowest direct influence on school performance and is not a priority in improving school performance. The influence of the other sub-antecedents is interpreted similarly.

8. ACCEPT OR REJECT THE HYPOTHESES

Based on the results, the hypothesis *Ho: No significant positive effects exist between the four antecedents, and the performance of a private secondary school* is rejected. Hypothesis *H_1: Significant positive effects exist between the four antecedents and the performance of a private secondary school,* and all four of its sub-hypotheses (H_{1a}, H_{1b}, H_{1c} and H_{1d}) are accepted.

9. DISCUSSION

Three levels of antecedents and sub-antecedents were identified from the statistical analysis. It is encouraging that the original four antecedents identified by the systematic literature review (*Student perspective, Internal perspective for academic excellence, Learning and Growth Perspective* and the *Resource perspective*) (Nag *et al.*, 2025) could be retained as the first-level antecedents. These antecedents collectively account for 52% of the variance. This approach of identifying level 1 antecedents dovetails well with other business performance models. JAG Consulting Services (2025) tracks key performance indicators, such as graduation rates, university admission rates, and standardised test scores, in private schools to maintain growth and attract students. Likewise, a study by the Centre for Development and Enterprise (CDE, 2020), recently confirmed by Kristoff (2024), highlights that private schools are increasingly popular among parents who are dissatisfied with public education. As a result, private schools must measure performance to demonstrate satisfactory education levels and facilitate the schools' overall improvement.

The results also indicated the significance of academic performance by identifying several related sub-antecedents, namely *Student academic excellence* (53.24%), *Process for academic excellence* (24.40%), *Excellent teacher quality* (32.95%), *Academic excellence*

(31.00%) and *Academic discipline* (30.15%). In this regard, many private schools do not use the Department of Basic Education's National Senior Certificate but choose internationally recognised quality standards by adhering to the Umalusi Council's quality standards. As a result, private school students write the Independent Examiners Board's (IEB, 2025b) international qualification examinations to verify their academic credibility and maintain excellent academic performance.

Market competitiveness, student recruitment and growth are also key performance indicators. The *Learning and Growth Perspective* accounts for 16.64% of the school's overall performance. Private schools in South Africa are gaining market share. According to the Department of Basic Education (DBE, 2024) reported that the proportion of students attending private schools versus public schools increased from 2.5% in 1999 to 5% in 2023. (Noting the increasing number of high school students over these years, the real numbers have consequently more than doubled.) The *Quality of teachers* (32.95%) and *Adequate infrastructure* (29.95%) significantly contribute to market attractiveness, competitiveness and, resultantly, the school's growth. Interestingly, the *Resource perspective* (12.20%) also identified detailed infrastructural performance areas. They are a *Safe and reliable infrastructure (24.09%)* and an *Adequate water supply* (14.95%). These factors, along with sufficient resources, create a cycle in which good teachers are attracted to better resources (Rompho, 2020). These, and other factors, contribute to the overall *Satisfaction with the school* (35.35%) (Firmandani *et al.*, 2023; Funeka *et al.*, 2023). The final model (as depicted in Figure 2) was successfully validated with empirical data. The model effectively illustrates the impact of antecedents and sub-antecedents on school performance, and postulates a scorecard that school boards, principals, investors and other related stakeholders can use to measure, manage and track the performance of private secondary schools. Continuous measurement can also provide a longitudinal performance map, offering insight into how well managerial interventions are (or are not) effective.

10. CONCLUSION

In this article, multivariate statistics are used to validate a new model (scorecard) for measuring the performance management of private secondary schools in the eThekwini

district of Durban, KwaZulu-Natal, South Africa. The results are novel and demonstrate that the model can be used as a scorecard to measure and manage performance. The model empirically demonstrated linear relationships between the antecedents and sub-antecedents, as well as their respective influences on the performance of a secondary private school.

This model can, therefore, be applied as managerial tool by school managers, practitioners, principals, and members of the School Governance Board to 1) understand how the respective antecedents and sub-antecedents (perspectives and sub-perspectives) impact the school's performance, 2) measure the actual performance of the school, 3) develop tailor-made managerial interventions to improve school performance, 4) strategically plan and target performance development areas in the medium to long run, and 5) provide feedback on the success or failures of managerial interventions. Additionally, the validated model can also be used as a basic education consulting tool to improve in overall performance of private schools. Further research could investigate the validity of the model in other private schools or educational settings, such as in primary or pre-primary schools. This model also contributes to the academic body of knowledge of South African private secondary education.

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CHAPTER 5: ARTICLE 4

MEASURING THE PERFORMANCE OF PRIVATE SECONDARY SCHOOLS IN KWAZULU-NATAL, SOUTH AFRICA

This article is finalised and ready to be submitted to an academic journal. The authors are currently identifying suitable Scopus Q1 and Q2 journals to which to submit the article.

Measuring the performance of private secondary schools in KwaZulu-Natal

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Abstract

The paper addresses basic education and proposes a holistic development model for South African schools, focusing on a targeted approach. The study aims to contribute to achieving United Nations Sustainable Development Goal 4, which is to ensure inclusive and equitable quality education while promoting lifelong learning opportunities for all by 2030. Private schools in South Africa lack clear performance objectives, inadequate monitoring and evaluation systems, and limited data-driven decision-making procedures. This study develops a comprehensive performance management model for private secondary schools in South Africa, comprising four steps, to address the inadequacies of existing international and public sector frameworks. Stages 1 and 2 developed a conceptual model using a systematic theory review. This study focuses on Stage 3 (model validation) and Stage 4 (practical implementation) using a positivist approach. Based on Kaplan and Norton's Balanced Scorecard, the model comprises four key perspectives: *Students, Academic excellence, Learning and growth,* and *Resources*. Empirical validation with confirmatory factor analysis used data from 244 respondents across 12 private secondary schools in the eThekwini district of Durban, South Africa, confirmed the model's structural validity through good normed and non-normed fit indices, including the Comparative Fit Index (CFI), Normed Fit Index (NFI), and Tucker-Lewis Index (TLI). However, the Root Mean Square Error of Approximation (RMSEA) indicated marginal to poor absolute fit, revealing significant positive and negative intercorrelations within the Learning and Growth Perspective, particularly concerning staff respect and valuing student input. All the hypotheses regarding positive relationships between antecedents and sub-antecedents were accepted. Stage 4 implementation demonstrated an overall satisfactory performance rating of 3.85 on a 5-point scale. The Student Perspective scored lowest (3.39), identifying it as a development priority (scores 3.0–3.5). This was primarily attributed to inadequate student preparation, with learners' thorough reading of material before class, scoring only 2.81, the weakest criterion. These findings establish the model's effectiveness as a strategic management tool for identifying specific areas for improvement. The research highlights critical intervention points for enhancing academic excellence and ensuring sustainable performance in private secondary schools,

particularly addressing student engagement and preparedness, while recognising organisational culture challenges within the Learning and Growth dimension.

1. INTRODUCTION

South Africa has 24,900 schools, with 90.8% being public and the remaining private, primarily serving affluent populations (Cowling,2024). Historically, private schools catered predominantly to white students but have seen increased racial integration and black middle-class enrolment post-apartheid. These schools often feature higher family income levels, a predominance of English or Afrikaans speakers, and a small number of international students. Urban private schools exhibit greater diversity than rural ones, with elite institutions differing significantly in quality from more accessible private schools. Despite English-only rules, students often use their home languages informally for social and problem-solving purposes, with code-switching being a common practice. Teacher attitudes toward home language use were often unsupportive, and a lack of home language support negatively impacted learner identities and excluded parents (Pitout *et al.*, 2021). Infrastructure disparities persist, with rural schools most affected. Provincial education spending on infrastructure declined between 2008 and 2011 but improved from 2015 to 2018 due to national grants. Infrastructure challenges in schools in the Northwest Province remain widespread, reflecting racial and socioeconomic disparities, with issues ranging from structural damage, such as blown-off roofs and cracked walls, to overcrowding, inadequate fencing, and insufficient access to water and sanitation (SAHRC, 2023).

Performance measurement is vital in this context, as private schools must perform academically to attract top talent. Financially, they compete against other businesses, such as retail, manufacturing, or banking, to attract investments from private investors or equity funds. Poor performance in any business, academic, or financial context will be detrimental to the viability of private schools. This postulates an urgent need for school management and school boards to measure performance holistically to remain competitive. In practice, private school managers serve two masters: investors seeking a profitable return on investment (ROI), and the customers (students and parents) who demand superior academic performance. It is, therefore, vital that managers measure the performance of private secondary schools**.** In this context, developing a scorecard-based model as part of a school's strategic framework to manage performance can help private

secondary schools in South Africa to holistically measure and improve their performance (Chang *et al.*, 2013; Rompho, 2020).

2. LITERATURE REVIEW

Traditional performance appraisal in private secondary schools does not provide holistic measures. As such, this study embarked on a journey to develop a customised scorecard-based model to measure private schools ' performance in the South African context. Kaplan and Norton's (1992) scorecard served as a theoretical point of departure to address the challenges in performance management in private secondary schools in South Africa.

2.1 Historical development of performance measurement

A Performance Management System (PMS) enhances employees' productivity by measuring their job performance (Poister, 2008). Other authors opine that performance management is the key process by which organisations set goals, determine standards, assign work, evaluate work, and distribute rewards (Varma *et al.*, 2023). The primary goal of PMS is to help public service workers perform their duties more effectively. A PMS aims to improve civil servants' (such as educators) accountability, performance, communication, efficiency, and productivity. In this regard, Ridwan's (2023) study of schoolteachers and principals found that teacher performance is not stand-alone but is influenced by many factors, including the school management system created by the leader. Another study on school principal leadership and teacher professionalism in the learning process at private Madrasah Aliyah schools revealed that leadership is a key determinant in improving teachers' professionalism, school performance, and establishing a conducive learning environment (Warisno & Hidayah, 2022). A strong PMS also fosters IWB (Innovative Work Behaviour) by addressing high distinctiveness, consistency, and consensus among teachers (Bauwens *et al.*, 2023). In public secondary schools in Kenya, it was observed that the principal's reward system plays a crucial role in determining teacher performance, and a proper blend of various types of rewards is necessary to achieve optimal teacher performance (Sakwa *et al.*, 2023).

Evidence suggests that strategic leadership, strategic resource allocation, and strategic incentives have a positive and significant impact on the performance of public secondary schools (Nang'ole & Muathe, 2023; Sengendo & Eduan, 2024). For individuals occupying leadership roles, acquiring knowledge of performance management and understanding the rationale behind its implementation in organisational settings can prove advantageous. Performance management refers to the systematic procedure through which a leader, manager, or supervisor within an organisation monitors and assesses the performance of employees under their supervision. It serves as a viable alternative to the conventional employee evaluation system, enabling managers to assess their employees' performance more comprehensively. A performance management strategy that yields positive outcomes is frequently characterised by its continuous nature, wherein managers are presented with multiple occasions to rectify and acknowledge the efforts of team members (Poister, 2008).

Performance management offers team members numerous opportunities to enhance their work performance. Implementing efficient performance management strategies can empower teams, enabling them to collaborate effectively and strive toward achieving both immediate and long-term organisational goals and objectives. A study by Garengo and Betto (2024) revealed that the shift from a passive-avoidant to a transactional leadership style supports the implementation of a performance measurement system (PMS). Then, further change from transactional to transformational leadership favours the development of an achievement culture and participative performance management practices. Further studies in leadership by Chughtai and Khan (2024) and Garengo and Betto (2024) confirmed that knowledge-sharing behaviour and work engagement mediate the relationship between knowledge-oriented leadership and employees' innovative performance.

Several studies (Nag *et al.*, 2025a, 2025b; Msosa, 2020; Rompho, 2020; Amin, 2021; and others) dealt with teacher or educator performance and school performance, while others focused mainly on analysing the changes in teacher absenteeism as a major in class factor contributing to student performance and effective learning (Jonas, 2011; Rompho,

2020). Jonas (2011) developed a scorecard to monitor and evaluate the governance of special schools in the Northern Cape. This study focused mainly on the governance of these schools. Rompho (2020) attempted to comprehensively develop a scorecard for Thai public schools, revealing a direct link between the different measurement matrices of the scorecard. In contrast, a study by Amin (2021) focused on measuring performance in Islamic Primary Schools using a balanced scorecard. Siburian (2020) was developed to effectively measure performance outcomes in North Sumatra and enhance performance using tools like the balanced scorecard. Gningue *et al.* (2022) investigated the relationship between school climate and teacher leadership development.

Unfortunately, none of these studies specifically addresses the challenges faced by private secondary schools in South Africa. International performance measures lack cultural and African insight and are incomplete for measuring the performance of South African private schools. Managing schools' performance is problematic for principals and school boards. Although there are regulated agreements among board members and principals regarding the specific performance criteria in the public-school management system, this is not the case in private schools. There are disagreements about which criteria require performance management in private schools and what the role is in each case. For example, some members strongly focus on academic performance criteria, while others believe that sports should play a more prominent role due to their marketing value in a private school. Private schools compete in the open market for top pupils against one another, as well as against public schools. As such, private school management must identify the "right" performance criteria and measure these criteria regularly to ensure their managerial actions yield the desired returns. This is problematic because no suitable South African private school performance scorecard could be located.

This study aims to develop a performance scorecard for evaluating managerial performance in private schools nationwide. The focused, tailor-made model to measure the performance of secondary private schools was developed in four stages. Stage 1 involves developing a theoretical model to measure and manage school performance.

Stage 2 entails validating the model empirically, and Stage 3 empirically evaluates the model's fit. In Stage 4, the model is applied to measure the performance of private secondary schools and to evaluate its suitability for practical application. These stages are chronological; each stage builds on the results of the previous stage.

2.2 Stage 1: Developing a theoretical model to measure performance in private secondary schools

This stage employed a systematic literature review methodology to develop a theoretical framework (or scorecard-based model) for measuring the performance of schools in the eThekwini district of Durban, KwaZulu-Natal, South Africa. Kaplan and Norton's (1992) Balanced Scorecard served as a point of departure for the systematic literature review. Using the same concept as a theoretical foundation, this study considered 71 qualitative, 62 quantitative, 4 mixed-methods articles, and 2 generic articles for a systematic review. The final 43 articles (25 quantitative and 28 qualitative studies) were used to identify variables and inter-variable relationships in the theoretical model.

After identifying 220 relevant articles, closer scrutiny reduced the number to 120, and then to 43. These 43 articles were used to develop the antecedents of the theoretical framework that can be used as a scorecard to measure secondary school performance. The results are novel and unique, highlighting the importance of using a structured framework for performance management. The results also provide a basis for the empirical development of a management and consulting tool for the basic education sector. The systematic review identified four antecedents to measure performance. These antecedents are 1) the *Student Perspective*, 2) the *Internal Processes for Academic Excellence*, 3) the *Learning and Growth Perspective*, and 4) the *Resources Perspective*. Three of the four antecedents (except the Resource Perspective) comprise several sub-constructs (see Figure 2).

Implementing a strategic framework for performance management using a scorecard in private secondary schools in South Africa offers significant practical implications (Pereira & Melão, 2012; Dariyo & Turmanggor, 2022). A key implication of this strategic scorecard

is enhanced goal alignment, as the scorecard establishes explicit, quantifiable goals based on the school's mission and long-term vision. By communicating these objectives to teachers and staff, the framework ensures a shared understanding of how individual roles contribute to the institution's success (Williams, 2010; Hasan & Chyi, 2017; Soderberg *et al.*, 2011; Yuliansingh *et al.*, 2024). This fosters collaboration and a sense of purpose among stakeholders. A scorecard also promotes data-driven decision-making by enabling schools to gather and analyse data on academic achievements, attendance, teacher evaluations, and resource allocation (Storey, 2002; Soderberg, 2011; Coşkun & Nizaeva, 2023).

This approach allows administrators to make informed decisions based on evidence, identifying strengths and areas for improvement to refine strategies and interventions effectively. Additionally, the scorecard provides a structured method for monitoring progress through key performance indicators (KPIs) and targets for various aspects of school operations (Hasan & Chyi, 2017; Soderberg *et al.*, 2011; Nugraha, 2020). Continuous evaluation helps detect issues early, ensuring timely interventions and fostering accountability. This practice encourages ongoing improvement, as educators and administrators clearly understand their performance expectations and can take proactive steps to achieve or exceed them.

Figure 1 shows the theoretical model developed from the systematic literature review.

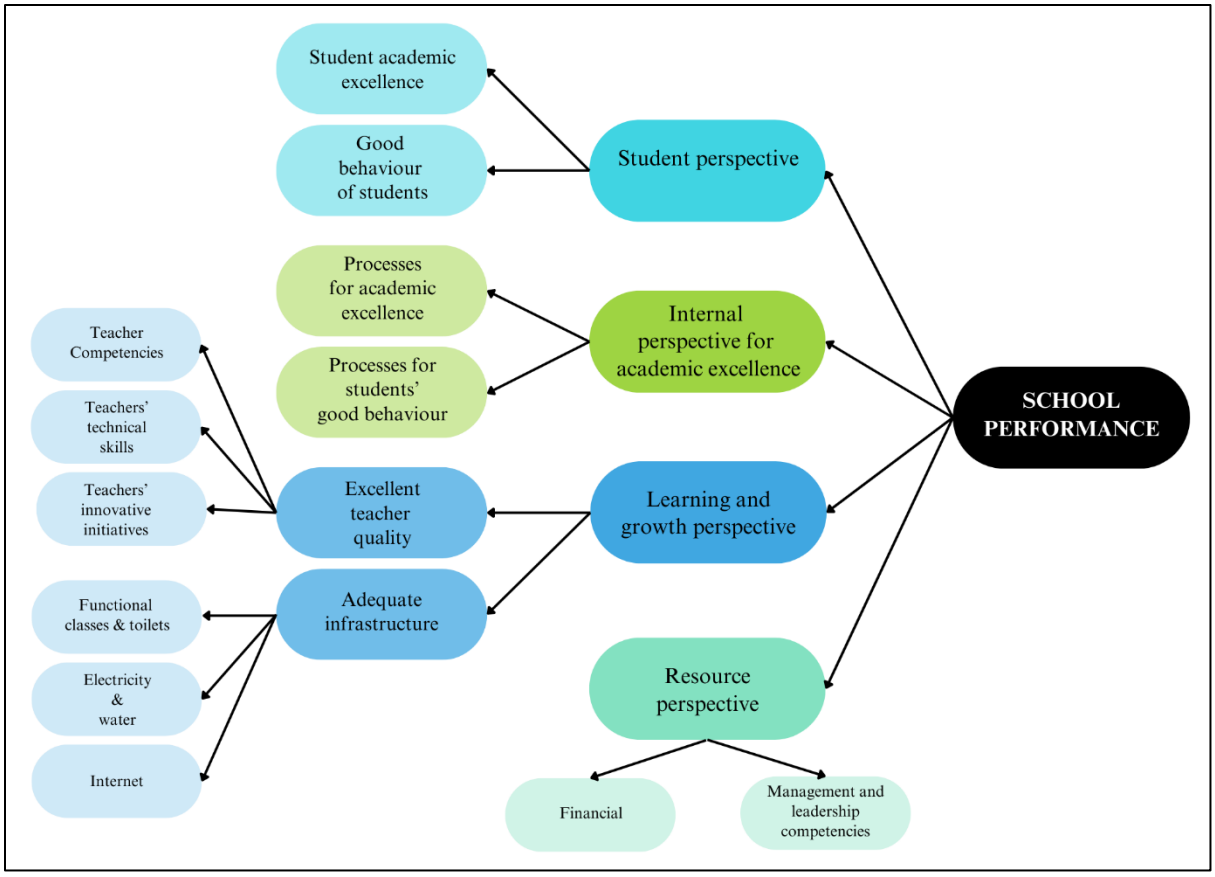

Figure 1 The theoretical model developed from the systematic literature review
(Source: Nag *et al.*, 2025a)

2.3 Stage 2: Empirical validation of the theoretical model

A holistic performance appraisal system for corporations is based on the Balanced Scorecard proposed by Kaplan and Norton (1992). However, this scorecard is insufficient to address issues in performance measurement in education, especially in the context of secondary schools in the private space, and so the author devised and tested a new theoretical model tailored to the needs of South African private and independent schools. Principals, educators/SGBs and practitioners will benefit from this model in its entirety to understand how antecedents and sub-antecedents impact school performance. Rompho (2020) highlights the value of a scorecard-based approach to measure school performance, though the Balanced Scorecard by Kaplan and Norton (1992) is not fully suited for education. Adapting this concept, schools with strong academic indicators are often seen as successful in delivering quality education (Brown & Wohlstetter, 2006;

Rahayu *et al.*, 2023). High academic performance and good student behaviour, reflecting character and spirituality (Saksono & Bernardus, 2023), enhance parent satisfaction, engagement, and school reputation, leading to growth in enrolment and finances (Wei & Ni, 2023). School attributes also play a critical role in parental satisfaction (Rompho, 2020). Parent dissatisfaction with school services can lead to declining enrolment as parents seek better options (Chuktu *et al.*, 2024). Research by Kristanti *et al.* (2024) emphasises the need for collaboration between schools and parents to enhance academic achievement and character development. Innovations by teachers also boost stakeholder satisfaction and academic excellence (Dariyo *et al.*, 2022). Transformational leadership, through idealised influence, intellectual stimulation, and individualised consideration, is a key predictor of academic success (Sengendo & Eduan, 2024). Additionally, effective school leadership practices are strongly linked to improved student achievement (Tan *et al.*, 2024). Zulela *et al.* (2022) identified character education as a significant predictor of academic success, emphasising the importance of the parameter 'Internal Process for Good behaviour'. Distributed leadership and diverse leadership styles also significantly improve learner outcomes (Jambo & Hongde, 2020; Maqbool *et al.*, 2023). In school settings, Gningue *et al.* (2022) found a positive relationship between teacher leadership and school climate.

Two sub-perspectives comprise the "Internal Perspective for Academic Excellence": Processes for Academic excellence and the Processes Facilitating Student Behaviour. Saksono and Bernardus (2023) state that to create an internal process for academic excellence, schools need to use a scorecard as a strategic framework for a holistic evaluation of employees (teachers and staff). Key parameters for academic excellence include the percentage of students excelling in national-level certifications (e.g., Grade 12) and innovations in facilities that enhance stakeholder satisfaction (Dariyo *et al.*, 2022; Rompho, 2020). The Learning and Growth Perspective emphasises teacher quality and infrastructure, as assessed by participation in professional development and innovation initiatives (Ogunbayo & Mhalanga, 2022). Effective teacher training and leadership styles also improve academic outcomes and stakeholder value (Jambo & Hongde, 2019; Maqbool *et al.*, 2023; Gningue *et al.*, 2022). The quality of teachers and adequate

infrastructure, including functional facilities, utilities, and internet connectivity, are critical for learning and growth. These factors, along with sufficient resources, create a cycle where good teachers attract better resources and vice versa (Rompho, 2020). Financial, leadership, and management resources are also vital for school performance. The final model, validated with empirical data, effectively illustrates the impact of antecedents and sub-antecedents on school performance. The empirical validation departed by testing the data for suitability. Firstly, data adequacy was established using Kaiser's criterion (KMO = 0.831; decision rule: KMO ≥ 0.70), as well as determining sphericity and significance ($p \leq 0.05$) of the data (Maskey *et al.*, 2021; Field, 2017; Pallant, 2020). Sufficient data entries are available for multivariate analysis, and the significance and sphericity assumptions are acceptable. The data also possess suitable skewness and kurtosis statistics. Internal consistency and reliability were measured using Cronbach's alpha ($\alpha = 0.873$; decision rule: $\alpha \geq 0.70$). All antecedents and sub-antecedents exceeded the required alpha coefficient of 0.70 with ease. Validity was statistically ensured through a varimax-rotated exploratory factor analysis (Rehman *et al.*, 2025; Imandin *et al.*, 2016; Bisschoff & Salim, 2014). Empirical relationships and factor variances were calculated between the antecedents and their sub-antecedents (see Figure 2).

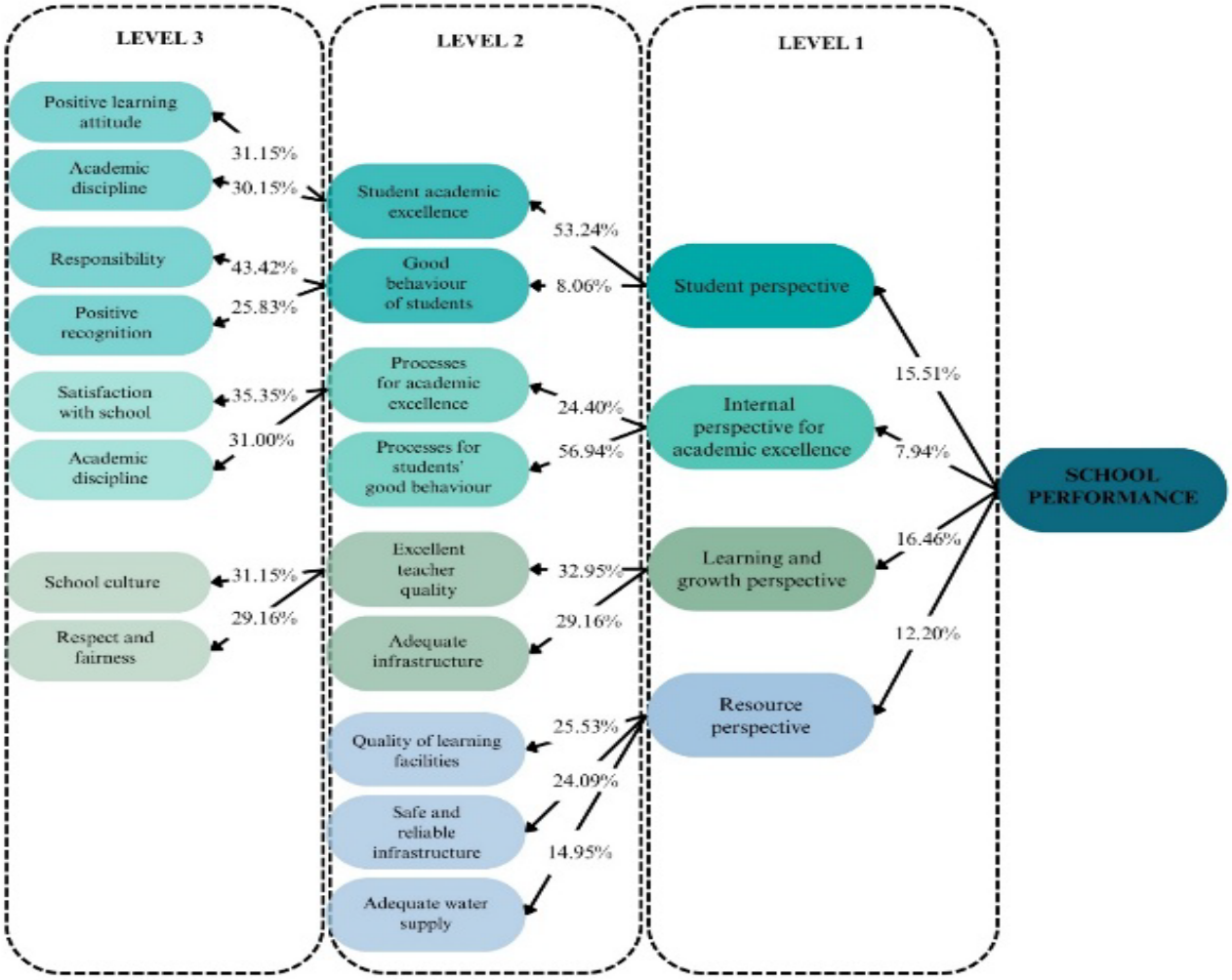

Figure 2: Empirically validated model

(Source: Nag *et al.*, 2025b)

3. PROBLEM STATEMENT

The model to measure and manage performance at secondary private schools has been developed theoretically and validated (Stages 1 and 2). However, before the model can be applied in practice, it must be tested to ensure that a good model fit exists, and if so, the model should be empirically tested in practice to determine the success (or lack thereof) in addressing performance appraisal shortcomings in private secondary schools (Stages 3 and 4). The two final stages have not yet been done, and as such, describe the research problem. The applied measurement statistics are not available for a final evaluation of the measurement properties of the model. Likewise, this lack of results

leaves the verdict open to determine if the empirically validated model is "fit-for-purpose". This study aims to assess the model fit and suitability for practical application.

4. RESEARCH OBJECTIVES

The study postulates two objectives, namely to:

1. Confirm the antecedents of the model structurally and measure each one's model fit (Stage 3); and to
2. Measure the academic performance of private secondary schools (Stage 4)

5. HYPOTHESES

H_0 There are no significant positive relationships between the four *School performance* antecedents and their sub-antecedents.

H_1 There are significant positive relationships between the *School performance* antecedents and their sub-antecedents.

$H_{1.1}$ There are significant positive relationships between the antecedent *Student perspective* and its sub-antecedents

$H_{1.2}$ There are significant positive relationships between the antecedent *internal perspective* and its sub-antecedents

$H_{1.3}$ There are significant positive relationships between the antecedent *Learning and Growth Perspective* and its sub-antecedents

$H_{1.4}$ There are significant positive relationships between the antecedent *Resource perspective* and its sub-antecedents.

6. RESEARCH METHODOLOGY

This study employed an epistemological approach grounded in a positivist paradigm to provide an objective interpretation of events and offer a scientific rationale for its viewpoints. This approach employs systematic hypothesis testing to advance scientific knowledge. Through the accumulation of empirically validated findings, results from hypothesis tests are used to "inform and advance science" (Park *et al.*, 2020).

The population consisted of all teaching, administration and management staff (approximately 900) in 18 private secondary schools in the eThekwini Municipality,

Durban, South Africa. The researcher scheduled meetings with the headmasters and governing school boards of all the schools to explain the purpose of the study, the data collection methodology, and to invite them to participate in the study. A total of 12 schools consented to participate in the study. A gatekeeper was appointed at each school to facilitate the collection of data. Hard copies of the questionnaires were handed to the gatekeepers to distribute and collect the completed questionnaires from the personnel. All completed questionnaires were posted in a "return box and not personally handed to the gatekeeper. This meant that the voluntary participation remained anonymous.

A structured 5-point Likert scale (where 1 signified poor performance and 5 signified excellent performance) was used to collect data. A total of 285 questionnaires were distributed, and 274 were collected. Inferential statistics, using IBM's Statistical Package for the Social Sciences (SPSS) version 29, analysed the data (IBM Corp, 2022a). Confirmatory factor analysis was used to test and validate the model parameters and simplify the models (IBM Corp, 2022b). A total of 285 questionnaires were distributed, and 274 were collected. However, only 244 were usable (comprising 211 educators, 14 Principals and School Boards members, and 19 Administrative staff), yielding an effective response rate of 85%.

The study was scientifically approved by both the North-West University Scientific Committee and ethically cleared by the Faculty of Economic Sciences' Ethics Committee as a minimal risk study. A formal ethics number was issued (NWU-01736-24-A4).

7. RESULTS

The results are discussed in the two stages (as per the objectives).

7.1 Objective 1: Confirm the antecedents of the model structurally and measure each one's model fit

The structural models of the antecedents and sub-antecedents is displayed in Figures 3 to 6. Table 1 shows the model fit for the four models.

The regression weights for the variables mostly exceed the 0.70 threshold. However, scrutiny of the standardised regression weights indicates that, across the models, three

variables (RP8 (0.67), LG2 (0.67), and LG7 (0.69)) have marginally lower regression weights. Likewise, two sub-antecedents, namely *Student behaviour (0.60) and Adequate water supply (0.55),* also showed regression weights below 0.70.

The variables have regression weights marginally below the required 0.70, but the two antecedents show markedly lower weights. However, Steinmetz *et al.* (2009) and Hulland (1999) argue that standardised regression weights below 0.70 should be reviewed for relevance relative to the other variables before elimination. Variables with regression weights lower than 0.40 are redundant, while weights between 0.4 and 0.7 can be retained after consideration because they reflect a moderate influence (Munim, 2022).
Six goodness-of-fit indices were used to evaluate the models. These indices measure the absolute, incremental, and non-normed fit (Hair *et al.*, 2018; Kumar, 2019). Table 2 shows the index values for the *Degrees of freedom* (CMIN/df), *Comparative Fit Index*, *Normed Fit index (NFI), Tucker-Lewis Index* (TLI), and Root Mean Square Error of Approximation (RMSEA) (Xia & Yang, 2019; Henseler *et al.*, 2009; Kumar, 2019). Absolute fit is measured by the RMSEA index (DiStefano & Morgan, 2014). Table 1 shows the model fit indices.

Table 1: Goodness-of-fit indices

Index	**Decision rule**	**Model 1***	**Model 2***	**Model 3***	**Model 4***	**Outcome**
Significance	p≤0.05	Sig.	Sig.	Sig.	Sig.	Good fit
CMIN/df	≤ 5	3.967	4.132	3.648	3.402	Good fit
CFI	≥ 0.95; ≥ 0.85	0.983	0.987	0.990	0.990	Good fit
NFI	≥ 0.90; ≥ 0.80	0.978	0.983	0.986	0.987	Good fit
TLI	≥ 0.95; ≥ 0.85	0.973	0.975	0.981	0.979	Good fit
RMSEA	≤ 0.08; ≤ 0.10	0.099	0.082	0.201	0.327	Marginal (1 & 2); Poor (3 & 4)

** Model 1: Student perspective; Model 2: Internal perspective; Model 3: Learning & growth perspective; Model 4: Resource perspective:*

Figure 3: Student perspective

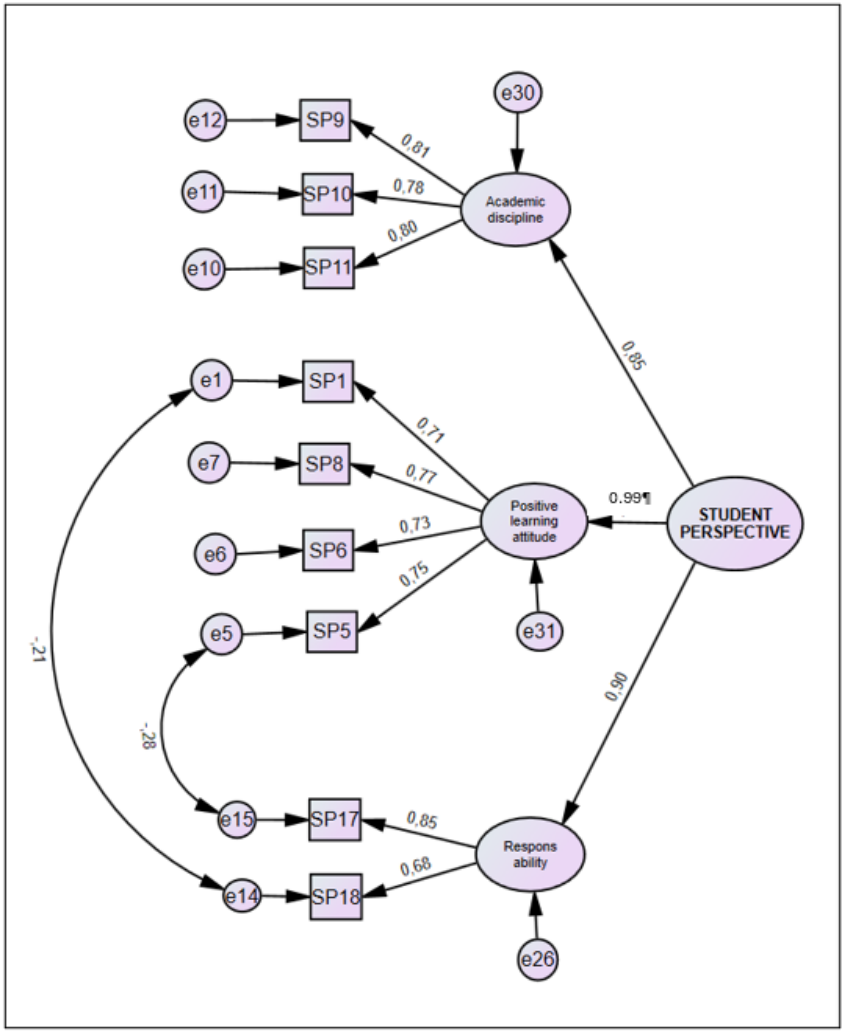

Figure 4: Learning and Growth Perspective

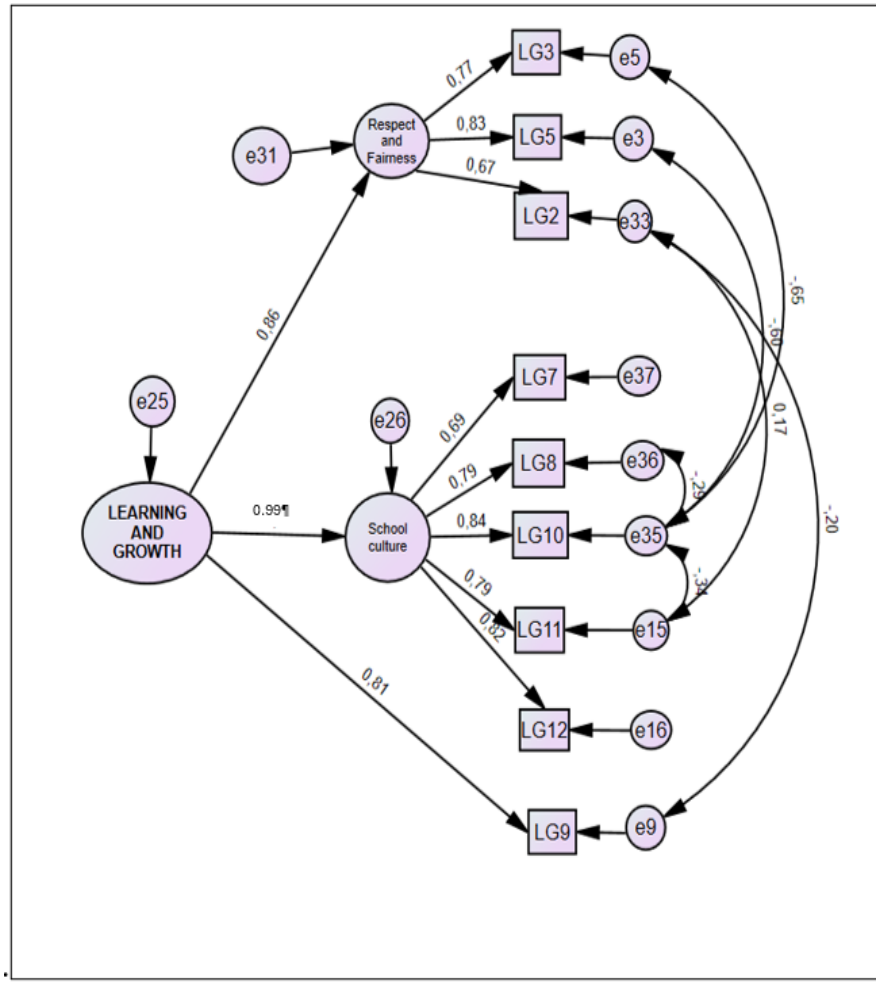

Figure 5: Internal perspective

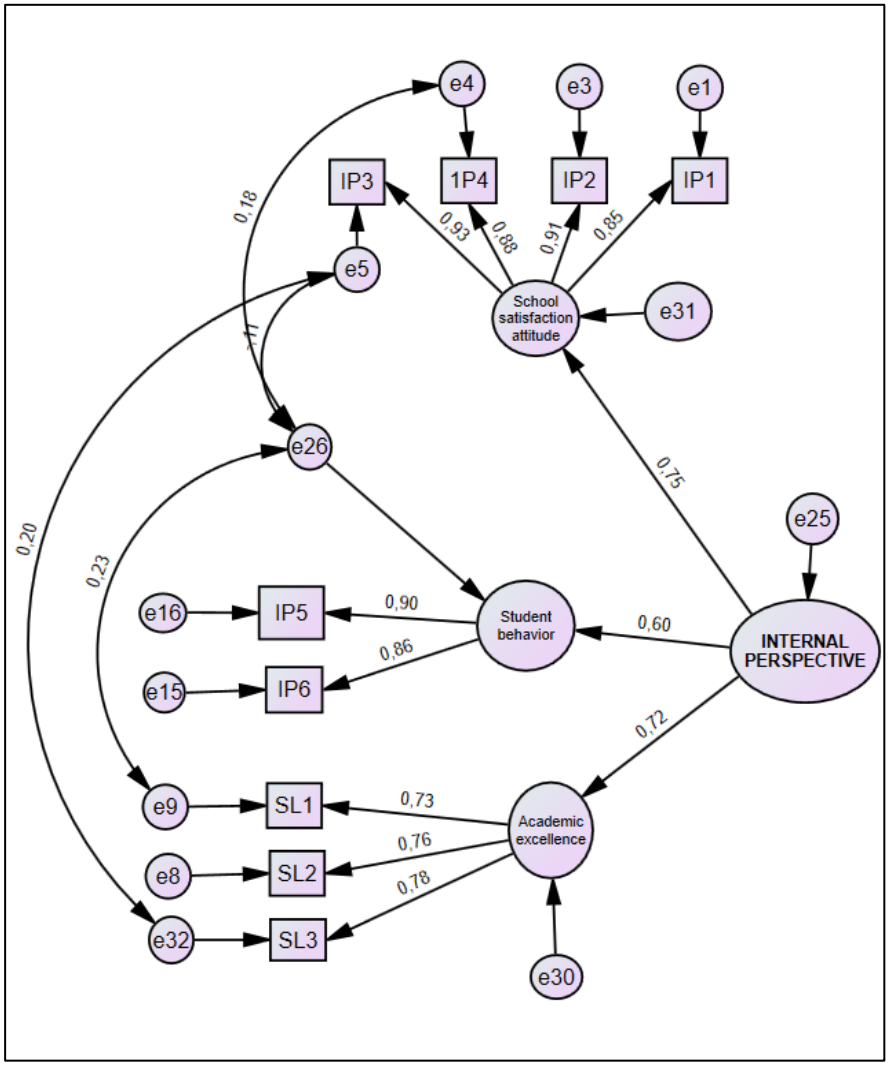

Figure 6: Resource perspective

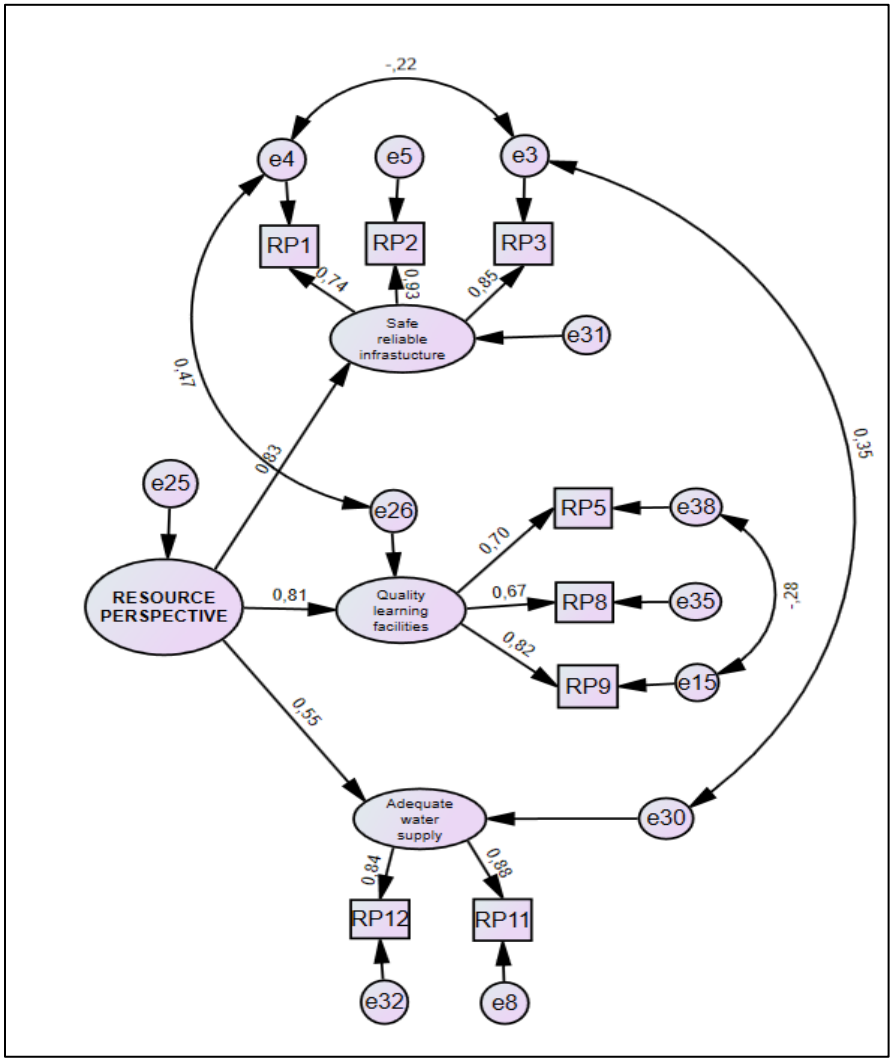

Table 2: Validity and reliability

Index	Decision rule	Model 1*	Model 2*	Model 3*	Model 4*	Outcome
Convergent validity	AVE≤0.05	0.635 0.548 0.592	0.577 0.620			Good fit
Composite reliability	Joreskog's rho ≥ 0.70	0.839 0.829 0.742	0.802 0.891			Good fit

** Model 1: Student perspective; Model 2: Internal perspective; Model 3: Learning & growth perspective; Model 4: Resource perspective:*

Sources: Bentler (1990); Bisschoff (2021); Browne and Cudeck (1992); DiStefano and Morgan (2014); Hair *et al.* (2018); Henseler *et al.* (2009); Kumar (2019); Tucker and Lewis (1973); Xia and Yang (2019).

Based on the findings pertaining to Objective 1, the models can be used to measure the performance of private secondary schools. Therefore, the analysis proceeds with the second objective of the study, namely, to measure the academic performance of secondary private schools.

7.2 Objective 2: Measuring academic performance

The four antecedents' measurement models (as displayed in Figures 1 to 4) are used to measure the performance of private schools in the eThekwini district in Durban, KwaZulu-Natal. The measurement results appear in Table 3. The criteria coding in the tables corresponds to those in Figures 3 to 6 (see Appendix A for the descriptions of the criteria). The values in the table represent the respondents' mean score on the 5-point Likert scale. A mean value of five presents perfect performance, while the midpoint on the scale is three. This means that scores below three indicate poor performance, while scores above three are leaning towards good performance. Table 3 shows the mean values of each antecedent, its sub-antecedents, and the measuring criteria.

Table 3: Performance of private secondary schools

	ANTECEDENT	SUB-ANTECEDENT	CRITERIA
PERFORMANCE (3.85)	**Student perspective (3.39)**	Academic discipline (3.02)	SP9 3.03 SP10 3.24 SP11 2.81
		Positive learning attitude (3.46)	SP1 3.49 SP8 3.37 SP6 3.54 SP5 3.44
		Responsibility (3.69)	SP17 3.68 SP18 3.71
	Internal perspective (3.97)	School satisfaction & attitude (3.97)	IP1 3.99 IP2 3.98 IP3 3.94 IP4 3.97
		Student behaviour (3.62)	IP5 3.69 IP6 3.56
		Academic excellence (4.32)	SL1 4.16 SL2 4.42 SL3 4.39
	Learning & growth perspective (3.92)	Fairness and respect (3.59)	LG2 4.23 LG3 4.33 LG5 4.23
		School culture (4.29)	LG7 4.52 LG8 4.22 LG11 4.25 LG10 4.35 LG12 4.21 LG9 4.24
	Resource perspective (4.15)	Safe & reliable infrastructure (4.26)	RP1 4.00 RP2 4.36

			RP3 4.43
		Quality learning facilities (3.82)	RP5 3.53 RP8 3.68 RP9 4.25
		Adequate water supply (4.39)	RP11 4.38 RP12 4.41

7.3 Discussion of results

The structural models (Figures 3 to 6) show good normed and non-normed fit. All the indices are satisfactory and exceed the required fit index of 0.95 easily. All four models are significant ($p \leq 0.05$) and display acceptable degrees of freedom ($df \leq 5$) (Komang, 2018). However, the absolute fit indices (shown by RMSEA) indicate that two of the models (Model 1: Student perspective and Model 2: Internal perspective) have marginal fit ($RSMEA \leq 0.10$), and the other two models (Model 3: Learning & growth perspective; Model 4: Resource perspective) show a poor fit. None of the models has a good absolute fit index ($RMSEA \leq 0.08$) (Arbuckle, 2021; Henseler *et al.*, 2009).

The poor absolute fit is indicative of strong intercorrelations between some of the variables in the model. In both models (*Model 1: Student perspective* and *Model 2: Internal perspective*), there are no significant strong correlations between the variables ($r \geq 0.50$; $p \leq 0.05$). However, in *Model 3: Learning and Growth Perspective,* there are two significant strong negative correlations between the variable *LG10: The school staff treats each other with respect* and *LG3: Student discipline policies and practices are fair* ($r = -.60$; $p \leq 0.05$). Likewise, there is a significant, strong negative correlation between *LG10: The school staff treats each other with respect* and *LG5: Faculty and staff value what students have to say* ($r = -0.65$; $p \leq 0.05$) (Field, 2017). These correlations suggest that, currently, staff do not value students' input and often fail to treat their colleagues with respect. Both criteria are important in effective school functioning (Yuliansingh *et al.*, 2024). In Model 4: Resource perspective, two medium intercorrelations exist ($0.30 \leq r < 0.50$; $p \leq 0.05$) (Field, 2017). They are between the sub-antecedent *Quality learning facilities* and *RP1: The school has a good infrastructure* ($r = 0.35$; $p \leq 0.05$). This

indicates that an adequate infrastructure should incorporate learning facilities as part of its design for a school to perform effectively. Likewise, the sub-antecedent *Adequate water supply* correlated with *RP3: The water supplied at the school is clean* ($r = 0.47$; $p \leq 0.05$), indicating that an adequate water supply alone is not sufficient; water should be both clean and potable.

Table 3 shows the measured performance of public secondary schools. From the table, it is evident that the schools are performing well overall; none of the criteria, sub-antecedents of antecedents, scored below the midpoint of 3. However, several studies (Bisschoff & Lotriet, 2012; Els & Bisschoff, 2023; Hough & Bisschoff, 1995; Salim, 2013; Weber, 2019) indicated that the midpoint alone is not a sufficient measure. These studies suggest that scores on a five-point scale should be interpreted as follows: unsatisfactory areas of performance (scores below 3), development areas (scores between 3 and 3.5), and satisfactory areas of performance (scores above 3.5). Using this classification, the results show that in the current performance of secondary private schools, none of the antecedents or sub-antecedents are performing unsatisfactorily. However, it is notable that one criterion (SP11: The learner thoroughly reads the material before every class) falls below the midpoint, indicating poor performance. Educators must, in this regard, find a way to engage students so that they come to class prepared. The sub-antecedent Academic discipline (3.02) marginally exceeds this margin. The antecedent *Student perspective* (3.39) and two of its sub-antecedents, *Academic discipline* (3.02) and *Positive learning attitude* (3.46), are both development areas. This means that management should develop targeted interventions to improve this antecedent and its sub-antecedents, enabling satisfactory performance. All the other antecedents and their sub-antecedents are performing satisfactorily, and management should manage to maintain these performance levels. The overall performance rating is 3.85, signifying that private secondary schools are performing satisfactorily.

8. ACCEPTING OR REJECTING THE HYPOTHESES

The null hypothesis is rejected, and the alternative (H_1) hypotheses are accepted.

H_1 There are significant positive relationships between *School performance* and the antecedents. (*Accepted*).

$H_{1.1 \text{ to } 1.4}$ There are significant positive relationships between the individual *School performance* antecedents and the sub-antecedents. (*Accepted*).

9. CONCLUSION

The research successfully concluded the development and testing of a scorecard-based model to evaluate the holistic performance of private secondary schools in South Africa, confirming its suitability for this purpose. The structural validation of the four-perspective model yielded highly satisfactory normative and non-normative fit indices, supporting the hypotheses that antecedents and their sub-antecedents have significant positive relationships. This provides school management and boards with a scientifically validated framework for informed strategic decision-making. However, the structural analysis revealed a poor absolute fit (high RMSEA) in the Learning and Growth and Resource Perspectives, primarily due to significant negative intercorrelations, particularly in the Learning and Growth Perspective. These intercorrelations suggest that staff may not consistently value students' input or treat colleagues with respect; respect is a key element of a healthy school culture. The model's application in Stage 4 showed that, while private schools perform satisfactorily overall (3.85), the Student Perspective (3.39) and its sub-antecedents (Academic Discipline (3.02) and Positive Learning Attitude (3.46)) fall within the development range (3.0 to 3.5). The lowest-scoring criterion, learners thoroughly reading material before class (2.81), highlights the need for targeted management interventions to enhance student engagement and academic discipline. In summary, the model is a robust diagnostic tool for assessing overall performance and identifying specific organisational and student behaviour deficiencies. School management can utilise these insights to develop strategies that enhance the Student Perspective and address cultural issues impacting staff and student relationships. Future research should investigate a comprehensive structural equation model to assess the predictive power of the four antecedents on overall school performance.

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CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This is the last chapter of this study. In this study, the article format was used, and the final chapter serves as a summary of the entire study. The four articles within the study are also summarised briefly in the final chapter. The chapter also provides recommendations based on the study's results and conclusions. The article format used for this thesis allowed for conclusions and recommendations to be provided at the end of each article, outlining the manner in which specific issues can be addressed based on the findings. Consequently, the conclusion and recommendations are made comprehensively in each article; therefore, they are not repeated here. This chapter presents comprehensive conclusions and recommendations for the broader study, rather than reiterating the conclusions and recommendations presented in the individual articles. A pairwise presentation is provided of the conclusions and recommendations made. The meaning is that a recommendation about an explicit conclusion is made to address that conclusion exactly; the numbering of the conclusions and recommendations, therefore, is related. As part of the chapter, potential future research and investigation directions are also identified. This chapter concludes the study with a summary.

6.2 OVERVIEW OF THE STUDY

In this study, the primary objective was to develop a theoretical model to assess the performance of private secondary schools in South Africa. Before developing a theoretical model to measure school performance, it was necessary to identify the antecedents. A review of the literature provided insight into school performance antecedents and measuring criteria. Several factors were examined in this study to identify and scientifically determine the key factors influencing school performance. The next step was to analyse each antecedent in detail, which led to the identification of the measurement criteria. A theoretical model was developed based on these findings, which was then empirically validated using appropriate statistical criteria. Lastly, this study presents a validated functional model to

evaluate the performance of private secondary schools in South Africa. A short summary and the contribution of each article are discussed next.

6.2 SUMMARY OF ARTICLES

6.2.1 Article 1

In this study, a comprehensive performance management scorecard is developed for South African private secondary schools, addressing critical challenges such as unclear performance objectives, insufficient monitoring systems, and limited data-driven decision-making. Based on a systematic literature review, 220 publications were identified from databases such as Scopus, ISI Web of Knowledge, IBSS, and Google Scholar. Based on the strict inclusion criteria, 43 articles (19.55%) were selected for final scrutiny because they focused on performance management, balanced scorecards, education, and secondary schools were deemed suitable for detailed analysis after rigorous screening. It is particularly important since private schools account for less than 10% of South Africa's 24,900 schools and serve affluent communities. Additionally, continued demographic changes are a result of racial integration and infrastructure challenges across the provinces. The theoretical school performance scorecard comprises four key perspectives. The Student Perspective includes standardised test scores, graduation rates, retention and enrolment rates, parent and student satisfaction surveys, and college and career readiness measures. Internal Processes for Academic Excellence include processes that ensure academic excellence, promote good student behaviour, and maintain high pass rates in national examinations. There are two critical components of the Learning and Growth Perspective: teacher quality and infrastructure adequacy, which includes functional classrooms, water and sanitation facilities, electricity supply, internet connectivity, and access to computers. Lastly, the Resource Perspective covers financial stability, resource management, leadership quality, and student-teacher ratios. All four perspectives are interconnected, with adequate resources attracting quality teachers, who in turn attract more resources and improve internal processes, ultimately enhancing student outcomes. It highlights the consistent themes of aligning individual efforts with organisational goals, fostering continuous improvement, and promoting strategic integration throughout performance management definitions from 1992 to 2023.

Research evidence suggests that school leadership has a significant impact on teacher performance and academic excellence, with transformational and distributed leadership styles exhibiting particularly strong effects. Schools can use this scorecard to align their missions and vision with clear, measurable goals, enabling data-driven decision-making rather than relying on intuition. In addition to supporting targeted interventions in areas of weakness, it facilitates continuous monitoring and assessment of progress. There are, however, several limitations.

A narrow focus on private secondary schools may limit generalizability to public schools. While quantitative methodology provides valuable numerical data and statistical analysis, it may not fully capture qualitative nuances such as teaching quality, student engagement levels, and school culture dynamics. Performance evaluations based on historical data may introduce biases and may not adequately reflect current dynamics. Concerns about data accuracy and accessibility could also affect validity and reliability. In the future, research should develop specific measuring criteria for each identified antecedent, empirically validate the antecedents and the scorecard framework as a whole, and implement the scorecard to measure actual school performance. School managers, school boards, and educational researchers can utilise this framework to measure and systematically enhance the performance management of private secondary schools. This serves as a critical foundation for developing management and consulting tools for South Africa's basic education sector, as well as influencing educational policy and practice.

6.2.2 Article 2

The objective of this study, based on a systematic theoretical review of private secondary school performance, is to develop a performance measurement scorecard tailored to the South African context. The review identifies four core antecedents of performance measurement: 1) The Student Perspective, 2) Internal Processes for Academic Excellence, 3) Learning and Growth Perspective, and 4) Resources Perspective. Additionally, several sub-antecedents are derived from these core areas, providing a comprehensive framework for performance evaluation.

The study highlights the need for a specialised tool to measure the effectiveness of private secondary schools, as no existing performance measurement instruments are specifically designed for this purpose in South Africa.

Through the analysis, measurement criteria are developed, offering a structured approach to assess the performance of private secondary schools. The proposed scorecard aims to provide a consistent method for regularly evaluating school performance.

A significant contribution of this study is the development of a questionnaire using a 5-point Likert scale. This questionnaire serves as the basis for measuring the performance of private secondary schools in the eThekwini district of Durban, KwaZulu-Natal. This tool enables schools to gather structured feedback and systematically assess key performance indicators. However, the study acknowledges that the scorecard must undergo empirical validation and practical application to confirm its reliability and accuracy. Future research is essential to test the underlying assumptions of the measurement instrument and refine it further.

By addressing the gap in performance measurement tools for private secondary schools, this study lays the groundwork for enhancing accountability, strategic planning, and informed decision-making in the South African education sector. The proposed scorecard not only evaluates current performance but also identifies areas for improvement, ensuring schools adapt and enhance their effectiveness over time.

6.2.3 Article 3

Performance management systems (PMSs) play a critical role in enhancing leadership and managerial performance in secondary education. These systems are essential for sustaining a competitive advantage in the private school market, as they integrate strategic planning, operational performance, human resources, and feedback mechanisms. Performance measurement and evaluation not only improve organisational performance but also boost employee motivation and job security. While several performance measurement models

exist for public schools, there is a lack of tailored models for private secondary schools in South Africa. Measuring performance in this context is complex, with benefits such as improved accountability and resource allocation, but also challenges like a narrow focus on testing, low motivation, and neglect of socioeconomic factors. Existing methods, such as Whole-School Evaluation (WSE) and Value-Added Models (VAMs), provide some insights but fail to offer a comprehensive framework. This study aims to address this gap by empirically validating a customised performance measurement model for South African private secondary schools. The model, developed through a systematic review of 220 articles, is based on Kaplan and Norton's Balanced Scorecard framework, incorporating four key perspectives: Academic Excellence, Internal Processes, Learning and Growth, and Resources.

Data were collected from 244 respondents across 12 private secondary schools in the eThekwini Municipality using a structured 5-point Likert scale questionnaire. The survey achieved an 89% response rate (n = 274), and the data were tested for reliability (Cronbach's alpha > 0.70) and validity through exploratory factor analysis. The results confirmed the normal distribution of data and validated the relationships between the four antecedents and their sub-antecedents. The Learning and Growth Perspective emerged as the most significant antecedent (16.46%), followed by the Student perspective (15.51%) and the Resource perspective (12.20%). Surprisingly, the Internal Academic Excellence perspective ranked lowest (7.94%). These findings confirm the validity of all four antecedents for measuring private school performance.

The study's core value lies in its practical application. School boards and management can utilise this validated model to evaluate performance, pinpoint areas for improvement, and implement targeted corrective measures to enhance competitiveness. Key intervention areas include addressing student engagement and readiness, as well as improving organisational culture within the Learning and Growth dimension. This research provides a strategic tool for private secondary schools to improve academic performance and achieve sustainable success. By focusing on specific challenges, such as student preparation and

organisational dynamics, the model equips schools with actionable insights to thrive in a competitive market.

6.2.4 Article 4

This article addresses basic education and proposes a holistic development model for South African schools, focusing on a targeted approach to educating students in a holistic manner. The study aims to contribute to achieving the United Nations Sustainable Development Goal 4, which seeks to ensure inclusive and equitable quality education while promoting lifelong learning opportunities for all by 2030. Currently, South African private schools lack clear performance objectives, inadequate monitoring and evaluation systems, and limited data-driven decision-making processes.

The purpose of this study is to develop an integrated performance management model for private secondary schools in South Africa. It addresses the inadequate frameworks that are currently in place in the public and international sectors. As part of the positivist approach, the research will focus on Stage 3 (validation of the model) and Stage 4 (implementation of the model) of the research process.

Based on Kaplan and Norton's Balanced Scorecard model, the model comprises four key perspectives: Student, Internal Academic Excellence, Learning and Growth, and Resources. With the help of the data collected from 244 respondents across 12 private secondary schools in the eThekwini district, the model has been empirically validated, and the model has been proven structurally valid via good normative and non-normed fit indices, including the Comparative Fit Index (CFI), Normed Fit Index (NFI), and Tucker-Lewis Index (TLI). In the current study, all of the hypotheses regarding positive relationships between antecedents and sub-antecedents were accepted. However, the Root Mean Square Error of Approximation (RMSEA) indicated a marginal to poor absolute fit, revealing significant negative correlations within the Learning and Growth Perspective, particularly in relation to the respect staff have for students and the value they place on their input.

During Stage 4, the model yielded satisfactory results. In testing the model in practice, the overall performance rating of secondary private schools was satisfactory, with a score of 3.85 on the 5-point scale. The results show that private schools perform well in terms of the Resource perspective (4.15), the internal perspective (3.97), and the Learning and Growth Perspective (3.92). However, the Student Perspective is classified as a developmental performance area (scoring 3.39; thus falling in the range of scores between 3.0 and 3.5). Further scrutiny indicates that this result is primarily due to insufficient student preparation. Learners often do not come to class prepared and fail to thoroughly read the course material before class (this criterion scores the lowest at 2.81). As such, interventions to improve student self-learning and before-class preparation must be implemented.

The model effectively demonstrates its ability to provide operational and strategic management inputs by identifying specific areas for improvement in school performance. As such, this study highlights key intervention points which can be used to improve academic performance (and other areas of school performance) and ensure sustainable performance in private secondary schools. The model also shows that by addressing student engagement and readiness, it is possible to recognise the challenges associated with school performance. Different performance criteria and perspectives can now be identified, isolated and specifically addressed with focused managerial performance interventions.

6.3 CONCLUSIONS AND RECOMMENDATIONS

The conclusions made and the recommendations discussed next. It is notable that the recommendations follow the conclusions in numerical order. This means that, for example, *Recommendation 1* relates to the afore conclusion(s) drawn in *Conclusion 1*. Although specific conclusions and recommendations are offered in each article, they are not repeated here. This chapter presents general conclusions and recommendations that are not specifically addressed in the articles.

6.4.1 Research methodology

The following conclusions and recommendations are made about this study's research methodology and statistical analysis.

Conclusion 1:

A rigorous, focused, systematic literature study into relevant articles and academic sources resulted in a solid theoretical foundation. The systematic literature review identified 220 articles, which were eventually reduced to 43 usable ones. This process enabled a deeper understanding of the research problem and provided a solid theoretical framework for developing a theoretical model with its corresponding measurement criteria.

Recommendation 1:

1.1 Future researchers can fruitfully use the systematic literature review methodology to constitute a sound literature base for their theoretical framework. This recommendation also extends to other fields of study.

1.2 Using several accredited databases and respectable libraries (such as university libraries) casts the net wide to identify and access quality academic studies and articles.

1.3 Likewise, using the expertise of dedicated librarians at university libraries greatly assists in identifying the quality sources required for a doctoral study.

1.4 Using scientific and theoretically substantiated inclusion and exclusion criteria, researchers can effectively reduce large article numbers in the systematic literature review to a manageable number of articles without omitting crucial information.

Conclusion 2:

Further to Conclusion 1, the solid literature study was essential and valuable in categorising and providing structure to the literature. This allowed for the construction of a theoretical model or framework. Once formalised into a structure, the respective measuring criteria could be developed. As such, modelling the theory enabled the development of a measuring instrument that can be used to measure the performance in South African private secondary schools. This would not have been possible without a proper systematic literature review.

Recommendation 2:

2.1 The sound theoretical framework should be categorised and structured into a model. This enhances understanding and streamlines the model development process.

2.2 The model should be graphically displayed in a visual template (such as a flowchart or diagram) because it enhances understanding and conceptualising the various antecedents and criteria and their inter-relationships.

Conclusion 3:

The statistical analyses were selected specifically to serve the objectives. In consultation with statisticians, the use of quality statistical analysis programmes (IBM SPSS & IBM AMOS, versions 29) ensured the integrity of the analysis and the sound interpretation of the results. The statistical techniques and methodologies employed simplified the model to measure the performance of private secondary schools in South Africa. From the statistical analyses, it is concluded that:

3.1 The Kaiser-Meyer-Olkin (KMO) measure confirmed that the collected data were adequate and suitable for advanced statistical techniques, including multivariate exploratory factor analysis, with KMO values of 0.70 or higher indicating satisfactory sample adequacy.

3.2 Bartlett’s test of sphericity determines whether the data are suitable for exploratory factor analysis. Since the test's values are below the critical threshold of 0.05, it indicates low intercorrelations among the variables, confirming that the data are appropriate for this analysis.

3.3 The data demonstrates strong reliability and internal consistency, as indicated by Cronbach’s alpha coefficients. All four antecedents in the model, along with their sub-antecedents, surpass the required threshold of 0.70. The measuring instrument used to collect the data reflects a high level of reliability.

3.4 Exploratory factor analysis was employed to assess the validity of the measurement criteria for each school performance antecedent in private secondary schools in South Africa. This methodology is widely supported for simplifying models and validating criteria that measure supporting antecedents.

3.5 Confirmatory factor analysis (or structural equation modelling) proved successful in determining model fit and further simplifying the model to measure school performance.

3.6 In summary, it can then be concluded that, in light of the empirical analysis conducted, that:

- The questionnaire developed and used to collect the data was valid.
- The data was highly reliable.
- Likewise, the antecedents and factors are reliable variables.
- The sample drawn was found to be statistically adequate to be used for analysis.
- The data have a low sphericity coefficient, which permits multivariate analysis.
- Models'fit incremental indices are good; however, two of the antecedents have poor absolute fit indices (as per the Root Mean Square Error of Approximation).

Recommendation 3:

In light of the empirical findings and supporting Conclusion 3, the following recommendations are made for future researchers:

3.1 Engage a professional statistician to guide the selection of appropriate statistical techniques aligned with the research objectives.

3.2 Utilise expert statistical support to accurately analyse, interpret, and apply the results to meet the research goals.

3.3 Employ specialised statistical software, such as IBM SPSS (Version 29 or higher), Smart PLS4+ or similar software to analyse the data professionally.

3.4 Ensure the statistician reviews the final document to verify that the results are correctly recorded and applied.

3.5 Additionally, it is recommended that the methodology employed in this study should also be replicated in other studies of a similar nature. Adherence to the above recommendations is essential for successful replication.

6.4.2 Results

The conclusions and recommendations about the results of this study are addressed below:

Conclusion 4 (Article 1):

The conclusion of this article highlights that the South African basic education sector struggles to meet the needs of its citizens. Challenges such as budgetary constraints, political influences, and both micro- and macro-level factors hinder the government's ability to provide adequate public education facilities. This has created an opportunity for private secondary schools in Durban and across South Africa to address these gaps and contribute to the country's educational and economic development.

Entering the private secondary education sector, which is highly regulated with strict quality control measures, requires institutions to register with relevant authorities and meet accreditation standards for their programs. The Department of Basic Education (DBE) ensures that both private and public schools maintain high-quality standards, offering qualifications that align with national and international benchmarks.

Recommendation 4 (Article 1):

This study recommends that further literature reviews be conducted to gain a better understanding of the functioning and competition of private secondary schools within the basic education environment in South Africa. It will also contribute to a better understanding of basic education in other African countries by providing a comprehensive analysis of tailored performance appraisals (similar to strategic scorecards) used by relevant stakeholders. It will enable the development of a questionnaire based on predefined measuring criteria, specifically for private secondary schools.

Conclusion 5 (Article 2):

The article, through a systematic literature review of 220 articles in the education sector, identified 14 key sub-antecedents derived from four main antecedents. Additionally, it established the criteria for measuring these antecedents and sub-antecedents, which can be

used to create a questionnaire for assessing the performance of private secondary schools in South Africa using a strategic performance scorecard. This theoretical model integrates theoretical insights with practical managerial perspectives, building on the foundational Balance Scorecard model introduced by Kaplan and Norton in 1992. While supported by various theoretical studies, the model remains theoretical at this stage. Empirical data collection, validation, and refinement are necessary to eliminate insignificant criteria and enhance the model. Furthermore, the relationships between the four antecedents and the strength of their connections to the sub-antecedents require empirical investigation. Ultimately, this model can serve as the foundation for a customised performance measurement instrument tailored to private secondary schools in South Africa.

Recommendation 5 (Article 2):

The following recommendations were made:

5.1 Additional research is required to validate these four important antecedents, as well as fourteen sub-antecedents, as valid indicators of operational performance in private secondary schools, and a new refined questionnaire can be developed based on the specific measurement criteria for each of these antecedents (as done in Article 3).

5.2 The underlying factors and their measuring criteria can then be empirically evaluated to confirm the existing model and support its use as a strategic scorecard for performance measurement at secondary private schools in the South African context. It is noteworthy that this model is designed to assess private secondary schools' performance and is not suitable for public schools.

5.3 Future research could explore a full structural equation model to test the predictive power of the four antecedents on overall school performance.

Conclusion 6 (Article 3):

This article focuses on the private educational institutions operating in the basic education sector in South Africa. As a basis for developing the theoretical foundation for measuring school performance antecedents (factors that influence school performance), the literature was reviewed on performance measurement of private secondary schools using a balanced scorecard. Sixty-three measuring criteria were developed in questionnaires, administered,

and statistically analysed to confirm their validity, which revealed significant correlations between the main antecedents and their subfactors, which ultimately led to the development of a coherent model for measuring the performance of private secondary schools in South Africa.

Recommendation 6 (Article 3):

A recent literature review was recommended to identify any additional antecedents that may influence performance in private secondary schools in South Africa. In the future, further analysis will be performed to determine whether any correlations are evident, as well as whether there are any significant or insignificant variables.

Conclusion 7 (Article 4):

This article determines the model's fit and suitability for use. Despite two poor absolute fit indices, the model can be considered a good fit based on all the other favourable fit indices. It is also concluded that the model is suitable for use, based on the application where the performance of secondary private schools is measured.

7.1 As such, it is concluded that the model provides a robust diagnostic tool for assessing overall performance and identifying specific institutional and student behaviour deficiencies.

7.2 Using these insights, school administrators can develop strategies that enhance the student perspective and address cultural issues impacting staff-student relationships.

7.3 The simplified model for measuring performance in private secondary schools in South Africa is useful to school managers and leaders, principals, consultants and educational investors.

7.4 As a consequence of the simplification of the model, it is now easier to operationalise it in the context of private secondary schools in the basic education sector of the market, enabling academic research to be applied to practice.

Recommendation 7:

This article presents a valid and usable model to measure performance in private secondary schools in South Africa. It is recommended that the model be used as follows:

7.1 A tool for measuring the performance of private secondary schools in South Africa. Despite the study's value to future researchers, its primary value lies in its practical application for managers.

7.2 A tool for planning, assessing, and monitoring school performance factors by defining school performance scorecards, initiatives, and activities tailored to the South African context. The school board, schoolmaster, and management can now utilise a validated, tailor-made model to assess the performance of South African secondary private schools and implement corrective interventions to enhance their competitiveness.

7.3 The model provides researchers and theoreticians with a theoretical foundation for future performance-related research in private secondary schools.

6.5 AREAS FOR FUTURE RESEARCH

The following broad areas for future research have been identified:

1. It would be worthwhile to investigate further any or all of the four antecedents and fourteen sub-antecedents of the model for measuring performance in private secondary schools.
2. In this study, there were few meaningful correlations between antecedents and sub-antecedents of school performance and their effects on school performance. A future study could investigate whether other significant correlations exist between the antecedents and their sub-antecedents, as well as their impact on school performance. An analysis of this nature may be beneficial to school governing boards, school managers, researchers, and academics in the education sector, enabling them to better understand the role each stakeholder plays in the performance of private secondary schools.
3. An additional study could be conducted to determine the impact of antecedents and sub-antecedents on each of the sub-categories of school performance in order to produce meaningful results. Private secondary schools may find this to be of greater value.

4. Using a strategic scorecard, a comparison of performance measures between a specific international private school in the education sector and private secondary schools in South Africa could provide deeper insights. Due to the rapid and complex changes in the global education landscape, particularly in basic education, this information will be valuable for school governing boards, managers, consultants, and investors in the private basic education sector.

6.6 SUMMARY

In conclusion, the study contributed to the development of a model to measure the performance of private secondary schools in South Africa by creating a strategic performance scorecard tailored to the South African context. The study's primary objective was to achieve this result, and in this regard, it achieved its objectives. Through a summary of each article, this final chapter summarises the highlights of the four articles, illustrating the comprehensive nature of the study. Additionally, this chapter provided further generalised conclusions and recommendations based on the conclusions and recommendations presented in the individual articles.

This study developed an approach to measuring the performance of private secondary schools in South Africa's basic education space, and its results and conclusions can provide guidance for future research and investigation focusing on scientifically sound performance models for assessing the performance of private secondary schools in basic education.

This area requires further research to assist private secondary schools in the basic education sector, governments, and researchers in determining performance measures necessary to meet the growing needs for inclusive, quality, and affordable higher education throughout the South African and African continent. Private and public secondary schools (operating under the basic education aegis) must be better planned and delivered to ensure inclusive, high-quality, and affordable higher education is available to all. This will ultimately lead to the eradication of poverty, the creation of hope and prosperity, and the upliftment of the people of Africa, thereby contributing to the Sustainable Development Goals articulated by the United Nations under Agenda 2063.

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Chapters 2 to 5

See each of the individual articles' reference lists.

APPENDIX A: MEASURE PERFORMANCE IN PRIVATE SCHOOLS

INSTRUCTIONS

Please indicate your agreement or disagreement on the following scale

Strongly disagree	= 1
Disagree	= 2
Neither Agree nor Disagree	= 3

I am a....

School principal	
Educator	
Administrative staff	

EDUCATORS' PERSPECTIVE FOR ACADEMIC EXCELLENCE

Sr. No	Questions	SD	D	N	A	SA
SP1	The learner prepares well for all subjects	1	2	3	4	5
SP2	The learner pays attention and listens to class discussions	1	2	3	4	5
SP3	The learner strives to get good grades in every subject	1	2	3	4	5
SP4	The learner actively participates in in-class discussions	1	2	3	4	5
SP5	The learners do their homework attentively	1	2	3	4	5
SP6	The learner exerts more effort to accomplish challenging assignments	1	2	3	4	5
SP7	Learners prefer to engage in challenging assignments	1	2	3	4	5
SP8	The learner pays undivided attention during his/her study	1	2	3	4	5
SP9	The learner revises class notes properly before every class	1	2	3	4	5
SP10	The learner follows a proper time schedule for study	1	2	3	4	5
SP11	The learner thoroughly reads the material before every class	1	2	3	4	5
SP12	The learners try to "catch up" if they missed a lesson if he/she was absent from any of the classes	1	2	3	4	5
SP13	The learner balances extracurricular activities with their studies	1	2	3	4	5
SP14	The learners prefer that teachers complement them openly in-class	1	2	3	4	5
SP15	The learners appreciate positive feedback from their parents	1	2	3	4	5
SP16	The learner follows the directions given by the teacher	1	2	3	4	5
SP17	The learners aim to deliver their best work	1	2	3	4	5
SP18	The learners are behaving appropriately towards fellow students	1	2	3	4	5
SP19	Learners participate in skills development class activities	1	2	3	4	5

INTERNAL PROCESS FOR ACADEMIC EXCELLENCE						
IP1	The learners like to attend this school	1	2	3	4	5
IP2	The learners are proud to be in this school	1	2	3	4	5
IP3	The learners are looking forward to going to this school	1	2	3	4	5
IP4	The learners are happy to be at this school	1	2	3	4	5
IP5	The school hosts programs in which the community can also participate in	1	2	3	4	5
IP6	The school has several extracurricular activities where communities are involved	1	2	3	4	5
IP7	Parents are involved in the school decision-making process	1	2	3	4	5
IP8	The teachers make a great effort to help students understand academic content					
IP9	The teachers in the school are very supportive in general	1	2	3	4	5
IP10	The learner loves to attend classes because the teacher explains the subject well	1	2	3	4	5
IP11	The school has a good record with a high Grade 12 pass rate	1	2	3	4	5
RESOURCES PERSPECTIVE						
RP1	The school has a good infrastructure	1	2	3	4	5
RP2	The water and electric connections are safe	1	2	3	4	5
RP3	The water supplied at the school is clean	1	2	3	4	5
RP4	The school has a good internet connection in the computer labs	1	2	3	4	5
RP5	Students have access to computer labs all the time	1	2	3	4	5
RP6	The lab instructors are well-trained, and they can help the learners	1	2	3	4	5
RP7	There is a backup generator for an uninterrupted power supply	1	2	3	4	5
RP8	The school has a playground for the students to play in their leisure time	1	2	3	4	5
RP9	The classrooms are nice and brightly lit	1	2	3	4	5
RP10	The teachers place great emphasis on a clean and hygienic school environment	1	2	3	4	5
RP11	The water supply exceeds the school's needs (no water rationing is required)	1	2	3	4	5
RP12	The school has a constant water supply	1	2	3	4	5
RP13	The labs are well-stocked and have all the needed chemicals and equipment to enable teachers to do the experiments					

LEARNING AND GROWTH PERSPECTIVE						
	STUDENT LEARNING	1	2	3	4	5
SL1	The students learn a lot from the assessments	1	2	3	4	5
SL2	The assessments are aligned with learning outcomes	1	2	3	4	5
SL3	There are different forms of assessment used to measure student learning	1	2	3	4	5
		1	2	3	4	5
	STAFF LEARNING & GROWTH	1	2	3	4	5
LG1	Teachers teach one another with respect	1	2	3	4	5
LG2	Students and teachers treat each other with respect	1	2	3	4	5
LG3	Student discipline policies and practices are fair	1	2	3	4	5
LG4	The principal models respectful behaviour	1	2	3	4	5
LG5	Faculty and Staff value what students have to say	1	2	3	4	5
LG6	The Faculty and Staff respect all races and cultures	1	2	3	4	5
LG7	Teachers are respectful of parents	1	2	3	4	5
LG8	Most of the school staff in the institute has a unified vision	1	2	3	4	5
LG9	The schooling staff has a sense of ownership and responsibility	1	2	3	4	5
LG10	The school staff treats each other with respect	1	2	3	4	5
LG11	The staff and students are committed to the school's values	1	2	3	4	5
LG12	The staff is unbiased in all tasks related to the school	1	2	3	4	5
LG13	The school staff voluntarily puts effort into helping students with disabilities	1	2	3	4	5
LG14	The school facilities are well looked after and are up to state standards	1	2	3	4	5
LG15	The school puts equal emphasis on academics as well as sports	1	2	3	4	5
LG16	The school staff has good knowledge in their areas of teaching	1	2	3	4	5

THANK YOU SO MUCH FOR YOUR TIME!

APPENDIX B: ETHICS CERTIFICATE

Private Bag X1290, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Fax: 018 299-4910
Web: http://www.nwu.ac.za

Senate Committee for Research Ethics
Tel: 018 299-484
Feziwe.Mseleni@nwu.ac.za

19 September 2024

ETHICS APPROVAL LETTER OF STUDY

Based on approval by the **Economic and Management Sciences Research Ethics Committee (EMS-REC)** on, 19/09/2024 the Economic and Management Sciences Research Ethics Committee hereby **approves** your study as indicated below. This implies that the North-West University Senate Committee for Research Ethics (NWU-REC) grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

Study title: Developing a performance management scorecard for private secondary schools in eThekwini Municipality

Study Leader/Supervisor (Principal Investigator)/Researcher): Prof. C. Bisschoff

Student: D. Nag (10196145)

N	W	U	-	0	1	7	3	6	-	2	4	-	A	4
Institution				Study Number						Year			Status	

Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation

Application Type:
Commencement date: 19/09/2024 **Risk:** **Minimal Risk**
Expiry date: 19/09/2025
Approval of the study is initially provided for a year, after which continuation of the study is dependent on receipt and review of the annual (or as otherwise stipulated) monitoring report and the concomitant issuing of a letter of continuation.

Special in process conditions of the research for approval (if applicable):

- None.

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, the following general terms and conditions will apply:

- *The study leader/supervisor (principle investigator)/researcher must report in the prescribed format to the EMS-REC:*
  - *annually (or as otherwise requested) on the monitoring of the study, whereby a letter of continuation will be provided, and upon completion of the study; and*
  - *without any delay in case of any adverse event or incident (or any matter that interrupts sound ethical principles) during the course of the study.*
- *The approval applies strictly to the proposal as stipulated in the application form. Should any amendments to the proposal be deemed necessary during the course of the study, the study leader/researcher must apply for approval of these amendments at the EMS-REC, prior to implementation. Should there be any deviations from the study proposal without the necessary approval of such amendments, the ethics approval is immediately and automatically forfeited.*
- *Annually a number of studies may be randomly selected for an external audit.*
- *The date of approval indicates the first date that the study may be started.*
  n the interest of ethical responsibility, the NWU-SCRE and EMS-REC reserves the right to:

- *request access to any information or data at any time during the course or after completion of the study;*
- *to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process;*
- *withdraw or postpone approval if:*
  - *any unethical principles or practices of the study are revealed or suspected;*
  - *it becomes apparent that any relevant information was withheld from the EMS-REC or that information has been false or misrepresented;*
  - *submission of the annual (or otherwise stipulated) monitoring report, the required amendments, or reporting of adverse events or incidents was not done in a timely manner and accurately; and / or*
  - *new institutional rules, national legislation or international conventions deem it necessary.*

The EMS-REC would like to remain at your service as scientist and researcher, and wishes you well with your study. Please do not hesitate to contact the EMS-REC or the NWU-SCRE for any further enquiries or requests for assistance.

Yours sincerely,

Prof Diana Viljoen-Bezuidenhout
Chairperson: NWU Economic and Management Sciences Research Ethics Committee

APPENDIX C: LETTER FROM LANGUAGE EDITOR

Dynamic Language & Translation Specialists

71 Esselen Street,
Potchefstroom
Tel: 018 293 3046
Cell: 082 878 5183
Language@dlts.co.za
CC No: 1995/017794/23

Sunday, 09 November 2025

To whom it may concern

Re: Confirmation of language edit, typography and technical precision

The PhD thesis "**Developing a performance management scorecard for private secondary schools in the eThekwini Municipality**" by **D. Nag** (44772440) was edited for language precision. Direct interview quotations from participants were spell-checked only.

Final, last-minute corrections remain the responsibility of the author.

Officially approved language editor of the NWU since 1998
Member of SA Translators Institute (no. 100181)

Precision ... to the last letter