



Management Accounting Graduate Skills for the Banking Sector: Relevance, Alignment, and Implications in an ODeL Context

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Abstract: This paper investigates whether management accounting graduates can apply theoretical skills learnt from open distance e-learning (ODEL) institutions in the workplace and whether those skills align with employer expectations, especially in the banking sector. By developing a conceptual framework that focuses on the links between management accounting graduate skills and the banking sector's specific requirements and reform strategies, the study provides a structured analysis of how academic training aligns with practical demands. The study utilised qualitative research methodology to explore the experiences and perceptions regarding the relevance, alignment, and implications of management accounting graduates in the South African banking sector. Data for the study were collected through semi-structured interviews. Nineteen bank staff members from three banks and ten academic staff members from an ODeL institution participated in the study. The empirical evidence from the study underscores the need for management accounting education to adapt to the needs and changes in the banking sector. Accordingly, ODeL institutions must provide a flexible learning platform that offers opportunities to incorporate structured knowledge mechanisms within institutions to address technical and analytical skills gaps for management accounting students who can be readily absorbed into the banking sector. Addressing the limitations will improve graduates' employability rate and

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improve the overall quality and relevance of management accounting education in a rapidly changing banking business environment.

Keywords: distance e-learning; institutions; analytical skills; competence; employability

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1. Introduction

Recently, the banking industry has evolved in a new dimension through rapid and fundamental changes driven by a reform-oriented regulatory framework, digitalisation, artificial intelligence, automation, and intensified competition, among other factors. These factors have led the banking industry to increasingly depend on data-driven decision-making, predictive analytics, real-time reporting, and customer-centric financial solutions. Moreover, the current dimension has reshaped the banking industry's operational processes, organisational structures, and, more importantly, its competency performance across the industry. To this end, the banking industry plays a crucial role in the development and growth of economies (Sarwar et al., 2021). Its relevance can be understood through several key functions and contributions, including facilitating economic growth, promoting financial inclusion, implementing central bank-set monetary policies, providing financing for infrastructure, and supporting innovation (Kumar, 2024).

Historically, management accounting is characterised by costing, budgeting, financial analysis, and performance measurement. These skills have evolved into essential knowledge and a broader strategic discipline that integrates analytical digital proficiency and risk modelling expertise for the industry. Moreover, the role of management accountants is continually changing due to growing competition, business uncertainty, innovation, technological advancements, and new market entrants (Ahmed & Ghandour, 2021). The overall use of technology, increased levels of competition, globalisation, and legal liability have raised awareness of the need to develop different and specific competencies among accounting graduates (Eldenburger et al., 2017; Calvert & Kurji, 2012; De Villiers, 2010). Evidence from the banking sector suggests that undergraduate degrees typically provide students with good technical knowledge; however, they often lack sufficient exposure to practical problems and experience in applying strategic thinking (Gunarathne et al., 2021). Because the banking industry needs to meet its operational demands, it requires graduates who can interpret financial and non-financial information, perform analytical interpretation and risk modelling, understand regulatory

requirements, and provide institutional governance and support in a rapidly changing business environment. In the banking industry, these complex analytical responsibilities, coupled with intense business competition, require a range of financial and non-financial information to enable the industry to remain relevant and make effective business decisions amid global financial challenges (Saukkonen et al., 2018; Maina Waweru et al., 2004). On this note, as the banking industry becomes increasingly technology-driven, the gap in technology-related competencies have been identified as one of the reasons for the industry's ineffectiveness in South Africa (Olawajuru & Msomi, 2021; Malan & Dyk, 2021; Kirsten, 2013).

In South Africa, this shift in the banking industry is further affected by the country's complex and interconnected national challenges, such as skills shortages (Andrews & Higson, 2008), a high youth unemployment rate (Van Broekhuizen, 2016), technological adoption (Rebele & Pierre, 2019), and the need to align higher education outputs with the bank specific requirements (Hadid & Al-Sayed, 2021), which increasingly influence the operating environment of the financial services sector. The banking industry remains a major employer of accounting graduates and demands graduates with a variety of competencies and comprehensive technical skills. However, graduates entering the financial sector lack relevant soft and practical skills and information about financial services (Gunarathne et al., 2021), including their responsibility, impact, and significance in the economy; knowledge of the products sold; and an understanding of how the industry's operating model works (Malan & Dyk, 2021; García-Álvarez et al., 2022). For management accounting graduates to be ready for employment in the banking industry, they will need a good balance of technical and soft skills, including digital literacy, applied skills, and communication skills. For example, management accountants have evolved from being data accumulators, financial reporters, data analysts, decision supporters, and business advisers to become business partners (Odia & Oke, 2018). These challenges have heightened focus and underscored the importance of how well university curricula align with industry needs. The banking industry requires graduate accountants to be innovative and able to exercise their own judgement to function as part of the management team (Wolf et al., 2020).

Despite the evolving skills landscape, management accounting curricula, particularly in open and distance education (ODEL) institutions, continue to focus more on theory-based learning and traditional assessment models. Hence, many graduates enter the industry without the relevant and applied technical and financial skills necessary to perform well in the workplace. Employers expect a level of performance

from them that is in line with their qualifications. The financial services sector, as one of the largest employers of management accountants in South Africa (van der Lugt, 2024), is negatively affected by this perceived lack of technical skills. This misalignment between university graduates and the banking industry's needs is also linked to the limited opportunities for experiential learning in ODeL institutions. The absence of applied internship programmes, case study assessment, workplace simulations, and combined learning contribute to a theory-practice divide. As a result, banks incur higher training costs to bridge capacity gaps caused by curricula inefficiencies in the national skills output in South Africa.

To address the ongoing mismatch between the skills of management accounting graduates and the expectations of employers in the banking industry in South Africa, this study focuses on three main gaps. The first is industry-specific, commonly examined in terms of general accounting skills but not the particular demands of the highly regulated, high risk and data-driven banking environment. The second gap is discipline-specific, since most of the literature focus on financial accounting and auditing, neglecting management accounting skills despite their strong relevance to analysis, decision-making, and performance management within banks. The final gap involves ODeL context research, which argues that most employability and curriculum studies are based on contact universities, even though ODeL institutions like the University of South Africa (UNISA) produce the most significant number of accounting graduates in South Africa. These gaps highlight a limited understanding of what the banking industry explicitly expects from management accounting graduates, inadequate curriculum, and how the ODeL model influences skill acquisition. Therefore, this study explores the perceived relevance of management accounting graduates' skills required by the South African banking industry, identifies specific technical, analytical, digital, and communication skills gaps, and develops a conceptual framework and recommendations for improving the curriculum to better align with the banking industry within an ODeL environment.

This study contributes to the body of knowledge by extending the human capital, employability, and competency-based education (CBE) theory through incorporating the ODeL environment and industry-specific requirements. It proposes a conceptual framework model linking curriculum design, competencies, collaboration, and alignment outcomes, and develops hypotheses for possible future quantitative research. Furthermore, the study identifies priority skills gaps in the South African banking industry, provides recommendations for curriculum

improvement, and offers a roadmap for stronger collaboration between the banking industry and ODeL institutions.

The remainder of the paper is organised as follows, a discussion of the literature covering the concept and evolution of management accounting, the relevance of management accounting skills, and the challenges of using management accounting techniques in the banking sector, is presented in the next section. Section three explains how the research was conducted under the research methodology. This is followed by the empirical research findings. The last section presents the conclusion and recommendations for further research and practice.

2. Literature Review and Conceptual Framework

The crucial role of management accounting in the banking sector is to offer key insights for internal decision-making and performance evaluation. This study examines the relevance of management accounting graduate skills in the banking sector and identifies challenges that contribute to the misalignment between these skills and sector needs. The study further proposes recommendations for improvement while providing for structured insight into the relationship between academic qualifications, the evolving demands of the banking sector, and the readiness of the management accounting graduates entering the banking sector.

2.1. Management Accounting Graduate Competencies

Management accounting was first identified as a subdivision of accounting in the 1930s, when it was regarded as cost accounting (Anthony, 2003). However, by 1925, most of the management accounting techniques and tools used today, such as labour costs, material and overheads, budgeting, sales forecasts, standard costs, variance analysis, transfer pricing, and divisional profitability analysis, were already available but were not formally documented in textbooks (Fischer, 2016). One of the topics introduced in the mid-1930s was direct costing, and this was used internally for decision-making (Fleischman & Tyson, 2006; Näsi & Rohde, 2006).

In the 1960s, management accounting became popular for the first time (Fleischman, 2014). During that period, inventory control articles included sophisticated flowcharts, manufacturing cycles, feedback control systems, and input-processing-output diagrams, while economic order quantity and regression analysis were

commonly used in practice (Fleischman & McLean, 2020; Koziol, 1996). Zero-based budgeting was also introduced in the 1960s and was, for instance, mostly used for small businesses and government departments in the United States of America (USA) (Fleischman, 2014; Fleischman & Tyson, 2006). Before 1965, management controls were more focused on manufacturing businesses and internal processes, with less emphasis on organisations' strategic direction (Langfield-Smith, 1997). The topics focused not only on general management control but also on global international management accounting controls, which were perceived as more challenging than domestic ones (Koziol, 1996). Several books and articles were published that focused on developing advanced management accounting techniques such as activity-based costing (ABC), target costing, Kaizen costing, the balanced scorecard (BSC), throughput costing, and other new methods (Anghelache et al., 2019; Yazdifar & Tsamenyi, 2005).

2.2. Banking Sector Competency Expectations

Most employers expect management accounting graduates to focus more on adding value to their businesses than on simply completing projects assigned to them by their supervisors (Ghani & Muhammad, 2019; Kroon et al., 2021). To meet employer expectations, management accounting academics are expected to include problem-solving skills and analysis of business drivers in their curricula (Bresciani et al., 2023). Therefore, including management accounting concepts such as ABC, economic value added (EVA), and similar concepts in the syllabus assists graduates in understanding how to implement them when resolving problems businesses face (Endenich & Trapp, 2020; Maher, 2000). In addition, management accountants are expected to mediate conflicts among divisions within organisations by providing detailed, descriptive, and analytical information on business performance, which can serve as a basis for decision-making (Rikhardsson & Yigitbasioglu, 2018). If used effectively, management accounting helps to inform management about activities or products that are not profitable and should be discontinued by the organisation (Rikhardsson & Yigitbasioglu, 2018; Jinga et al., 2010). Since management accountants are perceived as agents of change, they are expected to be proactive, not only managing change but also initiating it (Seal et al., 2018; Xydias-Lobo, 2004). They are expected to play a significant role in sustainable development by participating in and influencing decision-making processes and contributing to the design of effective business strategies (Mistry et al., 2014). The above circumstances

place pressure on management accountants to shift from their traditional monthly reporting methods, which focus more on numbers, to a focus on adding value to organisations (Endenich & Trapp, 2020). This has resulted in management accounting information becoming less relevant, according to Fischer (2016).

2.3. ODeL-Based Accounting Education in South Africa

To prepare accounting graduates for employability, understanding the route from education preparation to career success is critical for both the ODeL and employers. Education is crucial in increasing workers' productivity as outlined in the theory of human capital. This is through the development of knowledge and competencies that contribute to economic value. ODeL refers to a model of learning that can be delivered effectively regardless of the geographical area, time, economic, social, educational and communication distance between the institution and the students by making use of technology (Ngubane-Mokiwa & Letseka, 2015). In South Africa, ODeL institutions produce a significant number of accounting graduates, offering accessible accounting programmes; however, they have some shortcomings, including a lack of face-to-face engagement among students, reliance on theoretical examinations, inadequate practical assessments, and redundant curriculum cycles (Letseka & Pitsoe, 2012). The banking sector evaluates management accounting graduates on their ability to analyse and interpret financial and non-financial information, perform analytical interpretation and risk modelling, understand regulatory requirements, provide institutional governance, communicate insights clearly, and support a rapidly changing business environment (Gunarathne et al., 2021). On this note, graduates from ODeL institutions possess a substantial theoretical knowledge base. However, their deficiencies in applied, digital, analytical, and behavioural competencies reduce the effectiveness of their human capital in banking-sector roles (Malinao & Guzman, 2025; Gunarathne et al., 2021). The misalignment between management accounting graduates and the banking sector, driven by rapid regulatory reforms and market shifts, poses unique challenges for these graduates (Venkatesh et al., 2023). For example, the curriculum gaps, where the curricula offered by universities or other institutions of higher learning do not fully reflect current banking sector needs, practices, and essential tools and technologies used in modern banking operations. Additionally, there is a lack of practical training, including limited internship opportunities, case-based learning, and exposure to financial data and real-world readiness experiences, as noted in a

study by Malinao and Guzman (2025). Given these constraints, management accounting graduates experience a non-readiness gap upon graduating from the ODeL as they prepare to enter the banking sector.

2.4. Theoretical Foundations

The theory of human capital (Wuttaphan, 2017) highlights the need for curriculum reform, the integration of technological and digital skills, and strong industry academia collaboration to optimise graduate human capital disposition (Crook et al., 2011). This theory is exceptionally relevant in management accounting education, as it supports academic curricula and models that are directly influenced by graduate preparedness for career opportunities and the demand for roles in the banking sector. Banks, therefore, prefer management accounting graduates who possess strong analytical, digital proficiency, and workplace-ready soft skills. Also, they can apply management accounting knowledge in their roles. These capabilities enhance the human capital contribution of management accounting graduates to the banking sector. Graduates require relevant soft and technical skills to enhance their performance as employees. Some of the tools introduced after Johnson, Kaplan, and other scholars raised concerns about the relevance of management accounting topics, including ABC, BSC, attribute costing, competitor cost assessment, strategic costing, value chain costing, and brand management accounting (Fischer, 2016). The introduction of these topics was seen to bring innovative improvement to management accounting education (Fischer, 2016; Maher, 2000). The principles they developed were designed to ensure that management accounting techniques can assist employees with skills that are relevant, such as the ability to make better decisions, provide relevant financial and non-financial information and analyse different scenarios and initiatives, and promote credibility and trust through the scrutiny and analysis of information that links short-term commercial interests to long-term value for stakeholders (Hadid & Al-Sayed, 2021).

Under the competency-based education theory, as referenced in Gervais's (2016) study and in the context of this study, graduates in management accounting are expected to possess and demonstrate foundational and intermediate technical skills, in addition to theoretical knowledge. Foundational technical skills refer to techniques used to analyse and manage costs, such as target costing and the preparation of analytical reports for decision-making (CIMA, 2014). However, the question remains whether management accounting education adequately prepares graduates

pursuing careers in the banking sector (Pasewark, 2021; Pedroso et al., 2020). Competency-based theory supports workplace application of knowledge and oriented approaches to learning. Howcroft (2017) has noted in his study that management accounting graduates struggle to translate textbook theory into practical applications in the banking sector after completing their management accounting education. For example, a study was conducted in two Australian universities to identify skills that were overemphasised and underemphasised in undergraduate courses. The findings showed that universities do not place sufficient emphasis on management accounting skills that could help analyse management accounting challenges and procedures, thereby preparing graduates for employability in the banking sector (Tan, 2019; De Lange et al., 2006). In essence, the employability theory (Andrews & Higson, 2008) reinforces the argument that knowledge, skills, attributes, experience, and the labour market context influence employment (McQuaid & Lindsay, 2013). Employers expect management accountants to work as providers of expert advice, team leaders, leaders in statistics or analytical techniques, designers and managers of information systems, designers and controllers of performance measurement systems, providers of information, analysts, internal consultants, and interpreters and managers of complexity scenarios (Odia & Oke, 2018). This theory highlights the mismatch between university outputs and employer expectations, which resulted in management accounting graduates not being considered for risk management roles in the 21st century.

In the literature review, we have examined the evolution of management accounting and the transforming role of management accountants in an increasingly dynamic and complex environment. Modern management accountants are expected to go beyond traditional reporting and engage as business partners, interacting with various stakeholders and playing a key role in decision-making. As data becomes more accessible through technology, management accountants' focus should shift from producing standard reports to providing strategic insights. Although universities equip management accounting students with technical skills, gaps remain between academic training and employer expectations. Management accountants need a broader skill set, including knowledge of tax, financial accounting, and auditing, as well as the ability to offer expert strategic advice. The management accounting curriculum must be relevant and address real-world challenges. This has led to the development of techniques that incorporate both financial and non-financial factors. The banking sector, characterised by high regulation, competition, technological change, and complexity, requires

management accountants who understand its specific dynamics to provide accurate advice. Limited research on the relevance of management accounting education, especially in an open distance learning context, understanding the role of ODeL in delivering modes in shaping competency acquisition and a conceptual framework linking curriculum, skills, employer needs and collaboration mechanisms suggests a need for further study to determine whether current curricula adequately prepare graduates for roles in industries such as banking, thus highlighting a gap in the literature. To achieve the study's objectives, Figure 1 below depicts the proposed theoretical conceptual framework.

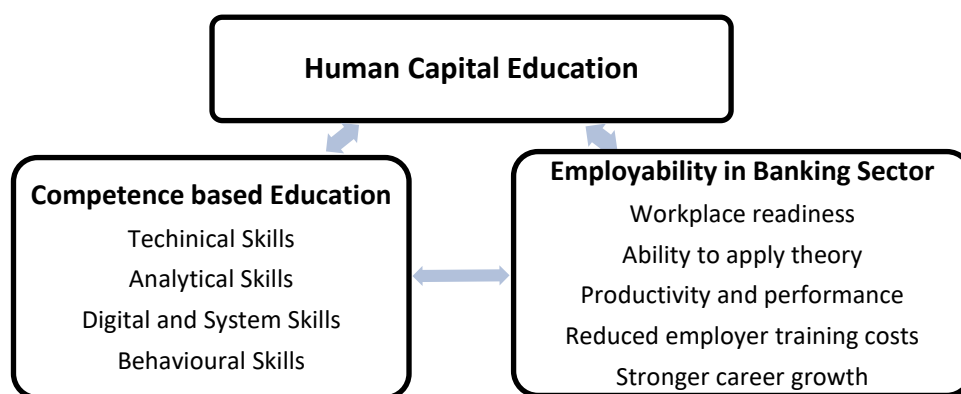


Figure 1. Proposed Theoretical Conceptual Framework

Source: Authors

3. Research Methodology

The study is approached using an interpretive paradigm that focuses on people's personal experiences and on how a specific group of individuals perceives a situation or phenomenon based on those experiences (Lim, 2024), and it explores the perceptions of employers and academics. The approach provided an opportunity to understand participants' viewpoints, contextual insights, and lived experiences, which helped the study uncover unforeseen, valuable, and interesting facts. A purposive sampling method was used to select 29 participants from two targeted groups: academic staff from an ODeL institution, and bank employees from selected South African banks. This was done in three stages. A qualitative research approach was used in stage one of data collection to address the ongoing mismatch between

the skills of management accounting graduates and employers' expectations in the banking industry in South Africa. The study focuses on three main objectives. The approach in this stage focuses on Objective 1, which investigates the industry-specific aspects that most studies examine in terms of general accounting skills, but not the particular demands of banking, a highly regulated, high-risk, and data-driven environment. To investigate the research problem, interviews with finance staff members, mostly senior finance managers, and senior staff members who support the finance departments in the banks were conducted. A narrative research approach was adopted, grounded in the stories participants told during the study's conversations and interviews, reflecting each participant's experience and perspective. The narrative research method, based on similar studies by Lim (2024) and Alan (2007), was considered relevant and necessary for the banking interviews because it helped provide insight into how management accounting graduate skills affect their work performance in the banking industry.

In stage two, a further qualitative approach was also used, based on studies by Cho & Lee (2014) and Elo & Kyngas (2008). Discipline-specific, the literature tends to focus on financial accounting and auditing, neglecting management accounting skills despite their strong relevance to analysis, decision-making, and performance management within banks. The second objective was to determine whether graduates were adequately equipped with relevant technical skills to work in the banking industry and whether the content presented in the management accounting modules was aligned with expectations in the banking sector. Interviews were held with experienced, knowledgeable senior management accounting academics from an ODeL institution regarding the management accounting subject content as presented at the institution. Therefore, experienced senior finance managers, bank managers, and academic accounting lecturers participated in the study based on their experience in hiring, training, and teaching management accounting graduates.

The third objective involves ODeL context research, which argues that most employability and curriculum studies are based on contact universities. Documentary analysis was conducted and reviewed in stage three, using management accounting modules and the South African Institute of Chartered Accountants (SAICA) competency framework, with a qualitative documentary analysis approach. Qualitative documentary analysis involves scrutinising documents to understand their content, using an inductive approach (Dew, 2005).

3.1. Data Collection

Semi-structured interviews were conducted during stages one and two using an interview guide that covered perceived relevance of graduate skills, observed performance gaps, views on curriculum, ODeL limitations, and recommendations for the way forward, and were all recorded on audiotape and transcribed. The interviews were conducted in quiet offices and boardrooms, free of distractions, to ensure the recordings of the conversations were accurate and precise. Interviews ranged from 45 to 60 minutes, were conducted face-to-face, and were dominated by open questions. This helps to understand the phenomenon by providing more insight from the interviewees about their personal experiences with it, thereby enabling highly credible findings. The questions were formulated and constructed to address the research gap. These gaps highlight a limited understanding of what the banking industry explicitly expects from management accounting graduates, an inadequate curriculum, and the ways in which the ODeL model influences skill acquisition. Therefore, this study addresses and assesses the perceived relevance of management accounting graduates' skills required by the South African banking industry, identifies specific technical, analytical, digital, and communication skill gaps, and develops a conceptual framework and recommendations for improving the curriculum to better align with the banking industry within an ODeL environment. Nineteen bank staff members from three banks – one development bank and two commercial banks participated. This was to ensure a diverse approach in the representation of views and perspectives, which is critical because of the various roles played by the participants within the South African banking sector. Participants from the banking sector were selected to represent a range of roles, including internal auditing, finance, and human resources.

Academic participants were selected from two management accounting departments within the ODeL institution: one undergraduate and one postgraduate. The sample included 10 academic staff members, covering key areas of management accounting, including financial management, costing, and accounting data processing. These academics were chosen to provide insights into both undergraduate and postgraduate curricula. The chosen ODeL institution is the largest higher educational institution in South Africa. Data from different sources were triangulated to analyse and validate the study's findings. This approach incorporates empirical findings and an empirical review, which form the basis for the theoretical conceptual framework proposed in the study objectives, and an empirical review to address the research

question regarding management accounting graduate skills for the banking sector, their relevance, challenges, and recommendations for improvement.

3.2. Data Analysis

Data collected for the study were analysed using an interpretative coding approach throughout all three stages of data collection. Identification of initial codes represents concepts and participant feedback. This was later mapped to group coding categories: technical gaps, digital skills, curriculum problems, and banks' industry expectations. An interpretative approach is used to understand and establish how participants interpret certain phenomena. The analysis focused on what the participants presented regarding the technical skills displayed by graduates and their impact on the relevance of the management accounting syllabus to the banking industry. The themes were derived from participants' input and used to describe what they experienced and the circumstances that resulted from those experiences. The participants' information was compared and grouped to create categories and subcategories. Further, the documentary analysis approach helps scrutinise documents to gain knowledge and understanding of the information available, enabling meaningful analysis and its relevance to the banking industry. Each activity and case presented under each topic was reviewed, with mapping to the SAICA competency framework, to determine the level of knowledge and proficiency of banks within the financial services industry.

To ensure the study's trustworthiness and produce credible evidence from different sources, triangulation and crystallisation were applied to ensure that the data presented in the study are trustworthy, reliable, and valid. This was achieved by interviewing 19 bank staff members, 10 ODeL University senior academic staff members, reviewing the study material for four management accounting modules, and mapping the management accounting syllabus to the SAICA competency framework. The lecturers who participated in the study teach different management accounting modules at different levels: cost accounting, financial management, and practical accounting data processing, which deals with accounting information systems. The information obtained from all the interviews was transcribed, and a professional external co-coder confirmed the analysis. Different textbooks and study guides, as well as the mapping of management accounting to the SAICA competency framework, were also reviewed and analysed separately. This collectively helped ensure the research's trustworthiness and prevent bias. Also, all participants were

informed that their participation was voluntary and that they could withdraw at any time without providing reasons. They were informed that there would be no physical or financial risks to their participation in the interviews and that their confidentiality and anonymity would be protected before the interviews. Data transcriptions were double-checked and reviewed to ensure that everything was captured accurately. The same questions were asked of all interviewees to ensure credibility and to build each participant's trust, while honouring anonymity, honesty, and openness during the interviews.

4. Findings

4.1. Relevance and Perceptions of Graduate Skill

The study's findings, from the participants' perspective, strongly suggest that management accounting graduates from ODeL institutions are strong in the conceptual understanding of budgeting, costing, and financial analysis. Also, bank participants indicated that newly employed graduates with appropriate qualifications possess a robust theoretical background in management accounting, including its fundamental concepts. However, the graduates lack practical experience in applying management accounting techniques and principles. One participant stated assertively:

“What I found is that university gets very theoretical, and you learn a lot, but then sometimes the link is missing between how you can apply what you have learned in a more practical way.”

Nearly all participants said that graduates occasionally find it difficult to link academic theory with banking-specific requirements, such as product profitability, regulatory compliance, risk modelling, and customer segmentation. Also, most of the bank participants acknowledged that newly employed graduates in the banking sector often struggle with management accounting systems because they lack practical experience before joining the sector. The general perception is that most higher education institution graduates are found to be interested only in passing their examinations, rather than in acquiring knowledge. A bank participant, a newly appointed graduate, noted that university education focuses on teaching specific methods, which students then memorise to achieve high grades in their examinations.

4.2. Technical Skill Gaps

The study finds that recurring technical gaps in the banking sector include understanding of banking regulation, financial modelling, forecasting accuracy, financial analysis, and the applied use of costing in financial services. Most bank participants, who are senior finance managers, observed that students who graduated from ODeL institutions do not possess the relevant technical skills required of them. One bank participant stated the following:

“We do a batch of psychometric assessments. The first assessment assesses your logic reasoning capability... Then we do a numerical assessment, which would speak to what they would have qualified in, if they’ve done a BCom type of degree... it’s ratios, it’s a little bit of statistics, and then a verbal assessment also shows how you reason with information.”

Employers reported that graduates from ODeL institutions who lack relevant technical skills are unable to deliver quality work. However, newly employed graduates with appropriate qualifications possess a robust theoretical background in management accounting, including its fundamental concepts.

4.3. Digital and Analytical Skill Gaps

Modern banks depend heavily on analytics and digital systems. Employers expect management accounting graduates to coordinate different activities that hold the business together, which require relevant skills to conduct project appraisals and perform calculations across different scenarios. However, management accounting graduates often lack skills such as advanced Excel proficiency, data interpretation, exposure to business intelligence tools, project appraisal, and the ability to perform calculations across different scenarios. One manager observed:

“Management accountants connect the dots, put information together in a way that others can’t, and shape new solutions for the banks.”

Another bank participant said:

“We do complex financial and mathematical calculations; that is the nature of our business.”

It is to be noted that, in modern banking, digital competence is non-negotiable. However, many graduates are not prepared for the new challenges posed by digital transformation.

4.4. Soft Skills and Professional Behaviour Gaps

Most participants highlighted deficiencies in soft skills, including communication and critical thinking. Further deficiencies were noted in teamwork, time management, and workplace etiquette. From a finance services perspective, management accountants serve as strategic business partners, helping the business make informed decisions. They aid in providing business knowledge on when to execute the business strategy to optimise shareholder interests and value (Fischer, 2016). Also, management accountants facilitate business operations by effectively communicating business performance, analysing data, designing pricing models, and providing strategic advice to help businesses surpass the competition (Anghelache et al., 2019; Odia & Oke, 2018). One participant explicitly stated:

“There’s a need to carefully craft the strategy into a meaningful financial plan and a financial model, and a management accounting function plays an incredible role in helping deliver that.”

One interviewee from the bank mentioned that:

“Graduates are all different in their level of proficiency in mastering their emotional intelligence, level of curiosity, problem-solving skills, and those are skills you need in the management accounting role in order to be successful.”

Most participants believed that some graduates require time to adjust to the new environment, which influences how quickly and efficiently they learn from their mentors. Therefore, soft skills are becoming increasingly important in team-oriented banking settings. Given resource availability, management accounting graduates are expected to improve business financial sustainability and performance.

4.5. ODeL Curriculum and Limitations

Five academics from the ODeL university identified challenges with the ODeL curriculum and its limitations in equipping management accounting graduates. One of the main challenges identified is that management accounting graduates entering

the banking sector have limited practical experience beyond their theoretical qualifications. One academic expressed it as follows:

“The service industry is quite a big industry compared with manufacturing. So, the textbooks do not cover it in a major way, and the professional examinations also do not cover it.”

Other specific challenges identified by the participants include a lack of teamwork among ODeL students, limited real-world engagement, an outdated approach to academic assessments, few internship opportunities, and slow updates to the ODeL curriculum by the institutions. Most bank participants believed that information sharing between banks and universities would facilitate collaboration among key players in the banking sector and academic institutions. Bank participants argued that these challenges limited the practical readiness of the graduates for banking roles. One participant said:

“We cost the products that we have, as well as things like the time it takes in the branch to serve people.”

Five academics from the ODeL expressed that the lack of collaboration with the banking sector via an internship programme undermines the ability of the management accounting graduates to showcase what the institution has taught them. Participants from academia expressed that formulating, designing, and developing the management accounting curriculum and instructional material should include bank-related questions and case analyses. One academic suggested that management accounting instructors examine the bank-related modules available in other faculties, such as economics and management sciences, to determine which may be included in the management accounting curriculum.

4.6. Banking Sector Expectations

Most bank employees indicated that hiring experienced management accounting graduates benefits the bank by reducing the need for additional training and retraining of ODeL graduates who lack practical experience or have not been exposed to real-world experience. Banks require graduates who can interpret risk reports, work with data analytics platforms, understand regulatory constraints, and deliver insights quickly. A participant from the bank categorically stated:

“The management accounting function in the bank is to monitor or appraise business performance from time to time, especially monthly, quarterly and sometimes years to see how the banks performed against set targets”.

Moreover, findings revealed that bank most participants stated that management accounting graduates who target the banking sector for career roles should be able to identify clients and products that yield the highest profitability, engage comprehensively with product value chains, commencing with the initiation of transactions, analysing the cost flow through to transaction completion, and utilising this knowledge for product pricing. More importantly, graduates need to be able to communicate to the business the areas incurring losses, assist in identifying opportunities to improve profits, assess margins, and furnish management with information regarding the business’s future.

5. Discussion

The study’s findings strongly confirm the theoretical conceptual framework presented in the literature review section. Each dimension of this conceptual framework has been discussed under the relevant headings and reflects the study’s knowledge contribution. The conceptual framework, as graphically depicted, provides a reinforcing visualisation and methodological contribution of the study. The framework modestly asserted that the depth of knowledge and its interlinkages, embedded in this final conceptual framework, go some way towards meeting the expectations of the banking sector regarding the role and performance of management accounting graduates planning to start a career in the sector. The provided framework includes a range of possible collaborations between banks and the ODeL university. Individuals with experience in the banking sector could teach as guest lecturers at an ODeL university and create experiential learning opportunities for the graduates.

Although the items in the framework are by no means exhaustive, they can nevertheless serve as a foundation for a more comprehensive analysis of the determinants of management accounting graduate skills for the banking sector, including their relevance, alignment, and implications. The developed framework is grouped into four functional activity areas: curriculum design, graduate competencies, banking-sector expectations, and industry–academia collaboration, with a proposal for future research. All were visible in participant responses,

affirming the theory's relevance. These listed activities encompass the indicators and approach that provide detailed analytical information, and how academics can leverage them to develop strategic applications in management accounting graduate skills for the banking sector. One of the study's critical findings is that graduates possess solid theoretical grounding but lack the competencies to apply technical, analytical, and digital skills. This aligns with the framework's foundational assumption that curriculum effectiveness is measured not only by the transmission of knowledge but also by the demonstration of competencies within industry contexts. The analysis of the framework also discusses and provides context on the role of management accounting graduates' determinants in the banking sector. Also, the ODeL system amplifies these challenges by limiting opportunities for practical teamwork, real-world time engagement, exposure to industry regulatory compliance, and contextual application. Furthermore, students who graduate from ODeL colleges are inadequately prepared to address the issues and processes relevant to career development in the banking sector. This view is supported by Pasewark (2021), Pedroso et al. (2020), and Howcroft (2017).

Also, the study's findings align with the literature on graduate employability, which highlights persistent skill gaps in communication, critical thinking, and the application of theory to practice. Studies conducted by Malinao and Guzman (2025) and Gunarathne et al. (2021) similarly report that accounting graduates often lack adequate practical experience and digital competencies. Furthermore, the study extends previous findings (De Lange et al., 2006; Tan, 2019; Fischer, 2016; Anghelache et al., 2019) in three ways of sector-specific issues, which examines the roles of accounting graduates in general, discipline-specific, focuses explicitly on management accounting, and discipline related to costing and financial accounting, and lastly, ODeL contextual contribution, which highlights how the ODeL institutions contribute to skill gaps, and offers an innovative contribution to both accounting education and employability study, in the prior study. However, this study identifies competencies such as digital skills, risk analytics, regulatory reporting, and product profitability modelling. This corroborates the findings of an earlier study by Anghelache et al. (2019), which found that management accounting graduates struggle to assess product costing and profitability by considering cost drivers.

The misalignment originates from several systemic factors. Management accounting curricula at ODeL institutions are often slow to reform and adapt to transformational changes and regulatory developments in the banking sector. Participants noted

outdated curriculum, limited integration of analytics and modelling tools, and insufficient emphasis on modern digital competencies as factors currently observed in the findings. Also, the ODeL institutions model, although it provides greater access to education, limits students' opportunities to develop interpersonal and professional skills through group work, presentations, case discussions, and workplace simulations. Also, constrained or non-existent is employer engagement in the development and design of ODeL in the curriculum, as well as guest lecturing, and internship facilitation, which remains limited. Without strong industry collaboration, curricula and assessments fail to mirror the realities of banking workplaces. These implications affect ODeL accounting education, while the study reinforces the need for ODeL institutions to reform accounting education by integrating interactive, scenario-based assessments, virtual simulations of banking systems, compulsory analytics training, digital tools, and structured, industry-work integrated learning. The findings confirm that technology-enabled, experiential learning approaches are essential for bridging the readiness gap.

6. Theoretical and Practical Implications

This study contributes to theory in three significant ways by demonstrating that employability must be understood not only in terms of graduate attributes but as an interaction between institutional delivery mode, workplace expectations, and industry engagement. Also, it contributes to the literature on management accounting qualifications by developing a conceptual framework that focuses on the links between management accounting graduate skills and banking-sector-specific requirements. The findings show that employability is context-dependent, especially in digital and highly regulated industries like banking. While previous studies often address employability in broad terms, this study narrows the scope to examine how management accounting competencies align (or misalign) with the operational and strategic needs of modern banks. Secondly, the results reinforce CBE concepts but expand the theory by highlighting barriers faced in ODeL contexts, where practical competencies are more complex to develop. The study suggests a need for revised CBE models that incorporate digital simulations, virtual practical, and technology-driven assessments. Lastly, the study emphasises inefficiencies in the education-employment channel, demonstrating that theoretical knowledge alone does not guarantee employability and that effective human capital development requires

applied, industry-relevant skills. This offering provides empirical and conceptual evidence to guide educational reform within the ODeL institutions.

On this note, this study's practical implication for an ODeL institution was to incorporate banking-specific subjects, such as risk management, financial and analytical modelling, and regulatory compliance, through curriculum reform. They should, through assessment reform, change their teaching approach to include case-based scenarios and practical, technical, and digital assessments; introduce soft skills training; and establish or strengthen academic and sector advisory mechanisms with the banking sector for collaborative purposes. On the other hand, banks should be ready to offer structured internships and mentorship programmes for students at ODeL institutions to enhance exposure to the banking sector. Provide support through employer-sponsored engagements and job opportunities for new graduates as an entrance point into the banking sector. Most importantly, the banks should participate in developing modules and practical assessments for ODeL institutions. Implications for Policy and Regulatory Bodies include encouraging competency-based, work-integrated learning standards, prioritising funding for digital skills development in accounting education, and creating formal frameworks for ODeL and for banking-sector partnerships in curriculum design.

7. Conclusion and Recommendations

This study explored the relevance and challenges of management accounting graduates in the South African banking sector. The empirical evidence underscores the need for management accounting education to adapt to emerging demands and changes in the South African banking sector. While ODeL institutions provide a flexible learning platform that meets many students' needs, more is required to meet the growing demand for technical, analytical, and practical skills. The study's findings provide opportunities to incorporate structured knowledge mechanisms in South African ODeL institutions to address these skills gaps for management accounting students, who could then be readily absorbed into the banking sector. Solving the problems identified in this study will improve graduates' employability rate and enhance the overall quality and relevance of management accounting education in a rapidly changing banking business environment in South Africa and beyond.

The study further contributes to educational practices by illustrating the need for constructive alignment between learning outcomes, teaching strategies, and the evolving demands of the banking sector. This contribution emphasises the support and involvement of both the banking industry and academia by identifying how targeted skills development in ODeL institutions can enhance sectoral productivity and innovation through refinements to professional competency models and sector-specific adaptations for management accounting graduates, particularly in heavily regulated and technology-driven sectors.

The study further offers actionable guidance on revising management accounting curricula to be more responsive to sector needs, particularly through experiential learning, technology integration, and soft skill development. The findings show that management accounting graduates are not adequately prepared for positions in the banking sector, as curricula at ODeL institutions do not address some of the concerns identified in the study. The primary issue is that graduates find it difficult to translate the theoretical knowledge acquired from their studies into practical applications of knowledge within the banking sector. The study also provides insights to support efforts to update national qualification frameworks and professional accreditation standards to reflect the realities of sector-specific demands. It is recommended that ODeL institutions prioritise experiential learning and real-world problem-solving within their curricula to close the gap. Furthermore, the study revealed that ODeL generally does not meet student expectations in providing graduates with employability skills. However, many participants indicated that ODeL does provide flexibility by allowing students to work and study simultaneously. Finally, the study raises awareness among management accounting students about the competencies that are increasingly valued in the banking sector, empowering them to seek relevant experiences and upskilling opportunities.

While the focus of this study was on management accounting graduates in the context of ODeL institutions, the study's limitations include, but are not limited to, a greater reliance on qualitative data and limitations that prevent generalising the study's findings. Also, a relatively small sample size was used, focusing only on South Africa and excluding quantitative competency assessments, which could have introduced potential bias due to self-perceptions.

However, the study provides a foundation for further studies that can test and validate the proposed relationships and interventions, such as surveys or case studies. It is also important to consider broader research on employability skills across the

accounting field, making sure that ODeL programmes are effective in fostering technical competencies as well as honing non-technical skills, such as leadership, teamwork, and other soft skills. This can be achieved if ODeL institutions enhance their curricula by including experiential learning opportunities, internships, real-world problem-solving, and collaborative projects that can help students develop their professional, technical, and soft skills. This will prepare them for the job market and add value not only in the banking sector but also in other sectors. Against this background, the researchers propose the following recommendations to address the skills gaps identified in the study.

- The ODeL institutions should improve management accounting curricula to focus on practical applications and real-world scenarios.
- The ODeL institutions should foster collaboration between educational institutions and the banking sector.
- The ODeL institutions should emphasise the development of both technical and soft skills in their curricula.
- Proficiency in relevant technologies and data analysis skills among management accounting graduates is important. This will assist the banking sector to harness technology and analytics more extensively in its decision-making processes.
- In the rapidly changing banking environment, regular training, development initiatives, and continuous professional development for management accountants are important to keep skills current and relevant.

In conclusion, a strategy that aligns management accounting education methodically with the demands of the banking sector is essential. This will ensure that management accounting graduates are sufficiently equipped with essential skills, thereby better preparing them for the challenges and demands of the banking sector and enhancing their overall operational efficiency. Also, the integration of both technical and interpersonal skills in alignment with banking sector standards will foster learning in ODeL institutions. With this approach, the banking sector can augment the efficacy and relevance of management accountants to enhance their operational efficiency and decision-making.

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