

## **Exploring accounting in emerging markets: The developments, challenges and opportunities**

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### **Abstract**

**Purpose of the study:** Accounting is supposedly perceived to be the poor cousin of the function of finance - this study provides an understanding of accounting in emerging markets based on insights gained from identified publications for the period 2001 to 2020, as it relates to the developments, challenges, and opportunities.

**Design/methodology/approach:** A systematic literature review on accounting in emerging markets was conducted. A Scopus search of ‘accounting’ and ‘emerging markets’ in the article title was conducted and produced 39 publications for the period 2001 to 2020. There was one duplicated publication, thus 38 of the publications identified were further analysed using content analysis to gain insights on the developments, challenges and opportunities with accounting in emerging markets for the period under review 2001 to 2020.

**Findings:** The review established that the field of accounting is generally mature globally, however, there are continued enhancements to the accounting standards initiated and driven to keep up with the increasing global economic activity and thus maintain the value relevance of accounting information. There are a few challenges experienced with the adoption and implementation of international financial reporting standards (IFRS), especially where there are perceived or real gaps with the local accounting standards in some emerging market jurisdictions. However, there are opportunities to leverage on technology to further enhance the practice of accounting.

**Originality/value:** The study contributes to the body of knowledge by providing (i) an understanding of accounting in emerging markets; (ii) the developments in the practice of accounting in emerging markets; (iii) challenges and opportunities associated with accounting in emerging markets; (iv) a proposed theoretical accounting system framework; and (v) a proposed future research agenda.

**Keywords:** Accounting; accounting history; accounting principles; bookkeeping; emerging markets

**Paper type:** Empirical

## 1. Introduction

Accounting is perceived to be a boring, conservative and pedantic function – “*the poor cousin of finance*” (Frampton & Robilliard, 2020, p.v), however, if some of the scandals associated with the function are considered - as far as their complexity, consequences and impact – the accounting function and/or profession is far from this perception (Frampton & Robilliard, 2020). And because of its importance of being seen as “*the language of business*” (Britton, 2013, p.3), through the preparation and maintenance of accurate financial records, and communicating the financial position of organisations (Carnegie *et al.*, 2021), it is important that its practice as a function is well understood. The main purpose of accounting is to provide useful information for decision-making by the users of the financial reports/statements produced (Peterson, 2017; Frampton & Robilliard, 2020; Carnegie *et al.*, 2021).

There have been a lot of scandals associated with the accounting function, that have resulted in various role players (actors and agents) face various forms of punishments, that range from fines, sanctions and/or imprisonment (Peterson, 2017; Larcker & Tayan, 2020; Pope, 2023). However, some of the negative reputation associated with accounting is believed to be unwarranted (Frampton & Robilliard, 2020). It was stated that:

*“Accounting is amazing. It’s everywhere in your life, enabling almost everything you do. Accounting is at the heart of financial accountability – in your personal life, in business, in politics, and in general society. Accountability is what makes the world go around”* (Frampton & Robilliard, 2020, p.ix).

The discipline and intent of accounting as prescribed by the generally accepted accounting principles (GAAP) applicable in the various global jurisdictions, is clearly meant to enable the accurate preparation and fair presentation of financial reports/statements, however, due to unethical approaches adopted by some economic actors or the failure to have skilled accounting personnel, often leads to undesirable outcomes from the accounting function (Frampton & Robilliard, 2020; ALShanti *et al.*, 2024), which then affects its reputation or standing in society.

Accounting has been around for a long time - dating as far back as 7000 BC – with the modern form of accounting starting in the 13th century; one of the seminal moments was in 1494, when Luca Pacioli, traditionally known as the “Father of Modern Accounting” wrote a book that invented the double-entry bookkeeping process - a process of capturing transactions and economic events on the left and right side of the book - the ledger (Brown, 2014; Paris, 2016; Phatshwane & Mbekomize, 2017; Frampton & Robilliard, 2020).

In life, as in business and other organisational settings, planning for the future takes place, and hence some form of accountability happens thereafter to track and assess associated progress with any developed or set future plans. The domain of planning for the future is commonly associated with ‘strategy’ – being the development and implementation of plans to achieve a desired future state (Dhlamini, 2022), whereas the accountability aspect, from a number’s perspective is associated with the domain of ‘accounting’. The intersect of ‘accounting’ and ‘strategy’ is one that’s interesting to study as it relates to the effective management of organisations. Accounting is therefore more focused on the past - looking at maintaining a set

of financial records - that tell a story of what happened in the form of numbers - with some future perspective only as it relates to the preparation of financial forecasts (1 year into the future) and budgets (usually 1 year to 5 years). Whereas strategy is focused on establishing and achieving the desired future state of the organisation. The challenge drawn by wanting to project the organisation as having achieved or being able to achieve a desired future state, is what then at times fosters the need for accounting personnel and/or professionals to embark on creative accounting; which is an act that results in the manipulation of financial records to achieve a misguided cause and/or outcome (ALShanti *et al.*, 2024).

The primary objectives of the study are to enable policymakers/advisors, regulators and practitioners to (i) maintain the rigor associated with the training of accountants to maintain the quality and assurance of their work output, (ii) ensure there is continued supply and demand of accountants – thus enable policymakers to see and promote the value of accountants, and (iii) address the challenges associated with some of the corporate governance scandals the world has experienced in both private and public organisations. All this can be achieved by ensuring there are sufficient appropriately skilled accountants available to capture and maintain accounting records accurately.

Thus, the study adds to the accounting knowledge base, to better position the accounting function, to be seen and understood from its intended perspective of providing accountability and assurance - in emerging markets. This study having analysed the theoretical and empirical findings, as well as the methodological approaches used in previous studies identified for this review study (see Appendix A and B), a focus on conducting a systematic literature review (SLR) assists in presenting a critical summary of previous research on accounting in emerging markets. Also, the realisation that there is a paucity of research on studies of accounting in emerging markets as compared to accounting research in general as it relates to the wider global arena, this research aids in closing this knowledge gap as well.

The study provides insights for policymakers/advisors, regulators and practitioners in emerging economies, that can be used to enhance the practice of accounting and improve oversight on the accounting function.

## **2. Literature review**

This section sets out the detail on what accounting is, its related functions, a brief history of accounting as it relates to the management of organisations, and the complexities associated with accounting.

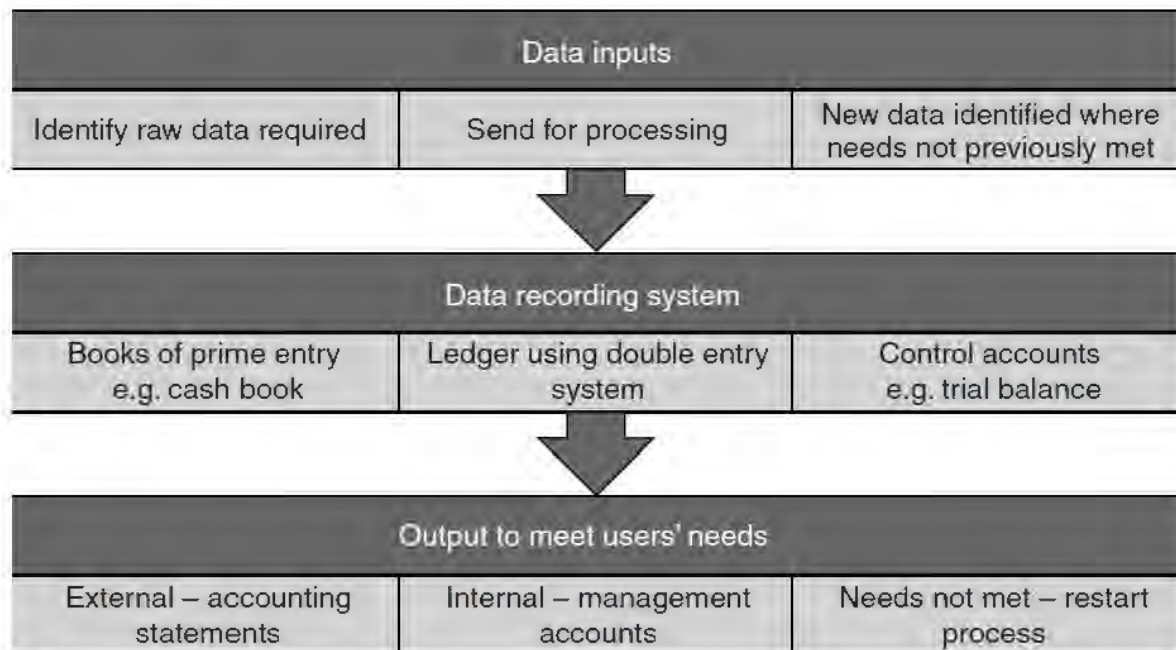
### **2.1. What is accounting?**

Accounting is a function that identifies, records and communicates the transactions and economic events of an organisation to various stakeholders (both internal and external) (Carnegie *et al.*, 2021). It is seen as a means of communicating what the organisation has done in the past, how its currently performing, and what it plans to do in the near future - in numbers or their interpretation. This is the process of turning the data from the transactions and economic events into useful information for decision-making – the key being the usefulness of

the information for decision-making (Frampton & Robilliard, 2020; Carnegie *et al.*, 2021). Thus, if the financial information being provided through the financial reports is not useful the accounting function is not fulfilling its requirement.

Bookkeeping is a form of capturing accounting transactions and economic events in a ledger – historically it started in a single-entry form with entries recorded as a running single file with a positive or negative sign at the beginning of the number (Frampton & Robilliard, 2020). This process was advanced to a double-entry bookkeeping process invented by Luca Pacioli in 1494 – as a process of capturing transactions and economic events on the left and right side of the book (the ledger) as and when they occur (Frampton & Robilliard, 2020) - as either a debit (as an asset in the balance sheet, or an expense in the income statement); or a credit (being a liability in the balance sheet, or income/revenue in the income statement) (Frampton & Robilliard, 2020). The distinction between what is captured as a balance sheet or income statement transaction is primarily on the nature of the transaction or economic event, being either something that will be under the control of the entity with durability in excess of a year, thus belonging to the balance sheet; if less than a year then it is deemed an income statement transaction or economic event (Britton, 2013; Frampton & Robilliard, 2020). The separation of debits from credits, makes it easier to detect errors, prevent fraud and estimate a company's financial strength with a mere glance at the appropriate financial records (Britton, 2013; Frampton & Robilliard, 2020). The accounting system showing the inputs, processing and outputs, is summarily presented in Figure A.1.

**Figure A.1: The accounting system**



Source: Britton (2013)

There are three key financial reports produced as an outcome of the accounting function and these are: (i) a balance sheet (also known as a statement of financial position) – a ledger that

captures the assets and liabilities of the organisation as well as the owner's equity account position at a specific time period; (ii) income statement (also commonly known as a profit and loss account or statement of comprehensive income) is a ledger that captures the income and expenditure as well as other economic event transactions such as accruals, depreciation that would have occurred or taken place in a given specific period such as a week, month, quarter or a year; and (iii) the cashflow statement - a ledger that captures the cash movements (cash inflows and outflows) and providing the net cash position of the organisation in a given period (Britton, 2013; Frampton & Robilliard, 2020; Carnegie *et al.*, 2021). The balance sheet as the primary financial report that captures and shows the overall financial position of the organisation - is best explained using the accounting equation set out in the following subsection.

#### *2.1.1. The accounting equation*

Accounting and specifically the balance sheet can be summarily represented by the accounting equation; 'Assets = Liabilities + Owner's equity' (Britton, 2013; Frampton & Robilliard, 2020). The assets, liabilities and the owner's equity are set out in detailed below.

*Assets* – are various forms of both tangible and non-tangible valuables whose ownership gives benefits to the organisation as the owner of the assets - these can be in the form of buildings, fittings, equipment, cash, promissory notes both short-term and long-term (Britton, 2013; Chatfield & Vangermeersch, 2014; Frampton & Robilliard, 2020).

*Liabilities* – these are commitments and/or amounts the organisation owes external parties in the form of loans, creditors for goods and services delivered on credit - the liabilities are usually grouped into types of debt and date they are due to be settled (Britton, 2013; Chatfield & Vangermeersch, 2014; Frampton & Robilliard, 2020). The longer-term debts (those due after more than a 1 year) are grouped separately and those due in less than a year are grouped as short-term liabilities/debts.

*Owner's equity* – This is an account that captures the value that can be attributed to the shareholders or owners of the organisation represented by the net value of accumulated earnings/profits or losses from prior years; and the value of the shares issued to the shareholders/owners as recorded in the accounting records, subject to any asset or share valuation adjustments recorded/captured (Britton, 2013; Chatfield & Vangermeersch, 2014; Frampton & Robilliard, 2020).

#### *2.1.2. The accounting standards*

Accounting standards (such as the IFRS and US GAAP) guide the preparation and presentation of financial statements and other financial records (Camfferman & Zeff, 2015). Financial statements are a representation of the performance and financial position of the organisation at a given point, covering a specific period. Britton (2013, p.16) posits that according to International Accounting Standard (IAS) 1 - a complete set of financial statements comprises of:

- (i) “:a statement of financial position at the end of a specific period;
- (ii) a statement of comprehensive income for the period;

- (iii) *a statement of changes in equity for the period;*
- (iv) *a statement of cash flows for the period;*
- (v) *notes, comprising a summary of significant accounting policies and other explanatory information – disclosures, and;*
- (vi) *a statement of financial position as at the beginning of the earliest comparative period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements.”*

The accounting standards enable the standardisation of the way the preparation of financial statements is done, thus enabling comparison of the performance of a specific organisation with other organisations that use similar accounting standards or those that use difference accounting standards subject to adjustments to address any differences between the accounting standards used (Camfferman & Zeff, 2015).

### *2.1.3. The accounting principles*

There are a set of accounting principles (rules) that guide the preparation of financial records and reports, and these are namely – (i) historical cost principle, (ii) fair value principle, (iii) accrual-basis accounting – this is a process of recognising revenue when earned and expenses when incurred, regardless of when the cash or its equivalent is exchanged, whereas with the (iv) cash-basis accounting – revenue and expenses are recognised when cash or its equivalent is exchanged for the respective goods and services provided, (v) revenue recognition principle – revenue should be accrued when earned, and (vi) matching principle – revenue and expenses should be recorded in the accounting period they both relate to and not deferred (Chatfield & Vangermeersch, 2014; Frampton & Robilliard, 2020).

*The role of auditing* – it is a service provided to give assurance to the users of financial information, on the true and fair representation of the financial information produced (Peterson, 2017). This is usually performed through two functions namely (i) internal audit – an assurance function enabled through internal resources, and (ii) external audit – an assurance function enabled through an independent external service provider (Britton, 2013). The corporate governance function of the organisation is supposed to establish internal controls such as - segregation of duties; performance of reconciliations; introduction of policies, processes and procedures – to improve the control environment of the organisation.

The primary means of accounting are numbers, counting and writing – thus if these are not performed well or accurately, this poses the risk of the information provided as it relates to accounting to be incorrect (Frampton & Robilliard, 2020). These risks associated with accounting - therefore need to be effectively managed - otherwise there is the risk that the information provided through the accounting function will not reflect a true and fair position of the organisation's transactions and economic events - in the past, present and future.

Carnegie *et al.* (2021) posit that there are many definitions of accounting, however, they argue that the common thread with the current definitions of accounting is that they are purely focused on the technical practice - as they mostly focus on the eight key accounting activities of identifying, measuring, recording, classifying, summarising, analysing, interpreting and

communicating – thus the definitions do not fully embrace both the financial and non-financial aspects of accounting. The new definition of accounting proposed by Carnegie *et al.* (2021, p.69) is:

*“Accounting is a technical, social and moral practice concerned with the sustainable utilisation of resources and proper accountability to stakeholders to enable the flourishing of organisations, people and nature.”*

This proposed new definition goes beyond just focusing on the technical practice but embraces the broader need for a focus on the moral and societal aspects as well – which are also representative of the impact and expectations of the accounting profession (Carnegie *et al.*, 2021).

## **2.2. A brief history of accounting**

Accounting has been around for a long time - dating as far back as 7000 BC - evidence of its practice was first discovered by archaeologists in ‘Mediterranean’ and ancient ‘Near East’ (an area called Mesopotamia which is located in the region now known as the Middle East - also known as the cradle of civilisation) (Brown, 2014; Paris, 2016; Phatshwane & Mbekomize, 2017). The evidence discovered as proof of bookkeeping practice, included tokens that were modelled into simple shapes like cones, spheres, cylinders, ovoids, triangles, vessels, tools and animals (Brown, 2014) – this being evidence associated with counting and record-keeping.

The modern form of accounting started in the 13th century when merchants started to depend on bookkeeping to oversee transactions financed through bank loans (Paris, 2016) – in 1494 Luca Pacioli, traditionally known as the "Father of Modern Accounting" wrote a book that invented the double-entry bookkeeping process - a process of capturing transactions and economic events on the left and right side of the book - the ledger (Brown, 2014; Paris, 2016; Phatshwane & Mbekomize, 2017; Frampton & Robilliard, 2020). Beyond double-entry bookkeeping the book covered; the use of ledgers, inventories, liabilities and expense accounts (Paris, 2016).

It is posited that the provision of accounting services was previously provided by solicitors (lawyers in some jurisdictions) – however, with the increased demand of the services of accountants - the first evidence of this profession as a standalone profession from that of solicitors was in 1300 (Paris, 2016). The first formation of a formal body of professional chartered accountants is noted to have originated from Scotland in the 19<sup>th</sup> century (Paris, 2016). Globally there are now numerous accounting body's (such as the Institute of Chartered Accountants in England and Wales – ICAEW, the Association of Chartered Certified Accountants – ACCA, the American Institute of Certified Public Accountants - AICPA) that play various oversight roles on the delivery of accounting services and the conduct of registered professional accountants.

Beyond the professional accountants who either work directly for independent organisations or formally registered local accounting firms, there are a set of formally registered accounting firms that operate globally and have a long history in the delivery of accounting services and the training of professional accountants; and these were called the big five (Peterson, 2017;

Larcker & Tayan, 2020). The big five - Deloitte, KPMG, PwC, EY and Arthur Anderson – as they were known, are now called the big four, because one of them - Arthur Anderson - collapsed in 2002 after an auditing scandal that significantly affected its continued survival due to litigation and regulatory non-compliance challenges (Peterson, 2017; Larcker & Tayan, 2020).

As the world has developed – complexities associated with organisational structures, accounting for transactions and economic events, and ensuring that financial records/reports still present an accurate and fair representation of events, have increased, so too has the need for accounting services and guidelines grown. In this regard, the International Accounting Standards Committee (IASC) was formed in 1973 by a coalition of professional accounting bodies from various countries and issued the initial accounting rules (principles and standards) called the International Accounting Standards (IASs) (Camfferman & Zeff, 2015) - this body was then replaced in 2001 by the International Accounting Standards Board (IASB) which created and issued the International Financial Reporting Standards (IFRSs), one of the first formal globally applicable accounting principles and standards (outside of the United States of America which uses the Generally Accepted Accounting Principles - US-GAAP; and other countries) to address a range of challenges related to the standardising of the way transactions and economic events are captured and represented in the financial records/reports (Camfferman & Zeff, 2015; Phatshwane & Mbekomize, 2017).

The accounting standards have evolved over the years and various jurisdictions now have their own (such as the US) or they have adopted the IFRS's as they are or with some slight localised adjustments to align them with applicable local legislation and/or regulations (Camfferman & Zeff, 2015; Phatshwane & Mbekomize, 2017).

With the advent of technology advancements, most accounting functions are now fully technology enabled through the use of 'accounting software packages', however, a lot is enabled with human interface playing a role in either transaction entry, reviewing, performing reconciliations, preparation of financial reports, and/or some level of analysis. It is posited that even with more advanced technology advancements such as artificial intelligence (AI) - robots are likely not going to fully replace humans in the accounting function - but instead, AI will enable humans to work more efficiently and effectively in performing their accounting roles (Pope *et al.*, 2023).

### **2.3. Complexities associated with accounting**

There are two concepts besides the variations of GAAP applicable in various jurisdictions that bring about complexity in accounting; and these are the 'accruals concept' and 'cash accounting' (Frampton & Robilliard, 2020; Pope, 2023). The 'accruals concept' means – for example revenue does not necessarily mean cash has been received, thus, the accruals concept aims to ensure all transactions are appropriately accounted for as and when the transaction occurs, whereas with the 'cash accounting' concept - transactions are only accounted for only when cash or its equivalent is exchanged (Frampton & Robilliard, 2020; Pope, 2023). When 'cash accounting' is used, or the accruals concept is not fully applied - it could cause or result in material transactions that reflect the true position of an organisation – to reflect an incorrect

position and thus result in misleading the users of financial statements and/or records (Frampton & Robilliard, 2020; Carnegie *et al.*, 2021).

Another aspect associated with accounting - is fraud – fraud was defined as a form of misconduct, accounting violation and/or transgression that can have a negative financial implication on affected parties, either directly or indirectly (Pope, 2023; Dyck *et al.*, 2024). Donald Cressey an American criminologist introduced the ‘fraud triangle’ as a concept to explain why fraud happens (Pope, 2023). The fraud triangle has the following three elements - (i) opportunity, (ii) rationalisation, and (iii) pressure (Pope, 2023). The rationalisation element has three types of perpetrators (i) intentional perpetrator - these are individuals who intentionally commit an act fully knowing it’s illegal or it’s illegal intent, (ii) accidental perpetrator - they are individuals who commit an act on the instructions of a superior, supervisor or mentor without exercising the necessary due diligence - due to loyalty dilemma, and (iii) the righteous perpetrator - one who does something to help out someone - a friend, family member - without knowing the end result could be criminal (Pope, 2023).

Creative accounting is another challenge – which is the manipulation of how transactions and economic events are captured in violation of the prescribed GAAP (ALShanti *et al.*, 2024). To curb the prevalence of such activities as creative accounting and thus protect the users of financial statements, there is need to develop and adopt appropriate accounting standards and have the practitioners – the qualified accountants – adequately trained.

### **3. Research methodology**

A systematic literature review (SLR) of accounting in emerging markets was conducted. A Scopus search with ‘accounting’ AND ‘emerging markets’ in the article title was conducted for the period 2001 to 2020 and produced 39 publications – see Figure B.1. The period 2001 to 2020 was selected as it provides the most recent 21<sup>st</sup> century insights on the practice of accounting – having a focus on the two decades enables a comprehensive assessment of identified publications to identify key themes, similarities and differences – which can then be compared to comparative decades in the past and in the future. The focus on the first two decades of the 21st century is also because this period is prior to the impact of Covid-19 (the period in 2020 to 2021 when there was a widespread pandemic that caused major shutdown of operations globally in an effort to contain the spread of the pandemic). It is suggested that a separate study should be conducted to assess the impact of Covid-19 interventions on the practice of accounting post the first two decades of the 21st century.

The identified publications were further analysed using content analysis to gain insights on the developments, challenges and opportunities with accounting in emerging markets for the period under review. To put into perspective the 39 publications identified against research on accounting from a wider global perspective - a wider Scopus search with ‘accounting’ in the article title, abstract and/or keywords produced 233,062 publications. Further limiting this search to only ‘accounting’ in the article title produced 27,699 publications. This shows that

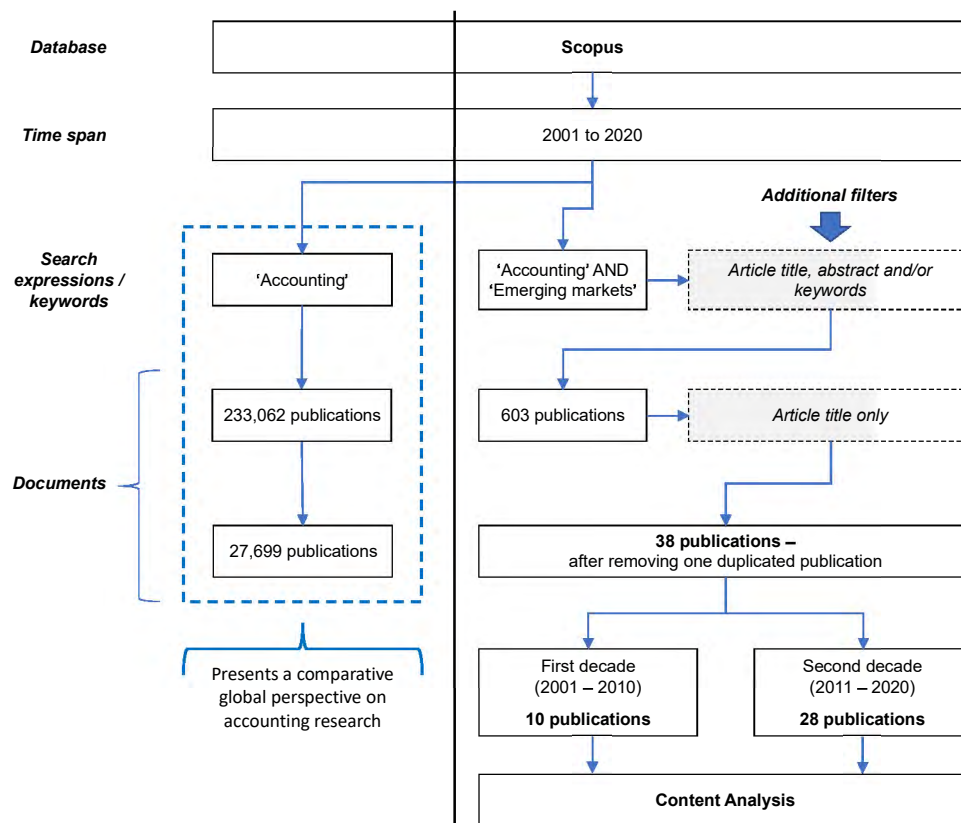
there has been a lot of research on accounting in general from a global perspective as compared to accounting research related to emerging markets.

There was a duplicated publication in 2001 from the initial identified 39 publications - after its removal, this left 38 publications – 10 of the publications were published in the earlier decade (2001 to 2010), with 28 of the identified publications having been published in the later decade (2011 to 2020). Thus, in total this review study analysed 38 publications.

Content analysis was used to evaluate the selected publications to gain insight on the development, challenges and opportunities as it relates to accounting in emerging markets – the respective findings are shown in Appendix A and B. Content analysis is a process that involves conducting a critical review aimed at assessing, critiquing, and synthesising literature from identified publications by identifying key themes, similarities and differences (Bell *et al.*, 2022).

Having analysed the 38 publications the insights gained showed that the publications were enough as the point of saturation had been reached. A point of saturation in qualitative research is a point where further analysis of additional publications would not have produced any insight that would change what would have already been discovered from that which has already been analysed (Bell *et al.*, 2022).

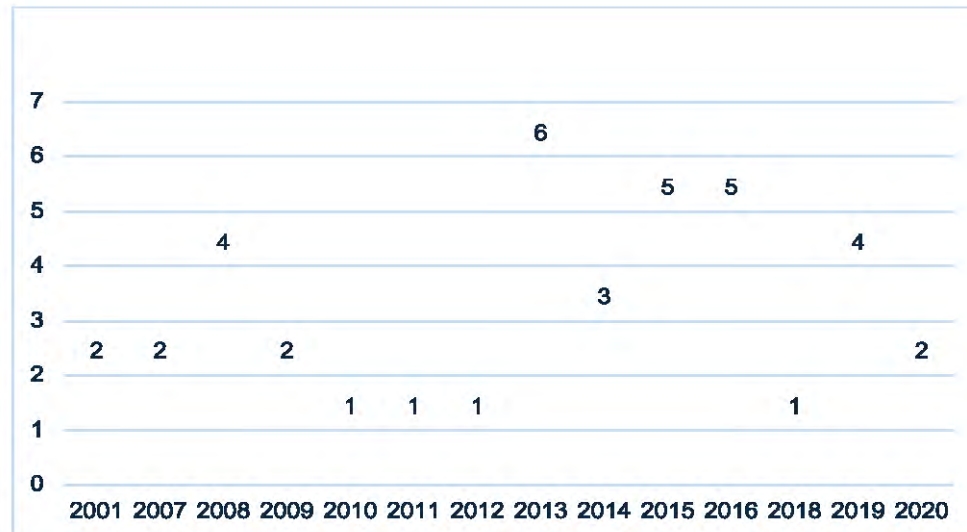
**Figure B.1: Publications selection process**



Source: Author

The breakdown of the type of publications listed in Figure C.1 is as follows: 34 articles, 2 book chapters, 1 note, and 1 review paper.

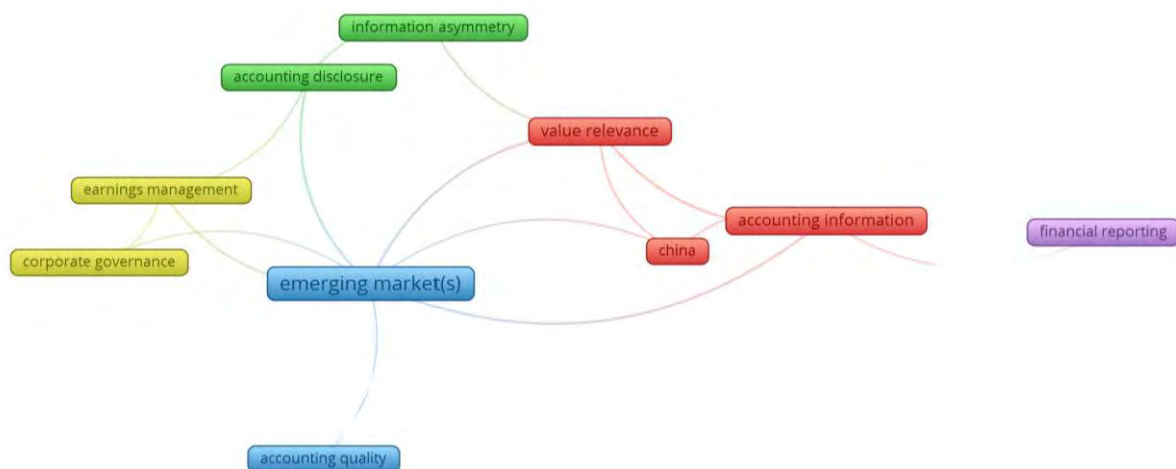
**Figure C.1: Number of publications by year - of the 38 publications**



Source: Author

A total of 122 keywords were identified and a keywords co-occurrence network map was developed using VOSviewer, based on a co-occurrence of a minimum of 2 keywords, and 12 keywords met this criterion from the 38 publications. VOSviewer is a software programme that is used to create and explore visual bibliometric networks – other researchers have used this software programme to analyse bibliometric data from academic papers (Wang *et al.*, 2023). The keywords co-occurrence network map is presented in Figure D.1, the respective twelve (12) keywords are listed in Table A.1.

**Figure D.1: Keywords co-occurrence map of the 10 interconnected keywords**



Source: Author

The 10 interconnected keywords in the co-occurrence network map Figure D.1 are clustered into five groups as follows; Cluster 1 with three items – (i) accounting information, (ii) China, and (iii) value relevance; Cluster 2 with two items – (i) accounting disclosure, and (ii) information asymmetry; Cluster 3 with two items – (i) accounting quality, and (ii) emerging market(s); Cluster 4 with two items – (i) corporate governance, and (ii) earnings management; and finally Cluster 5 with two items – (i) financial reporting, and (ii) IFRS.

The keywords occurrence as shown in Table A.1 above, highlights that the average keyword occurrence range from the identified twelve (12) keywords excluding ‘emerging market(s)’ has an occurrence of two times, thus there were three keywords that stood outside this range namely: (i) accounting information, (ii) value relevance, and (iii) accounting disclosure. These three keywords are detailed in the findings and discussion section under the sub-section on challenges with accounting in emerging markets.

**Table A.1: Keywords occurrence frequency and link strength**

Keyword	Occurrence	Total link strength
Emerging market(s)	12	11
Accounting information	4	6
Value relevance	4	6
Accounting disclosure	3	4
Earnings management	2	4
China	2	3
Corporate governance	2	2
Financial reporting	2	2
Information asymmetry	2	2
Accounting quality	2	1
IFRS	2	1
Systematic risk	2	0

Source: Author

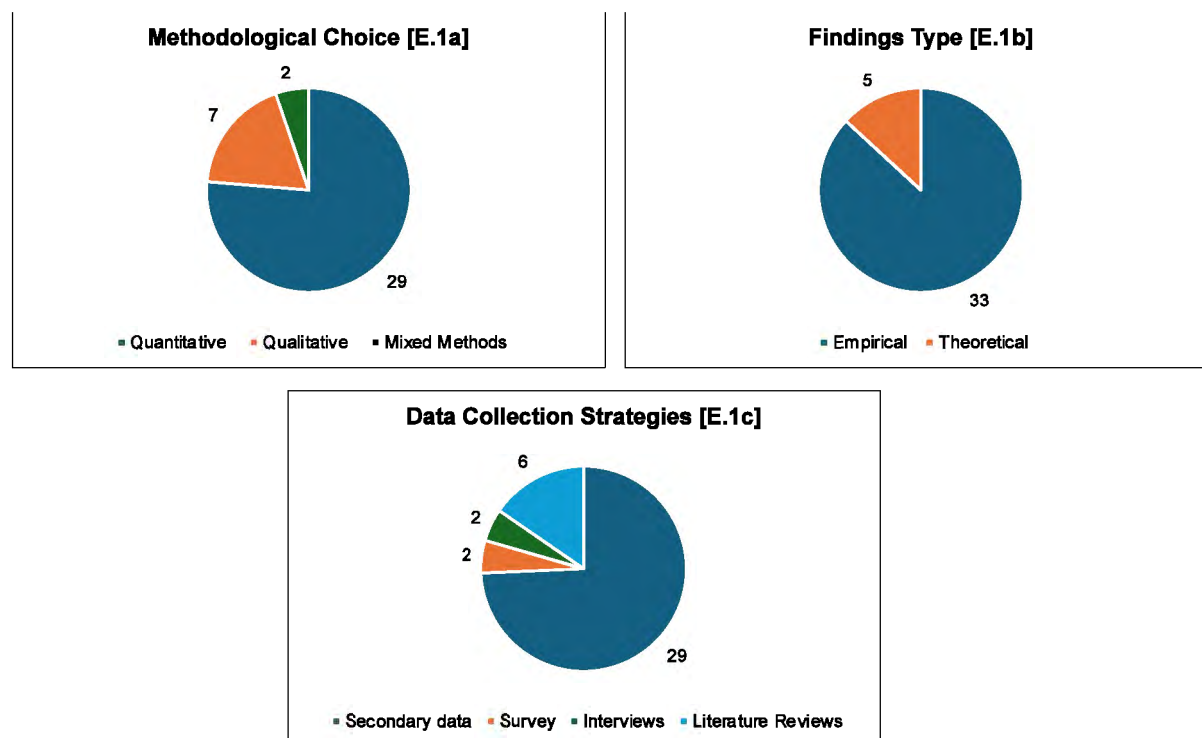
The findings and discussion section are captured under three themes namely: (i) developments, (ii) challenges, and (iii) opportunities. The three themes were identified to capture the - findings and discussion - in a way that highlights the progression of the accounting practice in emerging markets by highlighting the developments, challenges and opportunities, thus also making it easier for users of the research study to extract insights from these three themes to inform policymakers/advisors, regulators and/or practitioners.

#### **4. Findings and discussion**

An analysis of the identified 38 publications base on the methodological approaches used as well as the theoretical and empirical findings as shown in Appendix A and B is presented in Figure E.1. The findings from the identified publications are mostly empirical - at 87% - being

33 of the publications out of the 38 publications identified. Thus, this review only has 13% of the publications having a theoretical contribution to the SLR. However, only 8% (3 publications) are deemed to be - pure theoretical contributions - as the other two publications were discussants of another publication which is already part of the 38 identified publications for review in this study, which has an empirical findings contribution.

**Figure E.1: Methodological approaches of the 38 identified publications**



Source: Author

\*There was one publication that used both a 'review' and 'secondary data' as data collection strategies.

From a methodological perspective there were 29 studies that followed a quantitative approach, with 7 studies following a qualitative approach, and 2 following a mixed method approach. There was no study from the identified 38 publications for this review that followed an SLR approach; thus there was a knowledge gap in having a review study that summarily analyses and synthesises the studies on the subject of accounting in emerging markets - in the 21<sup>st</sup>-century period under review from 2001 to 2020; and provide insights as it relates to the developments, challenges and opportunities associated with accounting in emerging markets based on literature reviewed (as summarily captured in Appendix A and B).

The respective findings as synthesised are set out in the following sub-sections.

#### **4.1. Developments**

To improve standardisation in the treatment of accounting transactions, the preparation of financial statements and enable better comparison of organisational performance across different jurisdictions, the accounting standard setter IASB introduced IFRSs; other standard setters in other jurisdictions have also introduced new standards to achieve the same purpose as intended by the IFRSs, however, more for their purpose as in the case with the US GAAP introduced by the Financial Accounting Standards Board (FASB) (Hosal-Akman *et al.*, 2009; He *et al.*, 2012; Camfferman & Zeff, 2015; Phatshwane & Mbekomize, 2017).

Organisations in emerging markets struggled with the implementation of IFRSs when they were introduced, primarily due to the lack of knowledge and experience with their interpretation, convergence, and implementation; however, this was also a common position experienced globally including in developed countries as well (Hosal-Akman *et al.*, 2009). The interpretation and convergence were a challenge as there was a need to ensure alignment on the desired outcomes of both the local regulators (or standard setters) and the IFRSs being introduced, and thus realise the full benefits of the new standards in producing high quality and comparable financial statements (Hosal-Akman *et al.*, 2009; He *et al.*, 2012).

It was posited that there was increased value relevance of accounting information – the informativeness of financial statements - after the convergence of IFRSs with the applicable local accounting standards in emerging markets (Elshandidy, 2014; Bach & Hang, 2016; Khalil *et al.*, 2020). This is evidence of the benefits from the initiative driven by the IASB for the convergence and harmonisation of accounting standards. However, it was argued that not all accounting quality dimensions such as accruals quality, earnings smoothing/management, timely loss recognition and earnings persistence increased in the post-IFRS convergence (Fuad *et al.*, 2019).

The prevalence of various financial reporting scandals - resulted in accounting and auditing standards being strengthened in some emerging market jurisdictions - to align them as best as is possible with those developed internationally, specifically as it relates to accounting disclosures and audit quality (Zhou, 2007; Song, 2015). Accounting disclosure is the availing of various forms of information that enables the users of financial statements to better understand the financial statements and make more or better-informed decisions; whereas audit quality looks at the scope and depth covered as it relates to (i) audits of financial statements, (ii) audit evidence, (iii) audit reports, (iv) fraud and errors, (v) internal controls, and (vi) audit risk (Zhou, 2007).

The demands of globalisation have also exerted pressure on emerging market economies to develop accounting and financial reporting systems similar to those used in more developed economies (Ezzamel & Xiao, 2011; He *et al.*, 2012) – this pressure mostly comes from international institutions such as the World Bank, the International Monetary Fund (IMF), the big international audit firms, the IASB, the demands of foreign venture capitalists, and multinationals with investments and/or aiming to make investments in emerging markets (Ezzamel & Xiao, 2011).

The effectiveness of corporate governance – how organisations are directed and controlled (Larcker & Tayan, 2020) – was posited to have an influence on the enforcement of accounting standards and the quality of financial reporting, and that good corporate governance was a key enabler in the adoption and implementation of IFRSs by organisations based or operating in emerging markets (Ebrahim & Fattah, 2015; Song, 2015). The factors that enable effective corporate governance and high-quality audits, thus helping to reduce the cost of capital for the organisation, include (i) ownership structure, (ii) board composition, (iii) accounting, (iv) internal and external compliance checks, and (v) financial reporting (Ebrahim & Fattah, 2015).

Related to the effectiveness of corporate governance is sustainability assurance – that is the continued existence of the organisation into the future sustainably (Larcker & Tayan, 2020). There was an increased focus on sustainability reporting looking at the environmental, social and governance (ESG) matters (Nyide, 2016; Wong *et al.*, 2016; Larcker & Tayan, 2020) – it is argued that the assessment of the organisation's sustainability can be achieved through the provision of sustainability reporting and assurance services (Wong *et al.*, 2016). Accounting as a profession provides these sustainability services through (i) accounting firms (particularly the Big 4 firms), (ii) non-accounting specialist consulting firms (that specialise only in sustainability issues) and (iii) non-accounting general consulting firms (that provide general advisory/consulting services) (Wong *et al.*, 2016).

#### **4.2. Challenges**

There were various challenges identified associated with the lack of effective accounting functions in emerging markets - specifically as it relates to the informativeness of financial statements – the lack of value relevance, shown through (i) lack of sufficient accounting information and/or disclosures, and/or (ii) failure to report accounting numbers that are reflective of their true market value, that is their fair value (Lam *et al.*, 2013; Song, 2015; Qu & Zhang, 2015a). The higher the value relevance of the financial statements, the more useful they are to the users for decision-making (Lam *et al.*, 2013; Moradi, 2013; Qu & Zhang, 2015a).

Earnings determined through the accounting function are not necessarily seen to be valuable in determining the market valuation of a company – this is premised on the understanding that accounting reflects what happened in the past; whereas stock prices reflect the future expectations of the company's earnings (Jindrichovska, 2001). In this regard, it was posited that there is a need to upgrade the accounting and auditing standards to international norms – such as the ability to utilise the mark-to-market accounting or fair value accounting and thus enabling full disclosure (Jindrichovska, 2001; He *et al.*, 2012). Mark-to-market accounting is a way of measuring the fair value of assets and liabilities that fluctuate over time – more like moving the value of assets and liabilities from their historical accounting value to their fair value or current market value (He *et al.*, 2012). Though the improvement of accounting regulations was posited to increase the value relevance of earnings reported (Kumari & Mishra, 2018), it was argued that the use of fair value accounting does not necessary bring about value relevance that is any different to that of book value – especially in periods of uncertainty and where the capital markets are inefficient in determining the fair value of assets and/or liabilities (Qu & Zhang, 2015a).

Accounting regulation in general though beneficial - in some instances when seen to be over burdensome or inhibiting the achievement of certain objectives by company members – it can cause company members to manipulate accounting numbers or records (Chen & Wang, 2007). This finding is supported by findings by other researchers related to earnings management – it was posited that this practice is prevalent in emerging markets where accounting regulations and/or standards are not mature and not well enforced (Chen *et al.*, 2010; Adibah Wan Ismail *et al.*, 2013). Earnings management is a process of manipulating the accounting numbers or transactions to achieve a certain objective to un-procedurally (i) increasing profitability, (ii) low profit or show a loss, and/or (iii) smoothen the profit or loss position over several accounting periods so as to avoid spikes (Chen *et al.*, 2010; Adibah Wan Ismail *et al.*, 2013). For example, where company executives are compensated based on the profitability of the company – there could be a risk of the accounting procedures being manipulated to achieve this goal of getting higher remuneration for the executives (Chen *et al.*, 2010). It is argued that the adoption of IFRS has the potential to lower the practice of earnings management (Adibah Wan Ismail *et al.*, 2013).

These findings related to the manipulation of numbers or records and earnings management are associated with – fraud - as highlighted by other researchers such as Pope (2023), and creative accounting (ALShanti *et al.*, 2024).

#### **4.3. Opportunities**

Improved accounting and auditing regulations will likely reduce information asymmetry and improve the information environment (of public listed entities) through better accounting disclosures and audit quality (Zhou, 2007; Sami & Zhou, 2008; Al-Shattarat, 2015; Qu & Zhang, 2015b; Nnadi & Tanna, 2019; Khalil *et al.*, 2020). However, it is also argued that the introduction or improvement of auditing standards alone is not sufficient to improve accounting disclosures and that this can only be achieved with the presence of other incentives and effective monitoring mechanisms (Haw, 2008). The wider complementary aspects that result in an improved accounting environment include aspects such as corporate governance, political factors, the legal system, the competence and independence of external auditors, the relationship between financial reporting and taxation, as well as accounting/auditing standards (Haw, 2008; Sami & Zhou, 2008). It is also posited that high quality accounting and/or auditing standards result in greater investor confidence (Zhou, 2007; Sami & Zhou, 2008; Adibah Wan Ismail *et al.*, 2013; Song, 2015), which improves liquidity, and reduces cost of capital, this is more so in emerging markets (Zhou, 2007; Sami & Zhou, 2008; Song, 2015; Song & Tuoriniemi, 2016).

Accounting and the respective accounting disclosures that provide relevant information to users of financial reports can assist in assessing risks associated with the respective organisations and can also provide signals to regulators on issues to monitor or address (Dhouibi & Mamoghli, 2009; Song, 2015; Charalambakis & Garrett, 2016).

Financial statements/reporting is a key source of independently verified information for investors – if they are audited - about the performance of the organisation and as such provides information that can influence the capital allocation decisions of investors (Habib *et al.*, 2013;

Al-Shattarat, 2015). Thus, having accurate, reliable and useful financial information for users of financial statements such as lenders, investors, potential investors, regulators, creditors and/or suppliers, will be beneficial for the organisation. Some organisations in emerging markets that aim to attract foreign investment could explore getting a credit rating – as it was posited that gaining a credit rating gives confidence to the users of the financial statements, because of the rigor credit rating agencies go through in assessing the respective organisation's financial standpoint (Bae *et al.*, 2013).

The use of local GAAP or IFRSs in the accounting functions of firms operating or listing in local emerging markets stock exchanges enables their cross-listing on other global stock exchanges (Chugh *et al.*, 2014). This therefore means that regulators and investors will have a certain level of confidence in the financial statements prepared by these firms.

Management accounting is also a useful practice for small to medium enterprises (SMEs) as it enables the owner/managers as well as other stakeholders to have useful information on the performance of the respective business ventures (Vilakazi *et al.*, 2020). Accounting is also believed to assist in determining the obstacles that cause entrepreneur's business failure – it was posited that business failure is primarily due to the misalignment of the organisation to external changes leading to depleting resources and eventual collapse (Amankwah-Amoah *et al.*, 2019). The effective practice of accounting by entrepreneurs can assist to avail information to themselves and other stakeholders on the performance of their business ventures.

New asset classifications are being introduced that are within the scope of the accounting information system, as a result of advancements of technology - such as 'cryptocurrencies' – these can be better defined through accounting, by introducing common or standardised definitions, thus making it easier to account for the associated transactions and, address the respective taxation as well as foreign currency exchange gains or losses from these new asset classifications globally (Kablan, 2019). The use of cryptocurrencies is being enabled by technology developments such as blockchain technology, which is argued can also be used in advancing the functions of accounting and auditing (Kablan, 2019).

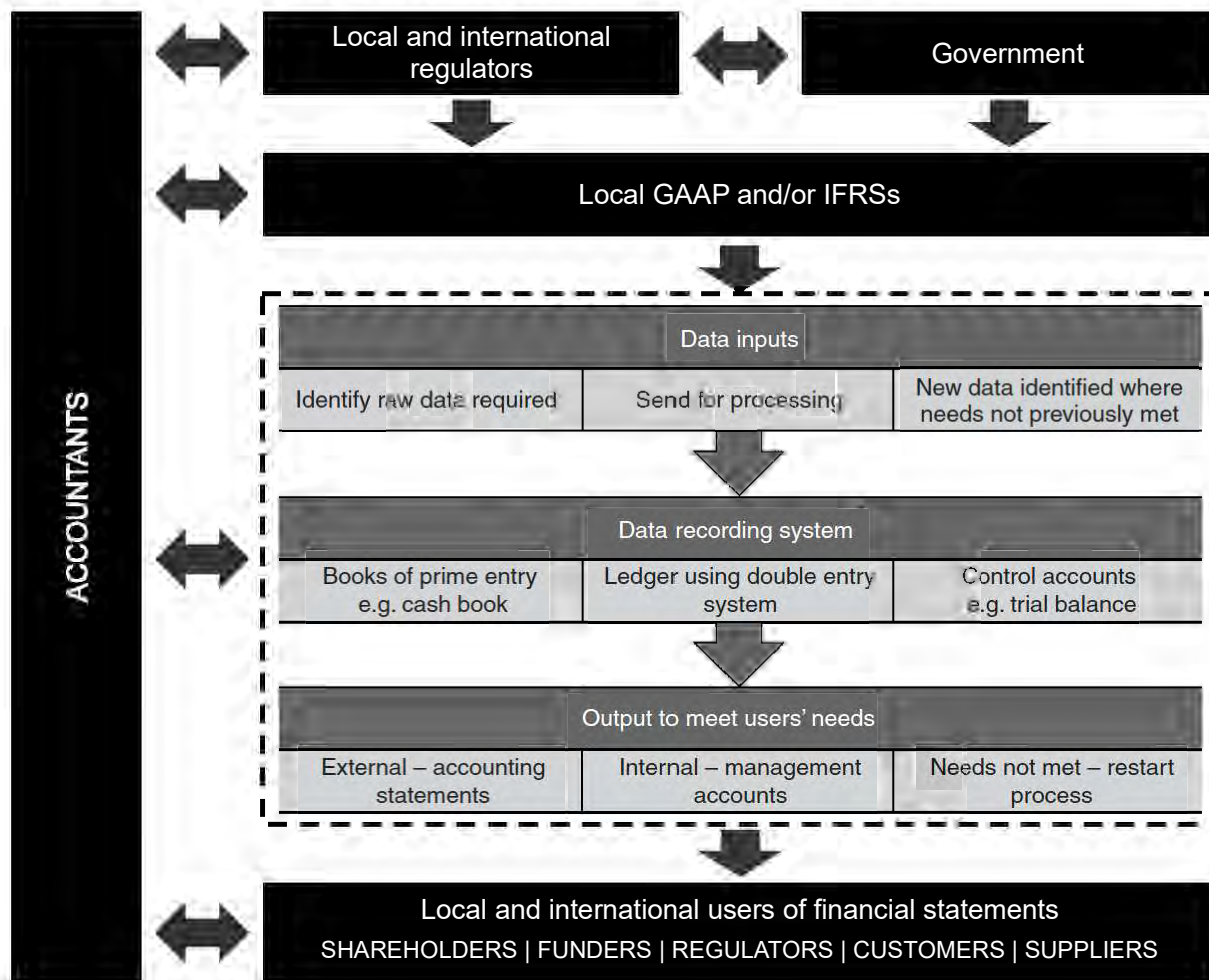
Opposed to the view that AI will displace humans in their accounting roles - the impact of AI on the practice of accounting is largely seen as an enabler to accountants in the processing of transactions - as the use of technology performs for such activities as collating data and performing calculations faster (Pope *et al.*, 2023). There are other generative AI technologies like ChatGPT which are being explored to see how they can be used in performing various accounting functions such as auditing, reconciliations and/or analysis (Pope *et al.*, 2023).

#### **4.4. *Proposed expanded theoretical accounting system framework***

The proposed framework shown in Figure F.1 shows the interaction with various stakeholders that have an influence in the general practice of accounting and thus also acts as a guide for policymakers/advisors, regulators and practitioners on their roles as it relates to the practice of accounting in general. Accountants represent the wider accounting practitioners that includes accounting executives, auditors and bookkeepers.

The clarification of the roles, the various economic actors play as it relates to the practice of accounting is important, so they can ensure that their roles are effectively executed with clarity as to what the other economic actors are expected to do, and thus leave no gaps that could ultimately result in production of financial records that will not be useful to the users of financial statements.

**Figure F.1: Expanded theoretical accounting system framework**



Source: Author with adapted input from Britton (2013)

## 5. Conclusion

This SLR has summarily presented the developments, challenges and opportunities from identified past research whose findings were mostly empirical (87% of the identified publications) and theoretical from 13% of the identified studies. From a methodological perspective most of the studies followed a quantitative approach (being 29 studies), with 7 studies following a qualitative approach, and 2 the mixed method approach. None of the studies followed an SLR approach, thus this study presents a critical summary of findings from the

identified publications on accounting in emerging markets in the 21<sup>st</sup> century period from 2001 to 2020.

Accounting information, accounting disclosures and value relevance featured prominently under the developments, challenges and opportunities identified related to accounting in emerging markets for the period under review. This is primarily due to the developments related to the adoption and convergence of local accounting standards with IFRSs in an effort to achieve standardisation and harmonisation of accounting standards, as well as ensuring that the financial statements produced are relevant to the users - as far as enabling the users of the financial statements to make informed decisions. These three terms were also identified as the top three keywords from the publications identified for this study.

It is noted that the adoption of international accounting standards (specifically IFRSs) has improved over the years, and this has enabled the presentation of comparable and high-quality financial statements around the world (Hosal-Akman *et al.*, 2009; Camfferman & Zeff, 2015; Phatshwane & Mbekomize, 2017).

The transition to using fair value accounting from historical-cost accounting, was one that had a major impact with the introduction of IFRSs in most jurisdictions that either adopted IFRSs or converged their local accounting standards with IFRSs (He *et al.*, 2012; Adibah Wan Ismail *et al.*, 2013; Qu & Zhang, 2015). This move resulted in the preparation of financial statements that were more relevant, timely, transparent and credible (Adibah Wan Ismail *et al.*, 2013).

Though accounting reflects what happened in the past and is supposed to have limited influence on the market valuation of the company (Jindrichovska, 2001) – improved accounting disclosures are likely to have a significant influence on shareholder's future activity with the company and somewhat on future cashflow expectations of the company, and thus influencing the company's market valuation.

Sustainability reporting is an accounting practice that has recently gained prominence with the increased focus on ESG - as some investors, ESG advocates, and regulators - require compliance and/or confirmation thereof, before funding is availed or operating licenses are granted by some regulators.

With the advancement of technology and the prevalence of tools such as generative AI in enabling the accounting function, it is important to explore how productivity at both individual and organisational levels can continue to be enhanced by further use of these advanced technology tools.

To enable the positioning of accounting related economic actors and clarify their roles, a theoretical accounting system framework was proposed – see Figure F.1. Thus, the proposed framework acts as a guide for policymakers/advisors, regulators and practitioners on their roles as it relates to the practice of accounting in general. The clarification of the roles the various economic actors play as it relates to the practice of accounting is important, so they can ensure that their roles are effectively executed.

### **5.1. Limitations of the study**

The major limitation of this study was the use of Scopus as the sole database for the identification of publications used in the analysis of the study as well as having a focus on the first two decades of the 21<sup>st</sup> century.

### **5.2. Proposed future research agenda**

The suggested future research include a study of; (i) the intersect of accounting and strategy as in relates to enabling the effective management of organisations; (ii) the role corporate governance plays in the accounting function and thus reduce the prevalence of earnings management in emerging markets; (iii) exploring the impact and influence of generative AI in enabling the accounting system/function; (iv) the role of financial reporting in promoting economic growth of emerging economies; (v) the benefit that can be derived from using blockchain technology in accounting and auditing; (vi) testing the effectiveness of the proposed theoretical accounting system framework in clarifying the various accounting economic actor's roles in the practice of accounting; (vii) conducting studies in the research focus area looking at developments post the first two decades covered in this research study; and (viii) conducting a study following a similar search criteria but widening the publications selection by not limiting the selected publications, such as not having the additional filter of 'article title' only.

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**Appendix A: 2001 to 2010 – 10 publications identified from the first decade**

Period	#	Author(s)	Methodological		Theoretical or Empirical Findings	Key findings related to the developments, challenges and opportunities in accounting in emerging markets
			Choice	Strategy		
2001 to 2010	1	Jindrichovska, I., 2001.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Earnings reflected via accounting are limited in their ability to influence the market value of a company because of challenges associated with the objectivity, verifiability and other conventions related to GAAP.</li> <li>Upgrade the accounting and auditing standards to international norms.</li> </ul>
	2	Zhou, H., 2007.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Financial reporting scandals have resulted in accounting and auditing standards being strengthened - to align as best as is possible with those developed internationally.</li> <li>Accounting and auditing regulations will reduce information asymmetry.</li> </ul>
	3	Chen, K.C. and Wang, J., 2007.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Accounting regulation can cause company members to manipulate accounting numbers, however, some accounting regulation is necessary to curb certain organisation misconduct.</li> </ul>
	4	Sami, H. and Zhou, H., 2008a.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Quality auditing standards can improve the quality and/or quantity of accounting disclosures, and thus improve the information environment of public companies.</li> </ul>
	5	Haw, I.M., 2008.	Qualitative	Mono-paper review	Theoretical	<ul style="list-style-type: none"> <li>Though auditing standards also significantly improve the accounting disclosure in emerging markets – this can only be achieved with the presence of other incentives and effective monitoring mechanisms.</li> </ul>

Period	#	Author(s)	Methodological		Theoretical or Empirical Findings	Key findings related to the developments, challenges and opportunities in accounting in emerging markets
			Choice	Strategy		
	6	Essayyad, M. and Desai, K., 2008.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>• Mental accounting bias has an influence in making investment decisions.</li> </ul>
	7	Sami, H. and Zhou, H., 2008b.	Qualitative	Mono-paper review	Theoretical	<ul style="list-style-type: none"> <li>• Changes to auditing standards alone would not be effective, without proper and effective implementation.</li> </ul>
	8	Dhouibi, R. and Mamoghli, C., 2009.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>• Accounting and market information can be used as appropriate measures to assess bank's risk.</li> </ul>
	9	Hosal-Akman, N., Simga-Mugan, C. and Arikboga, D., 2009.	Mixed methods	Survey	Empirical	<ul style="list-style-type: none"> <li>• Organisations in emerging markets struggled with the implementation of IFRS when they were introduced primarily due to lack of knowledge and experience, however, this was also a common point raised globally as well.</li> </ul>
	10	Chen, A., Kao, L. and Tsao, M., 2010.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>• Improved corporate governance enhances the accounting function and thus reduce prevalence of earnings management.</li> </ul>

Source: Author

**Appendix B: 2011 to 2020 – 28 publications identified from the second decade**

Period	#	Author(s)	Methodological		Theoretical or Empirical Findings	Key findings related to the developments, challenges and opportunities in accounting in emerging markets
			Choice	Strategy		
2011 to 2020	11	Ezzamel, M. and Xiao, J.Z., 2011.	Qualitative	Multi-paper literature review	Theoretical	<ul style="list-style-type: none"> <li>Globalisation has had a hand in exerting pressure on emerging market economies to develop better accounting and financial systems.</li> </ul>
	12	He, X., Wong, T.J. and Young, D., 2012.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Globalisation has created demand for international convergence in financial reporting.</li> <li>The principle of fair value accounting enables the financial records to reflect numbers that are more closely aligned to their true market value as opposed to other historical accounting methods.</li> </ul>
	13	Adibah Wan Ismail, W., Anuar Kamarudin, K., van Zijl, T. and Dunstan, K., 2013.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>The adoption of IFRS leads to higher quality of reported earnings, thus lowering earnings management.</li> </ul>
	14	Lam, K.C., Sami, H. and Zhou, H., 2013.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>There is increased value relevance as the accounting function is strengthened through better accounting and auditing standards, users of financial statements produced will have greater confidence with them.</li> </ul>
	15	Bae, K.H., Purda, L., Welker, M. and Zhong, L., 2013.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Firms in emerging markets benefit from gaining a credit rating as it gives confidence to the users of their financial statements.</li> </ul>

Period	#	Author(s)	Methodological		Theoretical or Empirical Findings	Key findings related to the developments, challenges and opportunities in accounting in emerging markets
			Choice	Strategy		
	16	Aruna, D.C. and Warokka, A., 2013.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Financial statement information has no influence on the systematic risk of the manufacturing industry – a variance that occurs due to economic factors.</li> </ul>
	17	Habib, A., 2013.	Qualitative	Multi-paper literature review	Theoretical	<ul style="list-style-type: none"> <li>Financial statements/reporting are a key source of independently verified information for capital providers about the performance of the firm.</li> </ul>
	18	Moradi, J., 2013.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>There is value relevance in accounting figures when making investment decisions.</li> </ul>
	19	Elshandidy, T., 2014.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>There is value relevance of accounting information and this is more so after the convergence of IFRSs with the applicable local accounting standards.</li> </ul>
	20	Ghosh, A.R., Ostry, J.D. and Tsangarides, C.G., 2014.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Accounting is a function which assists in tracking accumulated financial reserves and maintained by emerging market economies – and is also a source of information on the impact of foreign currency exchange rate fluctuations.</li> </ul>
	21	Chugh, S., Fargher, N. and Wright, S., 2014.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>The use of local GAAP or IFRS in the accounting functions of firms in emerging markets enables their listing on other global stock exchanges.</li> </ul>
	22	Ebrahim, A. and Fattah, T.A., 2015.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Higher compliance with IFRS requirements improves the income tax compliance levels of firm operating in emerging markets - Good corporate governance has an influence in the financial reporting quality.</li> </ul>

Period	#	Author(s)	Methodological		Theoretical or Empirical Findings	Key findings related to the developments, challenges and opportunities in accounting in emerging markets
			Choice	Strategy		
	23	Qu, X. and Zhang, G., 2015a.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>The improvement of accounting regulations has increased the value relevance of earnings reported, however, the use of fair value accounting has not necessary brought value relevance that any different to that of book value.</li> </ul>
	24	Song, L., 2015.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Superior accounting disclosure policies are helpful in managing stock market price fluctuation risk as investors will have more confidence.</li> </ul>
	25	Qu, X. and Zhang, G., 2015b.	Mixed methods	Review & Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>The betterment of auditing and accounting environment will improve the quality of financial information.</li> </ul>
	26	Al-Shattarat, H.K., 2015.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Good accounting practice is necessary to ensure dividends are determined correctly.</li> </ul>
	27	Charalambakis, E.C. and Garrett, I., 2016.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Accounting data can be used as input to provide information to predict or assess an organisation's financial distress or financial risk.</li> </ul>
	28	Wong, J., Wong, N., Li, W.Y. and Chen, L., 2016.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Accounting can assist in the provision of sustainability assurance assessments related to the provision of non-financial information on its environmental and social impact.</li> </ul>
	29	Nyide, C.J., 2016.	Qualitative	In-depth interviews at	Empirical	<ul style="list-style-type: none"> <li>Accounting can be useful in tracking the usage of materials and thus provide information to inform decisions that improve resource utilisation and minimise environmental impact.</li> </ul>

Period	#	Author(s)	Methodological		Theoretical or Empirical Findings	Key findings related to the developments, challenges and opportunities in accounting in emerging markets
			Choice	Strategy		
				mono-case study		
	30	Bach, L.T. and Hang, N.T., 2016.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>To improve the usefulness of accounting information there should be caution in the recognition and measurement of earnings and assets of a firm (timely loss recognition) – to better align the recognition principles to those of international standards.</li> </ul>
	31	Song, L. and Tuoriniemi, J.C., 2016.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Higher accounting quality results in lower cost of capital, increased access to higher loan amounts and longer debt tenure from syndicated loan financing.</li> </ul>
	32	Kumari, P. and Mishra, C.S., 2018.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Improvements in accounting regulation increases the value relevance of accounting information.</li> </ul>
	33	Fuad, F., Juliarto, A. and Harto, P., 2019.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Not all accounting quality dimensions including accruals quality, earnings smoothing/management, timely loss recognition and earnings persistence increased in post-IFRS convergence.</li> </ul>
	34	Amankwah-Amoah, J., Hinson, R.E., Honyenuga, B. and Lu, Y., 2019.	Qualitative	In-depth interviews at multi-case studies	Empirical	<ul style="list-style-type: none"> <li>Accounting can assist in determining the obstacles that can cause business failures.</li> <li>Business failure is primarily due to the misalignment of the organisation to external changes leading to depleting resources and eventual collapse.</li> </ul>
	35	Nnadi, M. and Tanna, S., 2019.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Accounting data can be used to assess the performance of companies listed on the stock exchange.</li> </ul>

Period	#	Author(s)	Methodological		Theoretical or Empirical Findings	Key findings related to the developments, challenges and opportunities in accounting in emerging markets
			Choice	Strategy		
	36	Kablan, A., 2019.	Qualitative	Literature review	Theoretical	<ul style="list-style-type: none"> <li>Accounting is necessary to accounting for cryptocurrencies transactions and introduce common or standardised definitions of these new assets globally.</li> </ul>
	37	Khalil, M., Ozkanc, A. and Yildiz, Y., 2020.	Quantitative	Secondary data analysis	Empirical	<ul style="list-style-type: none"> <li>Usefulness of accounting information is improved when there is caution in the recognition and measurement of earnings and assets of a firm (timely loss recognition).</li> </ul>
	38	Vilakazi, S.P., Stainbank, L.J. and Nyide, C.J., 2020.	Quantitative	Survey	Empirical	<ul style="list-style-type: none"> <li>Management accounting is a useful practice for small to medium enterprises (SMEs).</li> </ul>

Source: Author