

Sustainability and Environmental Reporting Assurance - The Adoption of Materiality and Completeness in SERA Practice: An Actor-Network Theory Analysis with the fieldwork conducted in India – an Emerging Economy

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THESIS SUMMARY

Sustainability and Environmental Reporting Assurance - The Adoption of Materiality and Completeness in SERA Practice: An Actor-Network Theory Analysis with the fieldwork conducted in India – an Emerging Economy

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Materiality assessment in SERA using stakeholder logic and stakeholder engagement in the SERA process is complex and difficult to problematise and conceptualise, but they are the central premises of appointing external assurers to give credibility to sustainability and environmental reporting (SER). This study investigates how materiality assessment and stakeholder inclusiveness in SERA are operationalised using a new perspective where the researcher engaged with a wide array of stakeholders besides accounting and non-accounting assurers as recommended in the literature where mostly secondary evidence was analysed. The uniqueness of this study is the consideration of non-human actants along with human actors where no a priori assumptions are made of any human or non-human actor having more power in the network. Giving voices to both human and non-human actants, tracing the connections and relationships in the sociology of associations formed to perform SERA, and the need to reassemble the social is the central focus of this study.

This study used a qualitative approach to collect data and conducted a field study using semi-structured interviews to engage with research participants and review documents before and after the interviews. Actor-Network Theory was drawn upon extensively at every stage of the research study to guide the researcher in answering the research questions. This study engaged with a wide array of stakeholders and interpreted their lived experiences and interpretations. This study chose India to collect the empirical data as it is an emerging economy and India has advanced in sustainability/integrated reporting and has even mandated it in the form of BRSR from the financial year 2022-2023. India is progressing in integrating societal governance and environmental performances with traditional economic and financial reporting, although slower than their Western counterparts. With a significant amount of reporting being done, and as an emerging economy in the world and with globalization, the importance of sustainability and environmental reporting in India is gaining more focus.

The main findings bring out the need for assurers to assess materiality and consider stakeholder logic in this assessment. The indirect SER impacts which are not obvious should not be excluded in determining SERA materiality to enhance the credibility of SER and SERA statements. Determining the scope of SERA, qualifications of assurers, management report, internal assurance, and boundary objects are the other major findings that were unwrapped in this study.

Keywords/phrases: *reassembling the social; materiality; stakeholder engagement; non-human actant; boundary objects; tracing of associations; heterogeneous flat associations*

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LIST OF ABBREVIATIONS

AA	AccountAbility
AA1000APS	AA1000 AccountAbility Principles Standard
AA1000SES	AA1000 Stakeholder Engagement Standard
AAA	American Accounting Association
AAAJ	Accounting, Auditing, and Accountability Journal
ABC	Activity-Based Costing
ANT	Actor-Network Theory
AOS	Accounting, Organisations, and Society
ASAP	Accounting Sustainability Assurance Provider
BRSR	Business Responsibility and Sustainability Report
CO2	Carbon Dioxide
CS	Cognitive Science
CS	Company Secretary
CSAP	Certified Sustainability Assurance Practitioner
CSR	Corporate Social Responsibilities
ESG	Environmental, Social, and Governance
GRI	Global Reporting Initiative
GRS	Global Recycled Standard
H	Human
IAASB	International Auditing and Assurance Standards Board

IESBA	International Ethics Standards Board for Accountants
ICAI	Institute of Chartered Accountants of India
IFAC	International Federation of Accountants
ISAE	International Standard on Assurance Engagements
ISO	International Organisation for Standardisation
ISQC1	International Standard on Quality Control 1
IR	Integrated Reporting
IT	Information Technology
MCA	Ministry of Corporate Affairs
NASAP	Non-Accounting Sustainability Assurance Provider
NH	Non-Human
NGOs	Non-Governmental Organisations
NSE	National Stock Exchange
OPP	Obligatory Passage Point
SDGs	Sustainable Development Goals
SEBI	Securities and Exchange Board of India
SER	Sustainability and Environmental Reporting
SERA	Sustainability and Environmental Reporting Assurance
USA	United States of America
UK	United Kingdom

CHAPTER 1: INTRODUCTION AND OVERVIEW

1.1 Introduction

This chapter introduces Sustainability and Environmental Reporting Assurance (SERA) practice and in particular, materiality and stakeholder inclusiveness in SERA, being the focus of this research study. Edgley et al., (2015, p.3) stated that *'Research is needed to determine what is material and how is it determined when the subject matter of the auditor's report is something other than financial data'*. This chapter positions this thesis in the sociology of accounting literature and is theoretically informed by Actor-Network Theory (ANT). The chapter begins with an opening contextualization followed by an overview of the mainstream literature and the theoretical framework. The other sections cover the research questions, research design summary, contributions, and the layout of the chapters in the thesis.

Sustainability and Environmental Reporting (SER) has been adopted by most companies as part of mainstream reporting to communicate to users their non-financial performances and corporate commitment to sustainability issues (Boiral et al., 2019; Junior et al., 2014; Perego & Kolk, 2012). The KPMG Survey of Sustainability Reporting 2020 has tracked monumental changes in SER in comparison to its first survey in 1993. Today 80 percent of companies worldwide (N100) and 96 percent of the world's largest 250 companies (G250) have resorted to SER as compared to a paltry 12 percent in 1993. This is shown in Figure 1.1 below. The N100 is the worldwide sample of 5,200 companies which includes the top 100 companies by revenue in each of the 52 countries and jurisdictions covered in the survey which are large and medium-sized companies. The G250 is the world's 250 largest companies by revenue as defined in the Fortune 500 ranking of 2019. This is a result of the growing understanding in the finance sector of the powerful impact of environmental, social, and governance (ESG) issues on financial performance and hence the corporate value (KPMG, 2020).

Figure 1. 1: Growth Rates in SER for N100 and G250 Companies Since 1993



Source: The KPMG Survey of Sustainability Reporting 2020

With SER being largely criticized for its lack of transparency, SERA practice was adopted to enhance the confidence of internal and external stakeholders and to improve the reliability and credibility of SER (Edgley et al., 2010; Moroney & Trotman, 2016; Peters & Romi, 2015). In comparison to financial auditing, SERA is not conducted using globally accepted assurance standards or in some cases even by well-established professional bodies with adequate experience and training. Some of the SERA statements are even issued based on a superficial verification and more on a commercial ground to enable the reporting companies to increase their social legitimacy (Boiral et al., 2019; Smith et al., 2011). On an overall basis, this commercial relationship between the assurator and the reporting company can compromise the professional skepticism and independence of assurers which are the significant premises of using the third-party assurance (Boiral & Gendron, 2011; Boiral et al., 2019). These major issues confirm the need for materiality assessment in SERA. Materiality assessment by assurers is justified by the complexity of sustainability reporting which is unregulated and qualitative in nature. Materiality in SERA is relevant to ensure only data that is used by stakeholders are included in the sustainability reports and hence does away with clutter. For this, assurers need to engage with all stakeholders to ensure that both

SER and SERA materiality decisions are valid. The qualitative nature of materiality in non-financial reporting and assurance makes stakeholder logic the central premise to adequately determine materiality. In the absence of relevant and reliable information about corporate material impacts, the stakeholder needs are not met, resulting in management and professional capture in SER and SERA practices (Edgley et al., 2015; Edgley et al., 2010; Jones & Solomon, 2010). Though prior literature identified significant issues in SERA, materiality assessment and stakeholder inclusiveness in SERA have been researched to a limited extent (Canning et al., 2019; Edgley et al., 2015). Prior literature used quantitative methods in the form of reviewing downloaded SERA statements in most cases. Edgley et al., (2015) used qualitative methods but limited the engagement to only assurers. This thesis is an extension of Edgley et al., (2015) research by evaluating materiality assessment and stakeholder inclusiveness in SERA practice using Actor-Network Theory. This research using the ANT framework provides a new perspective to understanding some of the issues which were identified in prior literature and has identified additional issues in the SERA process which were not considered earlier. The researcher using the notions of ANT as explained in detail in chapter 3, engages with a wide spectrum of stakeholders, besides accounting and non-accounting assurers to interpret their voices and their interpretations and get a deeper understanding of materiality assessment, stakeholder inclusiveness, and completeness in SERA process. The theory used strongly advocates the need to consider non-human actants along with human actors as part of the collective with a flat structure, which is unique and gives a different perspective for the researcher to answer the research questions (Callon, 1986; Latour, 2005; Michael, 2017).

1.2 The Contextual Nature of SERA Practice

Materiality in SER and SERA is gaining significance because of the concerns from stakeholders about the quality and credibility of these reports, in an unregulated domain. The concept of materiality originated from financial reporting and financial auditing which are based on thresholds that influenced the economic decisions of the users of financial statements who are investors or shareholders (Hsu et al., 2013). Materiality assessment in SERA is not made mandatory by the

regulatory bodies, IFAC¹ and AccountAbility², and the standards are not generally accepted. Materiality assessment in SER and SERA practices is the main guiding principle that can increase the credibility and transparency of the reports which are subject to the limitations of a discretionary leeway, considering the malleable nature of materiality in the SER and SERA processes (Beske et al., 2020; Edgley et al., 2015). Materiality is important to ensure sustainability reports disclose relevant information as it distinguishes between important and not important issues. Companies sometimes use materiality as a justification to exclude negative information. In such cases, it is a prerequisite for assurers to conduct a materiality evaluation process for the interpretation of not-disclosed information as management decides what to explicitly include and exclude from the report. Materiality consideration in SER is crucial as it will influence the company's strategy formulation and execution process as well as the risk management process (Beske et al., 2020; Junior et al., 2014)

Stakeholder inclusiveness which is a dialogic engagement with stakeholders and materiality are intermeshed in SER and SERA though they are different concepts. Reporting companies consult stakeholders but do not consider them in materiality decisions. The objective of SER and SERA is to meet the needs of stakeholders and hence engagement with stakeholders in materiality assessment and materiality decisions is the primary tenet in SERA process (Edgley et al., 2015; Jones et al., 2016; Manetti & Toccafondi, 2012).

Both these important principles in the SERA process are researched to a limited extent and hence need further research. The need for a wider stakeholder perspective was highlighted in the mainstream research on materiality and stakeholder engagement in SERA practice (Canning et al., 2019; Edgley et al., 2015). Other issues in SERA practice like types of assurers, types of assurance standards and not being generalized, understanding SERA practice, scope of assurance were also

¹ IFAC – International Federation of Accountants developed the SERA assurance standard ISAE 3000 through the International Auditing and Assurance Standard Board (IAASB) in 2005. This standard provides general guidelines and procedures for assurance engagements in non-financial contexts.

² AccountAbility – is a global consultancy established in 2015 to provide organisations with guidance on sustainable development through its sustainability standards, AA1000AS. The AA1000 series of standards include three frameworks: AA1000AS v3 – to guide assurers to assess the nature and extent to which an organization adheres to the AccountAbility Principles. AA1000SES – is the Stakeholder Engagement Standard to guide assurers to engage and communicate fairly and accurately with stakeholders. AA1000APS (2018) – Assurance Principles Standard to provide guidance to assurers on sustainability principles of inclusivity, materiality and responsiveness.

considered in prior literature (Cerbone & Maroun, 2020; Farooq & de Villiers, 2018, 2020; Perego & Kolk, 2012).

1.2.1 Materiality Assessment and Stakeholder Engagement in SERA Practice

This thesis focuses on materiality assessment in SERA and the extent of dialogic engagement by assurors with internal and external stakeholders to enhance the credibility of SER and SERA statements. Internal stakeholders are management and employees of reporting companies. External stakeholders are investors, regulators, NGOs, the community, supply chain stakeholders, and customers (Darnall et al., 2009). Using the actor-network theory as explained in Chapter 3, the researcher is guided to conduct a field study including close engagement with a wide array of internal and external stakeholders and thereby extend the earlier research to understand materiality assessment and stakeholder inclusiveness in SERA practice. This theoretical framework prompted the researcher to consider the research design where the researcher interprets the voices of the stakeholders to evaluate the major issues such as lack of adequate materiality assessment and lack of stakeholder engagement to determine materiality in SER and SERA. Non-human actants like SERA standards, SER guidelines, SERA statements, technology, internal assurance reports, and management report were also considered as part of the collective to make the interpretations (Callon, 1986; Latour, 2005). This study extended the earlier research by Edgley et al., (2015), where the engagement was only with ASAPs and NASAPs to make interpretations.

While prior research considered significant issues in SERA practice, mostly secondary evidence was used in the form of downloaded SERA statements and other publicly available documents. This is the first study to consider materiality and stakeholder engagement from a different perspective using the notions of 'translation', 'human actors', 'non-human actants', and 'boundary objects' from the ANT lens to understand how assurors engage with stakeholders and negotiate with them to assess materiality, perform assurance, and issue SERA statements. This is also the first study to engage with a wide spectrum of stakeholders and review the non-human actants before and after engaging with human actors as a collective, to make interpretations about materiality assessment in SERA, stakeholder inclusiveness, and unpack additional major issues in SERA practice. Hence, the evidence collected is all primary evidence with ANT considering both human and non-human actants as a flat structure (Latour, 2005).

1.2.2 India Context for Data Collection

Prior research in SERA was mostly conducted in advanced economies like the UK, Europe, Australia, New Zealand, and the United States. This thesis identified India to conduct the field study as the researcher was keen to understand materiality assessment and stakeholder engagement in SERA, in an emerging economy where no research has yet been performed on the assurance of sustainability reporting. There is very limited research only on sustainability reporting in India using secondary evidence in the form of a review of sustainability reports available on companies' websites (Jain & Winner, 2016; Kumar & Devi, 2015; Laskar & Maji, 2016). India is no longer considered a developing country but has advanced to acquire the emerging economy status. Sustainability reporting in the form of Corporate Social Responsibility (CSR), Integrated Reporting (IR) is growing in India with the need to make it mandatory from the financial year 2022-2023 for the top 1000 listed companies in the form of Business Responsibility and Sustainability Report (BRSR). The regulatory body in India, SEBI (Securities and Exchange Board of India) has introduced BRSR which is a form of Sustainability and Environmental Reporting. Laskar & Maji, (2016, p.12) brings out that *'Indian firms are disclosing a substantial number of items in their sustainability report'*. This implies that Indian firms are becoming more serious to communicate their responsibility toward the economy, society, and environment to the stakeholders. The accounting body in India, the ICAI (Institute of Chartered Accountants of India) is considering making SERA mandatory in the near future, with investors demanding assurance from third-party assurers. This highlights that most investors investing in companies in India are becoming increasingly aware of SERA even though it is not mandated globally. The KPMG Survey of Sustainability Reporting 2020 has highlighted India as one of the 10 countries with the highest rates of sustainability reporting. This report also indicated third party assurance of sustainability reporting is now a majority business practice worldwide.

1.3 SERA Literature – Materiality and Stakeholder Inclusiveness

Understanding SERA practice has been a positive outcome for earlier researchers in terms of investigating various issues even though SERA is still evolving and is not yet mandated. SERA practice has been in existence since 1997-1998, but the research is limited to changes developing in SER and SERA. Prior research has probed into varying issues of SERA including sustainability reporting and assurance (Junior et al., 2014), sustainability assurance: an emerging market for the accounting profession (Wong et al., 2016), seeking legitimacy for new assurance forms (O'Dwyer

et al., 2011), perceived stakeholder influences and organizations' use of environmental audits (Darnall et al., 2009), the adoption of the materiality concept in social and environmental reporting assurance (Edgley et al., 2015), stakeholder inclusivity in social and environmental reporting assurance (Edgley et al., 2010), the role of stakeholders in sustainability reporting assurance (Manetti & Toccafondi, 2012). The research conducted earlier has mostly used positivism philosophy, quantitative methodology, and secondary evidence as explored further in detail in chapters 2 and 4. Secondary evidence does not clearly disclose the information about the assurance process used by the assurers (Deegan et al; 2006a, b). Hence, earlier research gives a limited understanding of the critical issues in the SERA process.

This thesis is focusing on stakeholder inclusiveness and materiality assessment literature. These two major issues which are interlinked have very limited prior research (Canning et al., 2019; Edgley et al., 2015). Edgley et al., (2015) considered materiality assessment in SERA using the stakeholder logic. However, the empirical evidence obtained was limited to accounting sustainability assurance providers (ASAPs) and non-accounting sustainability assurance providers (NASAPs), and hence the recommendation for wider stakeholder perspectives was made to operationalize materiality in SERA. This recommendation was made to facilitate more insights into how materiality – a financial reporting and auditing concept - is operationalized in non-financial reporting assurance. This study extended on the findings of Edgley et al., (2015) and considered the voices of a variety of stakeholders besides ASAPs and NASAPs and non-human actants using teachings from Latour (2005) and Callon (1984, 1986). Canning (2019) extended the research by Edgley et al., (2015) by considering a case study with one of the Big Fours where the assurers were interviewed. Again, this study only considered assurers from one accounting firm as a case study to understand materiality assessment in SERA. This thesis by using the translation process as a notion from ANT and Boundary objects as stated earlier, engaged closely with all stakeholders and non-human actants together to obtain primary evidence to answer the two research questions. This provides a new perspective to understanding materiality assessment and stakeholder inclusiveness in SERA to extend the findings and make additional contributions to prior research.

1.4 Theoretical Context

The overarching theory used to guide this study is the actor-network theory (Callon, 1986; Latour, 2005; Law, 2006). This social theory is on the same level as other social theories as it cannot be considered superior to other theories (stakeholder, legitimacy, institutional, agency) used earlier to

understand SERA practice. What makes it different from the earlier social theories is the redefinition of social, where tracing of association is the central focus. These associations are between heterogeneous elements rather than homogeneous things which is unique to this theory. It extends the constructs of earlier theories, where regular social ties are considered a type of connection between elements that are not themselves social. Latour (1991, p.110) asserts that '*We are never faced with objects or social relations; we are faced with chains which are associations of human (H) and nonhumans (NH)*'. These notions of ANT motivated the researcher to consider the theory to understand the major issues of materiality assessment and stakeholder engagement in SERA from a new perspective and hence this study makes a theoretical contribution. Latour's ontology is constructivist and realist, where every setting is analysed as a '*flat space*' where boundaries are confirmed by empirical observations, and hence any new attachment is easily visible. This makes it different from theories used in earlier research which are based more on subjectivist and idealist philosophies (Barter & Bebbington, 2013; Latour, 2005).

The notions of '*Translation*' and '*Boundary Objects*' are used by the researcher to trace the associations between ASAPs, NASAPs, and other main actants, human and non-human (Briers & Chua, 2001; Callon, 1986; Latour, 2005). The four stages in the translation process, i.e., problematization, interessement, enrolment, and representation (Callon, 1986) are used to understand how ASAPs and NASAPs engaged, negotiated with actants to convince them of their identities as assurors, gave identities to other actants and represented them in performing SERA, making materiality assessment decisions, and issuing SERA statements.

ANT is a credible social theory because it supports interpretive empirical research. The credibility is enhanced with the non-human mundane objects, the role of materiality, and complex technologies being considered as part of social like humans (Latour, 2005). This makes the association heterogeneous with a flat structure and a single layer, though there could be distortions in the layers. The '*flatland*' metaphor is used to signal the unique way of considering stakeholders and non-human actants. There is no a priori and no jumping in a flat world, only connections with a possibility of displacements (Latour, 2005). This thesis considers materiality assessment in SERA and stakeholder inclusiveness by considering the voices and the interpretations of the wide spectrum of stakeholders selected and the review of non-human actants to get a deeper understanding and make interpretations.

1.5 Research Problems, Objectives, And Research Questions

This study is driven by three motivations as stated below to understand SERA practice and the major issues undermining the credibility of SERA statements. These motivations prompted the researcher to use ANT to guide this study and to collect data to answer the two primary research questions from a different perspective and identify other major issues in SERA practice that need attention. Considering some of the issues were already identified in earlier research, there was a need to use a different theoretical framework to consider the gap of not using primary evidence where the voices of the stakeholders and their interpretations can provide a deeper understanding of the issues in SERA practice. ANT guided the researcher to consider a wider stakeholder spectrum which was recommended by earlier research and again this was another gap identified (Edgley et al., 2015) to understand materiality and stakeholder engagement in SERA. The first motivation is:

1.5.1 Stakeholder engagement and dialogic relationship with ASAPs and NASAPs

The first motivation is understanding the extent of stakeholder engagement in the SERA process and the dialogic relationship ASAPs and NASAPs have created with stakeholders to assess materiality in SERA and to ensure material disclosures are not omitted or misstated. The literature has highlighted management and professional capture in SERA practice and in materiality assessment which is detailed in chapter 2. There is very limited research on stakeholder engagement and it is limited to evidence from secondary sources in most cases, in the form of a review of downloaded SERA statements (Ball et al., 2000; Darnall et al., 2009; Junior et al., 2014; Manetti & Toccafondi, 2012; O'Dwyer et al., 2011; Wallage, 2000). Even where the researchers engaged with stakeholders in a few studies, it was limited mostly to ASAPs and NASAPs (Edgley et al., 2010; Jones & Solomon, 2010; O'Dwyer et al., 2011). Thomson and Bebbington (2005) explain that to be dialogical and to represent stakeholder accountability, SER should involve a two-way, consciousness-raising process of mutual disclosures between companies and key stakeholders (Thomson & Bebbington, 2005). Dialogic SER will “demythologize” reality by breaking down information differences and power inequalities between management and stakeholders to bring about transparency and accountability, making SER reports more credible (Ball et al., 2000; Edgley et al., 2010; Manetti & Toccafondi, 2012). These findings from the literature prompted the researcher to address in this thesis whether SERA practice is acting as a means of improving the dialogic relationship and communication between organizations and their stakeholders. The first

primary research question to be addressed is:

RQ 1: *How can organizations (management), assurers, and standard setters have stakeholder-inclusive processes and mechanisms in place to foster the true and fair view of SER and SERA?*

Stakeholder inclusiveness is interlinked with materiality in SER and SERA. Though they mean different things, they need to be considered in conjunction to enhance the value of SERA and the credibility of SERA statements. This led the researcher to the second motivation:

1.5.2 Materiality assessment in SERA

The second motivation is understanding materiality assessment in SERA practice. Materiality in SERA is a new concept borrowed from the financial accounting and auditing terrain and needed more research. Materiality in SER and SERA enhances the transparency of the reports. This ensures completeness and accountability to stakeholders or users of SERA statements. This led to the second research question:

RQ 2: *How will materiality, completeness, and responsiveness to stakeholders in SERA enhance the credibility of sustainability reporting?*

These two primary research questions are the central focus of this thesis. The empirical evidence collected in response to these two research questions is analysed and the research findings are unpacked in chapters 5 and 6 and discussed in chapter 7. The ANT lens used in this thesis prompted the researcher to consider the following sub-questions to collect and analyse data from semi-structured interviews with research participants.

RSQ1: *What is the current inclusiveness of key stakeholders by management of reporting companies, by assurers, and by the standard setters?*

RSQ2: *How will SERA act as a means of improving this dialogic relationship between organisations and their stakeholders?*

RSQ3: *Why is core materiality, linked to economic decision-making, necessary to adopt in a new reporting field that places corporate social responsibility at its heart?*

RSQ4: *How is the concept of materiality in SERA different from materiality in financial statement audits?*

RSQ5: *How has materiality been adopted in SERA so far?*

RSQ6: *How has completeness and responsiveness to stakeholders been adopted in SERA so far?*

1.5.3 India for data collection

The third motivation is identifying India to collect the research data to answer the primary and secondary research questions. With prior research on sustainability assurance being mostly done in advanced countries like the UK, Europe, Australia, and New Zealand, the researcher was very passionate to choose India for the field study and collect empirical evidence to answer the research questions. India is an emerging economy and is no longer a developing country, the researcher was excited to engage with research participants through semi-structured interviews to understand SER and SERA practices in India. The KPMG (2020) Survey of Sustainability Reporting also indicated India as one of the top 10 countries to report on non-financial performances.

The researcher selected India to collect the empirical evidence on how the SERA process is conducted in terms of materiality assessment and stakeholder inclusiveness because of the unique factors applicable to this emerging economy that made it interesting and worth investigating.

India is one of the fastest-growing economies in the world and ranks 6th in the world in terms of GDP. When advanced countries like the USA, Japan, Europe, and other large G8 + 5 countries had slowed down in the growth or became stagnant, India and China were the only countries to have a growth rate of 7.5 % and 5.4 % respectively (Kumar & Devi, 2015). However, both India and China face material issues of poverty, inequality, environmental pollution, corruption, public health, and the like. There is pressure for private companies to have economic, social, and environmental responsibilities and contribute positively to the well-being of the nation and the society at large (Kumar & Devi, 2015).

India is a democratic country and claiming to be the world largest democracy, there are three critical factors for consideration. First the cultural and religious pluralism, where deep and persistent moral conflicts exist, the second is large social inequalities where effective participation in public decisions is a challenge and the third is the social complexity making it difficult to constitute a forum for the functioning of accountability. Hence the democratic accountability can evolve in different forms and ways than it may do in a more homogeneous environment with fewer inequalities or complexities (Cordery et al., 2022)

As early as 2013, India was one of the first countries by amending the companies Act, to prescribe expenditure for qualifying companies towards CSR. The act made it mandatory for the qualifying companies to have a CSR policy in place, constitute a board level CSR committee for oversight and implementation and disclose their activities.

Though companies in India are reporting on non-financial performances and is made mandatory for the top 1000 listed companies from financial year 2022 -2023 in the form of BRSR, there is a tendency for these companies to make disclosures only on positive contribution and avoid disclosures of negative contribution (Godha & Jain, 2015). The level and the quality of the disclosures made need improvement to support stakeholders in making their decisions (Laskar & Maji, 2016).

Indian companies have been proactive toward sustainability issues, but there are still material issues – inclusive employment, education, employment creation, health, corporate/government collaboration, land and displacement, natural resource management, climate change, corporate governance, solid waste, and water that needs to be addressed. The Indian companies need to be more innovative in their approaches to address sustainable issues (Kumar & Devi, 2015).

The need for more reliable disclosures on specific issues – like GHG emissions will continue to be demanded by investors and stakeholders. It is important for policymakers to take a longer-term view of these issues. However, with the complexity created by the lack of trust in governments' regulatory force on the one hand and the increasing public demand for transparency and regulations on the other, the sustainability issues will continue (Kumar & Devi, 2015). Some of the reporting companies have started assuring their sustainability reports.

There has been very little research done on SER and SERA in India as compared to other jurisdictions. India is now among the top emerging economies, alongside China and has attracted

more and more foreign multinationals to invest huge amounts in billions of USD in Indian markets. This has put India under pressure from foreign competitors and stakeholders resulting in further issue of mandated CSR/Sustainability reporting guidelines by the Government of India's Ministry of Corporate Affairs. This indicates India has advanced and has embraced CSR/SER to a big extent. This also indicates how culture influences businesses' attitudes toward SER. Though India operates in a low uncertainty avoidance culture, Indian companies traditionally have not easily embraced sustainability responsibilities. It is the new regulatory influence from the government which denotes that the power position and control from the government has led Indian companies to comply with and demonstrate better SER disclosures (Jain & Winner, 2016). The literature also indicates that reporting companies are not providing information on indirect economic impacts and procurement practices even though the companies discuss their commitments to environment and social responsibilities.

There is pressure just like the rest of the world on Indian companies from the public, media and the global community to take up business responsibility and accountability. However, the website communications made by reporting companies paint an optimistic picture of their SER responsibilities. Stakeholder engagement is what is needed and there is no research done on this (Jain & Winner, 2016).

It is important for investors, NGO's, special interest groups, consumers, government and stock exchanges that are keen to see increased sustainability disclosures to demand and educate companies and stakeholders on the relevance of sustainability issues.

All the above findings in the literature made me very passionate to conduct my research in India and understand how materiality and stakeholder inclusiveness in SERA is considered with the evolving changes in the macro-economic and business environment.

1.6 Overview of Ontology, Epistemology, And Methodology

This thesis has focused on giving voices to assurors and stakeholders, followed by analysis and interpretations of those voices. It is through this close engagement with ASAPs, NASAPs, and stakeholders along with non-human actants as a collective, that an understanding is gained of how human-to-human, or object-to-object relationships are not possible in social accounting. It is rather human to object or object to human relationships in a criss-cross manner that create social agency relationships and the non-human actants help to trace these relationships (Latour, 2005). Such a

stance leads to a constructionist ontology with a realism logic and not positivism or hypothetico-deductive ontology. The interpretive approach guided the researcher to develop relevant questions when engaging with stakeholders and not depend on pre-determined assumptions to operationalize materiality assessment and stakeholder inclusiveness in SERA practice (Chua, 1986; Hopper & Powell, 1985). This implies that even the less obvious actants are needed as reality is created through the interpretations of related actors. The hermeneutic epistemology is used and hence the interpretive approach avoids large sampling and data modeling of human actors. Instead, the researcher actively engages with a wide array of human and non-human actants as a collective (Chua, 1986).

1.6.1 Methodology

This research used the field study approach based on a qualitative methodology. Constructivism and interpretivism being the epistemological and theoretical positions have informed the choice of methodology. Using the notions of ANT, the researcher had to engage and understand the experiences of the research participants along with reviewing the non-human actants as part of the network. Hence using the philosophical foundations of this study, quantitative methods were rejected. Semi-structured interviews were conducted with assurors and stakeholders along with a review of non-human actants like SERA standards, reporting guidelines, SERA statements, and companies' publicly available documents. Both these sources are primary evidence, and the evidence is combined to make interpretations. The research participants were a wide spectrum of individuals across organizations such as ASAPs, NASAPs, NGOs, reporting companies, and regulatory bodies rather than a large number from a single organization. A total of 15 interviews were conducted. There could be an element of bias inherent in using semi-structured interviews. However, to ensure this risk is minimal, the interviewees were not only ASAPs and NASAPs, but a wider array of stakeholders and the use of non-human actants to trace the relationships in the network.

1.7 Key Contributions

The main contributions across empirical, theoretical, methodological, and practical are included here as a summary. These are stated in more detail in Chapter 8.

The empirical contribution made by this study relates to identifying nine major issues in SERA practice with a focus on materiality and stakeholder inclusiveness as the primary research questions. This study using the ANT lens and engaging closely with a wide spectrum of stakeholders and non-human actants as a collective unpacked these major findings. The major issues identified were interpreted by the researcher through the voices of the stakeholders and the analysis of non-human actants. The researcher traced the relationships and associations, disassociations, and reassociations between ASAPs, NASAPs, stakeholders, and non-human actants. The researcher also analysed the negotiations ASAPs and NASAPs made as main translators with other human and non-human actants. The major issue of ASAPs and NASAPs being unable to provide adequate information on materiality assessment in SERA was identified. Secondary impacts in the supply chain were not considered by assurors and management of reporting companies to make materiality decisions which could lead to huge losses to investors. Another major issue is the lack of applications and knowledge of SERA standards by ASAPs and NASAPs to make materiality decisions. The need for internal assurance practice to support non-financial reporting was identified, which can enhance the legitimacy of materiality assessment in SERA. The need for stakeholder engagement including supply chain stakeholders with a two-way dialogic relationship to determine SERA materiality was also identified. ASAPs and NASAPs along with the firms from which they operated were not complying with the qualification criteria stated in the SERA standards. The identification of these major issues is the empirical contributions that are used to make recommendations to assurors, regulatory bodies, reporting companies, investors, and society.

This research study is making a theoretical contribution by using constructs from ANT to investigate materiality and stakeholder inclusiveness in SERA in much more depth. The constructs of the theory led the researcher to focus on the reassembling of the social and the need to trace all the relationships in the heterogeneous network of human and non-human actors to perform a complete analysis. The theory supports interpretive epistemology and constructive ontology where the human and non-human actants are a flat structure resulting in rich empirical data to answer the research questions and leading the researcher to make strong empirical, theoretical, and practical contributions. Using the ANT lens, the researcher analysed the material issues in SERA relating to stakeholder inclusiveness, materiality assessment, the scope of assurance, and internal assurance from a different perspective, making a theoretical contribution. Technology, SERA statements, GRI reporting guidelines, the role of materiality, internal assurance reports, and management reports are all taken into consideration and considered as social agents and part of the network. The notion

of boundary objects which are 'sustainability' and 'assurance' were also considered which complements the translation process to trace the associations and how negotiations are made so that materiality can be 'black boxed' and credible SERA statements are issued, thus making theoretical contributions.

This research study has also made a methodological contribution by using a field approach and by conducting semi-structured interviews with a wide array of stakeholders rather than with many participants from one organization. This approach gave voices to the stakeholders and as SER and SERA are related to non-financial performances and assurance, the interpretations of the actors provide rich empirical evidence and are critical to answering the research questions adequately. The researcher also reviewed the documents, discussed them with the research participants, and reviewed them again which resulted in triangulation and provided rich data. The intermeshing of human and non-human actants as a collective and using the non-human actants to trace the connections is unique to this study and hence made a methodological contribution and significant empirical and practical contributions. Using the ontology of ANT where subjectivist-objectivist positions are complementary, the constructivist epistemology in place of social constructivism, and the interpretive methodological approach, this thesis makes a methodology contribution.

This study is making practical contributions to the accounting and assurance bodies (accounting and non-accounting assurance firms), to the management of reporting companies, to policymakers and regulators, to society, and even to academics. The practical contributions are towards the need to save the planet by making recommendations to stakeholders for strategic actions to reduce the negative impacts and risks and make use of opportunities. A materiality assessment framework is developed in this study to include the stakeholder logic and indirect impacts or the less obvious ones. Other practical contributions are by highlighting the need to address the SERA statements to stakeholders, amendments to be made to the GRI reporting guidelines and to be integrated with SERA standards, amendments to be made to SERA standards for adequate qualifications criteria for ASAPs and NASAPs, the scope of assurance to be stated clearly, materiality criteria to be stated, the need to issue management letters for every assurance engagement. The need for internal assurance practice to support reporting companies and assurers is also a practical contribution. Box 1 below gives an oversight of how the contributions made are mapped to the changes in the macro-economic and business environment, the mainstream literature, and the research questions.

Box 1 – Mapping of the Contributions Made to the Literature and to the Research Questions.

Changes in the macro economic and business environment	Literature	Research Questions/Gaps	Contributions Made
<p>Stakeholders' awareness about how our planet and society are in danger. This has resulted in the non-financial risks integrating with financial risks for companies where strategic changes are crucial to minimizing these risks.</p> <p>The need for SERA with a focus on how materiality can be assessed by assurers to give credibility to SER reports and how stakeholder inclusiveness is needed for materiality assessment and to make SERA statements credible.</p>	<p>Materiality assessment in SERA is subject to professional and management capture by investigating the homogeneous relationships between actors. Very limited research was done and was limited to secondary evidence or semi structured interviews with assurers and reporting companies. The need for wider stakeholder views on materiality and stakeholder inclusiveness is needed (Canning et al., 2019; Edgley et al., 2015)</p>	<p>Research is needed to trace the relationships of all the actors in SERA practice which are heterogeneous and how negotiations need to be made to black box materiality- to bring out the need for reporting companies and assurers to understand and consider the indirect material impacts (negative and positive, especially negative) in SER and SERA created from the business strategies, resulting in material misstatements/omissions</p> <p>RQ 1: <i>How can organizations (management), assurers, and standard setters have stakeholder-inclusive processes and mechanisms in place to foster the true and fair view of SER and SERA?</i></p> <p>RQ 2: <i>How will materiality, completeness, and responsiveness to</i></p>	<p>Empirical contributions by unpacking the 9 material issues in SERA practice with a focus on materiality and stakeholder inclusiveness.</p> <p>Using ANT for the first time to guide the researcher to collect and analyse the empirical evidence with a focus on tracing the heterogeneous relationships in the network without making any prior assumptions as the structure is a flat one gave a new perspective to investigate the 2 main research questions and unpacked other material issues in SERA practice making a theoretical contribution.</p>

		<p><i>stakeholders in SERA enhance the credibility of sustainability reporting?</i></p>	
	<p>Stakeholders were not considered by assurers in materiality assessment and the engagement with stakeholders were mostly passive</p>	<p>The qualifications of assurers need to be investigated as the stakeholders are varied and appropriate qualifications can enhance the credibility of SERA.</p> <p>The need for management report for assurers to bring out the need for materiality assessment with stakeholder inclusiveness and to highlight other issues in the reporting system.</p> <p>The need for consideration of internal assurance to enable reporting companies to monitor the internal control system and to support materiality assessment and have an inclusive stakeholder engagement.</p> <p>The need to consider boundary objects where negotiations need to be made between actors to black box materiality and to issue credible SERA statements</p> <p>The heterogeneous relationships between all the social actors with a flat structure needs investigation to understand the tracing of the relationships and to understand the reassembling of the social, with a focus on</p>	<p>Empirical and practical contributions by highlighting these major issues to assurers, policy makers, regulators, government, reporting companies and academics.</p>

		the role of non-human actants and less obvious actants.	
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1.8 Thesis Structure

The thesis is structured into 8 chapters. This chapter gives a summary of the key aspects of the research problem and the research questions developed from these key aspects. The primary research questions are supported by sub-research questions to enable the researcher to engage with research participants and understand their interpretations. This chapter sets the tone for the following chapters where a detailed understanding is laid out. This study seeks to enrich our understanding of materiality assessment in SERA and stakeholder inclusiveness in making materiality decisions and in SERA practice. There are other material issues in SERA practice that got unwrapped using the social theory to guide this study.

Chapter 2 explores and synthesizes the mainstream literature on materiality, stakeholder inclusiveness, the scope of SERA, qualifications of assurers, internal assurance, management report, SERA standards, and other aspects of SERA practice. The chapter concludes by situating this study within the context of this literature identifying the gaps of limited literature and the use of secondary evidence mostly in the form of downloaded SERA statements. The need for wider stakeholder views was also identified and taken up in this study using a social theory.

Chapter 3 lays out the details of the theoretical lens used in this study. Social theory is used to extend our understanding of materiality assessment in SERA, the need for dialogic stakeholder engagement, and other major issues in SERA practice. The rationale for selecting ANT as the social theory is explained along with its advantages and its limitations for this research study.

Chapter 4 communicates the philosophical stance of the study that creates the research design. This includes the data collection techniques and the data analysis method applied.

Chapter 5 and Chapter 6 explain the empirical findings in specific terms. Chapter 5 focuses on stakeholder engagement in the SERA process, extending the focus to primary and secondary impacts from engaging with all stakeholders, capacity building in SERA, qualifications of assurers,

independence of assurers, and the scope of assurance. Chapter 6 focuses on materiality assessment in SERA. This led to other critical aspects like the duration of the SERA process, the influence of non-human actants in the assurance process, the role of boundary objects to support assurers and to create negotiations when engaging with human and non-human actants, the need for management report and internal assurance practice.

Chapter 7, the penultimate chapter combines the context and the empirical evidence, together to address the social theory and the outcomes of the empirical evidence which is a combination of the voices of the research participants and the review of non-human actants.

The final Chapter 8 addresses the main contributions made and the conclusions drawn from the study. It links these to the original research questions and the objectives of the study. The limitations of the study and recommendations for future research are also laid out.

1.9 Conclusion

This chapter presents the major aspects of the study. The first is stakeholder inclusiveness in materiality assessment and in the SERA process. Materiality being complex and based on the needs of stakeholders, the need for assurers to engage with the stakeholders is highlighted in this study. The second is materiality assessment in SERA which enhances the transparency and completeness of SER reports. These aspects had been researched to a very limited extent and the researchers had engaged with assurers. The wider views of stakeholders to understand these major issues are considered in this study. The earlier research in SERA was mostly undertaken in advanced countries like the UK, Europe, Australia, and New Zealand. This study selected India for the field study as India is an emerging economy and is placed in the top 10 countries globally to prepare sustainability reports.

The social theory was used to guide the study where the need for close dialogic contact was needed with assurers, stakeholders, and the need to consider non-human actors together. Inductive ontology along with an interpretive epistemology was used to collect and analyse the empirical evidence. The notion of boundary objects supported the theoretical framework as 'sustainability' and 'assurance' are interpreted differently by stakeholders or users of SERA statements and hence the need for negotiations and how this is being done is investigated.

CHAPTER 2: A LITERATURE REVIEW

2.1 Introduction

Chapter 1 brought out the two important aspects, which are the core focus of this thesis. The first is the two primary research questions this thesis is considering contributing to the extent of stakeholder inclusiveness in SERA practice and materiality assessment in SERA. The second focus area is the use of social theory to collect and analyse data to answer the two research questions. This makes two areas of literature significant to this study. The first one is the exploration of ANT which is laid out in detail in chapter 3. The second area of literature relates to SERA practice with a focus on stakeholder inclusiveness and materiality assessment in SERA. It is crucial to conduct a review of the literature to position this thesis against the wider mainstream research on stakeholder inclusiveness in SERA practice, materiality assessment in SERA, and other important aspects of SERA practice. The literature review sets out the key arguments or key findings, and the indicative gaps, providing a pathway for the researcher to make potential contributions.

There have been contributions made from earlier research in enhancing stakeholder inclusiveness in SERA practice and in the need for materiality assessment in SERA using other social theories and methodological approaches. This thesis has been critical of the ontological and epistemological approaches used in mainstream literature by adopting new approaches from the ANT theoretical framework, where agency relationships are extended to even non-human elements with no prior assumptions on the power of human or non-human actors. While prior literature used secondary evidence in the form of downloaded SERA statements in most cases, this study gives voices to the human actors and accepts their interpretations which gives a deeper understanding of their thoughts and opinions. This thesis focused on collecting and analysing primary data and both human and non-human actors are considered as a singular collective by adopting a constructivist approach instead of a social constructivist approach. The ontology and epistemology used in this thesis are discussed in detail in methodology chapter 4. This thesis provides an opportunity to combine the empirics from earlier literature with lived experiences of a wide array of stakeholders besides ASAPs and NASAPs and reporting companies using a multi-case studies approach which are recommendations made from prior research (Canning et al., 2019; Edgley et al., 2015).

The literature review is mainly focused and structured around eight themes to help organize the review. The first theme is a review of how 'sustainability' and 'assurance' terms are considered in SERA practice (Section 2.3). The second theme is the review of the extent of stakeholder inclusiveness in determining materiality in the SERA process and can ASAPs and NASAPs

influence a dialogic relationship between reporting companies and the users of SERA statements (Section 2.4). The third theme is a review of how materiality decisions are made in SER and SERA and how is it different from materiality in financial statement audits (Section 2.5). The fourth one is a review of the scope of assurance, who determines the scope of assurance, and how completeness and responsiveness to stakeholders are adopted in SERA (Section 2.6). The fifth theme is a review of internal assurance as a practice and to what extent it is adopted by reporting companies. It also covers a review of the extent internal assurance can influence SER and SERA (Section 2.7). The sixth theme is a review of the literature on SERA standards, ISAE 3000 and AA1000, the differences between the standards, and how are they influencing the performances of accounting and non-accounting assurers. The review also focused on how these standards can influence the credibility of materiality and SERA statements (Section 2.8). The seventh theme is a review of the differences between ASAPs and NASAPs and the differences resulting in competition between the assurers (Section 2.9). The chapter ends with a summary of the conclusions drawn from the literature review into the next phase of the study (Section 2.10).

2.2 Approach to The Literature Search

SERA practice is in its evolving stages, with no generally accepted standards, and is not mandated yet, the mainstream literature on materiality and stakeholder inclusiveness as stated earlier is limited. Assurance being part of the accounting and auditing field, the researcher first considered the reputed accounting and auditing journals (AAA, AAAJ, AOS, Accounting Forum, British Accounting Review, Contemporary Accounting Research, and Journal of Business Ethics) in relation to SERA for the literature review. With limited prior literature available on SERA, the researcher also extended the literature review to other accounting, auditing, and business management journals. The literature on SERA reviewed in this study was since the year 2000. Exploring critically this literature highlights three important characteristics. First, it is primarily found in accounting and auditing journals, though some of the literature appeared in business and organization management journals. Second, the literature was mostly positivist and quantitative in nature with very limited literature being qualitative. The literature using a qualitative approach was limited to ASAPs and NASAPs and the management of reporting companies. Third, the literature related to advanced countries worldwide, focus is the UK, Europe, USA, Australia, and New Zealand. There were no studies on SERA practice, materiality assessment, and stakeholder inclusiveness in SERA conducted in emerging economies.

In terms of structuring the literature review, the focus areas related to this study were stakeholder inclusiveness in SERA practice, materiality assessment in SERA, the scope of assurance, and SERA standards. Other aspects of SERA like qualifications of assurers, perceptions of sustainability and assurance as boundary objects, internal assurance, and management reports were also considered in the critical review. This is because additional significant findings were unpacked from engaging with the research participants using the semi-structured interviews. There are also some aspects of SERA that were considered in the literature review but are outside the scope of this study; these are competition between ASAPs and NASAPs. The structuring of the literature review is divided into eight themes as stated in section 2.1 above and is laid out in the sections below.

2.3 'Sustainability' and 'Assurance' Terms in SERA Practice

'Sustainability' and 'Assurance' can be interpreted differently by assurers and stakeholders and are considered critical concepts in this research study. The sustainability concept is still evolving; and there is no universally accepted definition (Ackers, 2009). Hence, the sustainability definition can be varied and has a wide scope. The common question on sustainability remains '*What do we mean by sustainability?*' (Gray et al., 2014, p.225). While organizations have been considering sustainability only from the perspective of their existence in society, it is crucial to look at how organizations can also support the sustainability of the planet. Organizations have been developing strategies to ensure their sustainable existence long-term. This is done by ensuring their activities are legitimate within society to secure an operating license. To retain the license and for their long-term survival, organizations commenced preparing sustainability reports disclosing information to the public regarding their activities and strategies affecting their sustainability or stakeholders. This kind of information initially included only social performance like health and safety for employees (Unerman & O'Dwyer, 2007). As the scope of sustainability increased, the environmental and ethical performance of companies was added for reporting. These disclosures have been further extended to water and energy usage, CO2 emissions, fair trade, workplace diversity, safety technology, production environmental impacts, and even biodiversity today. These disclosures are material to both the reporting companies and stakeholders (Edgley et al., 2015).

2.3.1 Sustainability Concept

This can be interpreted differently by different individuals as it is an ambiguous and complex term (Gray, 2010). Sustainability in relation to business is laid out by Unerman (2007) as the long-term

existence which can be ensured when economic activities are socially and environmentally sustainable. This definition shows how the economic activities of corporates lead to social and environmental impacts. Often, companies interpret sustainability as a focus on their own sustainability and not in relation to also meeting societal or environmental needs. Gray (2014, p.48) brings out this interpretation as *“Sustainability, however, is something of a wolf in sheep’s clothing”*. This is because the varied perceptions of sustainability lead to varying meanings (Owen et al., 2014).

Sustainability, being a socially constructed concept, can be interpreted differently; hence, to understand how an organization accounts for sustainability, it is crucial first to understand how the organization interprets sustainability and, accordingly what it wants to account for. Stakeholders have their own interpretations of sustainability and hence their needs are different, and it is important for companies to meet these stakeholder needs to enhance the value of their sustainability reports. This makes the accountability of companies for sustainability performance subject to change and negotiations with key stakeholders. Companies could negotiate with stakeholders about what they want and do not want to report (Owen et al., 2014).

SERA practice is an accountability mechanism for reporting an organization’s sustainability disclosures. Assurors also have their interpretation of sustainability. They need to negotiate with reporting companies and other stakeholders to come to a consensus that the objective of sustainability reporting is meeting the needs of all stakeholders and not only the needs of the management of reporting companies (Canning et al., 2019; Edgley et al., 2015).

2.3.2 Assurance Concept

The term ‘assurance’ is used for the verification of non-financial reporting statements just like ‘auditing’ is used for the verification of financial reporting statements. This is because assurance does not provide the same level of verification as that in auditing financial statements (Gray et al., 2014, p.271). The term ‘assurance’ includes two verification work levels that practitioners are allowed to perform: limited and reasonable assurance (IAASB, 2010). AccountAbility organization defines assurance as a collection of *“methods and processes employed by an assurance provider to evaluate an organization’s public disclosures about its performance as well as underlying systems, data, and processes against suitable criteria and standards in order to increase the credibility of public disclosures”* (AccountAbility, 2008a). The term ‘assurance’ is extended to include

the term 'engagement' and is defined by AccountAbility as: *"An engagement in which an assurance provider evaluates and expresses a conclusion on an organization's public disclosure about its performance as well as underlying systems, data and processes against suitable criteria and standards in order to increase the credibility of the information for the intended audience."* (AccountAbility, 2008a). There is another definition provided by IAASB on assurance engagement as: *"An engagement in which a practitioner expresses a conclusion designed to enhance the degree of confidence of the intended users other than the responsible party about the outcome of the evaluation or measurement of a subject matter against criteria"* (IAASB, 2008).

These two definitions are similar in terms of assurance engagement enhancing the credibility of information for the intended users. The definition given by AccountAbility also emphasizes the need to consider the data processing system, which IAASB does not specify. This is because the assurance standards are different, based on different methodologies and principles which are explained below in section 2.8

2.3.3 The Main Findings from this Section

Though 'sustainability' and 'assurance' are two known concepts, there is limited research done to understand these concepts from a SERA perspective (Channuntapipat et al., 2019). The mainstream literature on sustainability assurance practice has mostly used secondary evidence in the form of downloaded SERA statements (Ball et al., 2000; Junior et al., 2014; Perego & Kolk, 2012; Wong et al., 2016) and hence have not considered these two terms separately and how their interpretations can vary between stakeholders and assurers.

In this study, the terms 'sustainability' and 'assurance' are considered boundary objects using this notion from ANT. These two terms are considered boundary objects because though they have different meanings to different stakeholders, they are common to all (Briers & Chua, 2001; Channuntapipat et al., 2019; Leigh Star, 2010). The researcher uses this notion of boundary objects to understand how ASAPs and NASAPs as main translators make the negotiations and bind the stakeholders together to problematize the need for SERA, problematize materiality assessment decisions and establish the Obligatory Passage Point (OPP). This term is explained in detail in chapter 3, section 3.4, sub-section 3.4.3.1. The researcher using the ANT ontology and epistemology engages with stakeholders and non-human actants like SERA statements, SERA standards, and reporting guidelines together as a collective (Callon, 1986; Latour, 2005; Michael,

2017) to understand their interpretations of these boundary objects and the role of the assurers in making negotiations. Sustainability and assurance as boundary objects complement the translation process to guide the researcher to collect data and answer the research questions. The notions of boundary objects are explained in detail in chapter 3, section 3.4 sub-section 3.4.4, and their importance in understanding the SERA process is brought to the fore again as fieldwork and discussion in chapters 6 and 7.

2.4 Stakeholder Inclusiveness with SERA Creating the Dialogic Relationship

Stakeholder engagement can enhance the credibility of materiality assessment, ensure adequate disclosures and fairness and enhance the quality of SERA statements (Manetti & Toccafondi, 2012; Torelli et al., 2020). Stakeholder engagement must be differentiated from stakeholder management which is simply managing the expectations of stakeholders in an attempt to mitigate their unmet or desired needs. Stakeholder engagement is much more critical and includes stakeholder inclusiveness in decision-making processes, management decisions, sharing information, creating a dialogic relationship, and using a reciprocal mode of accountability and responsiveness. Stakeholder engagement thus implies creating a dynamic context of interaction, mutual respect, dialogic and open to changes, not just managing the stakeholder expectations (Manetti & Toccafondi, 2012).

There are two types of stakeholders, internal and external stakeholders, that have an influence on producing sustainability reports and getting them assured. Internal stakeholders are company management and other employees who are not at the management level. Employees as internal stakeholders often initiate the organization's proactive environmental activities, and they require management support to utilise their specialized skills and knowledge. External stakeholders are regulators who contribute to the political capital. Other external stakeholders are from the broader social context like environmental and community groups, labour unions, supply chain stakeholders, customers, transporters, warehouses, and retailers (Darnall et al., 2009). These stakeholders have certain interests, and their needs must be considered when developing business strategies for non-financial performance to make sure the impacts are not causing harm to these external stakeholders. It is important to consider the perceived influence of supply chain stakeholders which may often not be obvious (Darnall et al., 2009).

2.4.1 The Extent of Stakeholder Inclusiveness in SERA Practice

In the mainstream literature, it is found that there is more management and professional capture in performing assurance of sustainability reports. Management capture is where management dominates the assurance process by defining the scope of assurance which is mostly limited to specific key performance indicators and hence may omit certain material issues in the report. Professional capture is where assurers safeguard their interests by accommodating the client's objectives and limiting the scope of verification. As a result, the entire report is not appropriately assured, material impacts may be omitted or misstated and no qualifications in SERA statements are made (Farooq & de Villiers, 2020). Both these vested interests by management and assurers undermine the organizational accountability and the interests of stakeholders. These captures reduce the transparency and completeness of SERA statements, and accountability to stakeholders (Deegan et al., 2006; Manetti & Toccafondi, 2012; O'Dwyer & Owen, 2005). Stakeholder engagement is not practiced in SER and SERA practices with management and professional capture existing (Boiral et al., 2019; Kolk & Perego, 2010; Perego & Kolk, 2012).

Considering that SER and SERA practices are more of management and professional capture, it is crucial for assurers to consider providing assistance to reporting companies to create the much-needed two-way dialogic relationship between reporting companies and stakeholders. Assurers can enforce this by bringing out these drawbacks as feedback in SERA statements. The assurers should also adopt the practice of engaging with key stakeholders and not just management or employees of reporting companies (Boiral & Heras-Saizarbitoria, 2020; Jones & Solomon, 2010). A lack of stakeholder inclusiveness will also impact the materiality assessment process which is based on meeting stakeholders' needs (Jones et al., 2016). With SERA being more of a management capture, the independence of the assurer is also questionable. Companies use external assurance to enhance the credibility of the assurance reports, but a lack of stakeholder inclusiveness in non-financial reporting and assurance affects this independence of external assurers (Hummel et al., 2019; Wong & Millington, 2014). There is more of a commercial relationship between reporting companies and assurers, which prevents assurers from questioning the reliability of disclosures made in SER. The commercial relationship often affects professional skepticism and impartiality which are characteristics of the independent external assurers (Boiral et al., 2019; Perego & Kolk, 2012). This would impact complying with the ethical standard of assurance, ISAE 3000. In such cases, the IESBA Code of Ethics for Professional Accountants becomes applicable where professional competence, independence, and objectivity are demanded to ensure the quality of the

assurance (Hummel et al., 2019). SERA has been criticized for not promoting dialogic stakeholder engagement and focusing more on validating objective facts and data (Edgley et al., 2010).

2.4.2 Extent of Stakeholder Inclusiveness in SERA Materiality Assessment

Materiality in SER and SERA is subjective in nature and as stated in section 2.5, this makes it conducive to management capture, and to manage this risk, stakeholder engagement is central. A dialogue should be enforced between management, assurers, and users regarding best practices. This dialogic engagement will balance a systems-based approach that ensures the reliability of reported information and an approach that ensures material issues disclosed are aligned to strategy and organization performance (Edgley et al., 2015).

2.4.3 SERA Influencing the Dialogic Relationship between Reporting Companies and Users of SERA Statements

Considering materiality assessment mechanisms can be different for reporting companies and for assurers, it is recommended that SERA statements should be addressed to stakeholders and not only to management. This is based on the findings that dialogic engagement with stakeholders in performing assurance is what will drive management to adopt stakeholder engagement in preparing SER (Edgley et al., 2015; Edgley et al., 2010). But in financial auditing, this dialogic relationship with users of audited financial statements is not encouraged as the financial auditors are qualified appropriately, are governed to follow the auditing standards, and are based on numbers (Edgley et al., 2015). The dialogic or direct engagement can take the form of assurers conducting interviews with stakeholders or independent surveys with them. Most of the engagement was indirect through desk or media reviews (Channuntapipat et al., 2019). AA1000 is more toward stakeholder engagement as it focuses on materiality assessment, inclusivity, and responsiveness (Channuntapipat et al., 2019). The SERA statement should be in “long form” and not “short form”, as the purpose of assurance is to meet the need of stakeholders. The ‘long form’ statement should clearly specify the scope of assurance, assurance objectives, and conclusion. The professional qualifications of each team member and details of the composition of the assurance team must be explained (Wallage, 2000). Stakeholders should insist on more detailed information on the SERA process, information on the limitations found in the sustainability reports, and the details of recommendations for improvement made by assurers (Boiral et al., 2019).

2.4.4 The Main Findings from this Section

The mainstream literature has brought out the need for stakeholder engagement and not just stakeholder management in performing SERA and in making materiality assessments which are explained in detail in sub-sections 2.4.1, 2.4.2, and 2.4.3 above. However, the literature used mostly content analysis of SERA statements, and in very limited cases, semi-structured interviews were conducted with only assurers and reporting companies (Channuntapipat et al., 2019; Edgley et al., 2015; Edgley et al., 2010) using positivist and social constructivist epistemologies. This study extends prior literature using notions of ANT to consider the interpretations made by varied stakeholders to get a deeper understanding of these issues in SERA due to the lack of stakeholder engagement in SERA practice and in assessing SERA materiality. This study also considered non-human actants like SERA statements, GRI reporting guidelines, SERA standards, and company-specific documents along with semi-structured interviews and hence used anti-positivist and constructivist epistemologies to make interpretations of the findings. This deeper understanding of the lack of stakeholder engagement in SERA practice is brought to the fore again as fieldwork in chapters 5, 6, and 7. Using the ANT lens and engaging with varied stakeholders and non-human actants to make interpretations of the extent of stakeholder inclusiveness, other major issues in SERA practice are brought to the fore which are discussed later in chapters 5, 6, and 7. The issues highlighted are the independence of assurers, qualifications of assurers, management reports from assurers, and internal assurance practice, which are brought to the fore for the first time.

2.5 Materiality Adoption in SERA and How It Varies with Materiality in Financial Statement Audit

'Materiality' in financial reporting has been considered a 'cornerstone' concept and has existed for a very long time. It enhances the 'true and fair view' of financial statements by its definition of determining errors or omissions that are significant and affects the decision-making of the users with a tolerable degree of flexibility in judgements (Brennan & Gray, 2005; Canning et al., 2019; Edgley et al., 2015; Jones et al., 2016). This is further elaborated by O'Dwyer (2019) that although academics have researched the adoption of materiality in financial auditing to a great extent the concept is still difficult to define as it is developed by various accounting bodies, common law and statute, with no common consensus being agreed (Canning et al., 2019). According to Edgley (2014), *'the meaning of materiality has not developed continuously over time but has been episodic, contingent on changes in the craft of audit, perceptions of investor needs, economic conditions, and*

financial scandals' (Edgley, 2014, p.268). Hence, materiality is still an inherently ambiguous concept. This ambiguity is further enlarged when considered in SER and SERA practices which are still evolving (Canning et al., 2019; Edgley, 2014). Wallage (2000) highlights the need for materiality in SERA along with highlighting the complexity of determining materiality. This is not only because of the wide array of SER users but also its dependence on stakeholders' decisions on what is material. Another important aspect of materiality in social accounting and social auditing is that, since it is based on users' needs, every user's needs must be considered, and ignoring the needs of even a single user can impact materiality. *'A wrongly treated human being can never be immaterial'* (Wallage, 2000, p.7). The users of SER and SERA statements must be made aware of the need to voice out their interests and intentions in the reports and this can support determining materiality adequately and ensuring completeness and accountability (Lubinger et al., 2019).

For more than two decades, sustainability and environmental reporting have been developing to include disclosers of social and environmental impacts of corporate performance to meet the needs of stakeholders and not only shareholders (Edgley et al., 2015; Wallage, 2000). Materiality disclosures have been extended to non-financial reporting and include water and energy usage, CO2 emissions, fair trade, employee working conditions, workplace diversity, safety technology, environmental impacts of production, and even biodiversity today. These disclosures affect stakeholders' decision-making and hence need to be considered in the same manner as they are considered in the financial reporting (Edgley et al., 2015; Torelli et al., 2020). SER involves disclosures of complex data where important issues may be omitted and hence materiality was considered to address these omissions or inadequate disclosures (Edgley et al., 2015; Torelli et al., 2020). KPMG's (2020) survey of sustainability reporting indicates that 80 percent of N100 companies worldwide and 96 percent of G250 companies prepare SER. With SER being adopted to a larger extent, the materiality concept in SER and SERA is becoming a central focus to ensure transparency, completeness, and timeliness (Edgley et al., 2015) of the disclosures made.

2.5.1 Materiality Adoption in SERA

With SER and SERA being unregulated, the quality of the two reports is often doubted; hence, the need to adopt materiality in the reports is the effective solution. Materiality adoption in SERA provides users the comfort that relevant information is disclosed in SER, and it reduces reporting and social risks. Adopting materiality in the SERA process provides reassurance to stakeholders of relevant, reliable information on corporate material impacts that affect business strategy,

community, working conditions, wider society, the environment, or climate change (Edgley et al., 2015; Torelli et al., 2020; Xiao & Shailer, 2021). This makes SERA materiality different from financial reporting or financial auditing materiality as it must be stakeholder-oriented and not only shareholder or market-oriented (Canning et al., 2019; Edgley et al., 2015; Jones et al., 2016). Stakeholder inclusiveness (engagement) and materiality concepts are different, but they are intermeshed, and it is crucial to consider them together to make SER and SERA more legitimate (Beske et al., 2020; Torelli et al., 2020).

There is an element of management capture in SER and SERA materiality decision-making due to the soft and subjective nature of reporting and the absence of benchmarks like a percentage of net profit or other quantitative thresholds like in financial auditing. Hence, it is important for reporting companies to state how the assessment of materiality is considered, and international standard setters like GRI have been supportive of this (Edgley et al., 2015; Farooq et al., 2021). With no generally accepted assurance standards, ASAPs and NASAPs differ in their considerations for assessing the materiality (Edgley et al., 2015; O'Dwyer & Owen, 2005). ASAPs are of the opinion that a combination of professional and stakeholder logic is needed to assess materiality. NASAPs, being more experienced in assessing risks from environmental and community perspectives, use a combination of stakeholder and commercial logic to compete in the market (Edgley et al., 2015). This results in differences in determining materiality assessments. The stakeholder and professional logic must be adopted commonly by both in SERA practice. Another important finding in the mainstream literature is the consideration of different materiality thresholds by assurers, reporting companies, and users because of their differing interests. Users have lower materiality thresholds than reporting companies with the assurers in between these. For assurers, there are factors like firm size, assessor experience, and the type of industry that decides materiality (Edgley et al., 2015). Materiality is still a vague concept in SER and SERA, the thresholds are not disclosed, and it varies with no applicable set of rules. It is considered more a social-behavioral rather than a technical concept (Carpenter & Dirsmith, 1992; Edgley et al., 2015). Stakeholders need to be made aware that materiality is influenced by some hidden factors like the assessor's culture, engagement scope, and the extent of their involvement in the SER and SERA (Al Mahameed et al., 2021; Edgley et al., 2015). There has been very limited research so far in developing criteria to determine materiality in SERA, considering the material misstatement risks are much higher in non-financial reporting assurance than in financial auditing which is based on verification of double entry booking system (Canning et al., 2019; Edgley et al., 2015). An important recommendation made in the literature is to extend the research on how materiality judgements are made by users of SERA

statements, as materiality thresholds are different for users, assurers, and reporting companies (Canning et al., 2019). There was a recommendation to use double materiality in SER where both 'financial materiality' and 'impact materiality' are considered and the need to assess the interconnectivity of the two (Adams et al., 2021). With non-financial risks integrating with financial risks, materiality is considered a socio-economic and political concept rather than a technical concept (Adams et al., 2021).

2.5.2 SERA Standards on Materiality Assessment

Materiality standards for SER and SERA must be in place both for reporting companies and assurers as the materiality concept is complex for non-financial reporting. Identifying the relevant stakeholders and understanding their needs is critical to adequately assess materiality which can help to develop a materiality matrix (Lubinger et al., 2019; Torelli et al., 2020). It is not possible to disclose all sustainability issues and hence it is important to differentiate what is material to management and what is material to stakeholders (Torelli et al., 2020). One of the major problems of non-financial reporting is ensuring completeness of disclosures from a stakeholder perspective and this indicates stakeholder involvement is the only way out to obtain the outcome of completeness. The need to meet the needs of stakeholders has been researched but engaging with stakeholders will guide reporting companies and assurers to assess and make material decisions is not researched enough (Moroney & Trotman, 2016; Torelli et al., 2020) and hence needs further consideration.

In terms of assurance, there are two standards developed by IFAC and AccountAbility to provide guidance on SERA materiality: ISAE 3000 and AA1000. IFAC and AccountAbility are the institutions providing guidance for the adoption of materiality in the SERA practice (Edgley et al., 2015). IFAC has developed the ISAE3000, which states that SERA materiality can be determined based on professional judgement, focusing on data reliability, and minimizing assurance risk. However, there is flexibility in the scope of engagement and the level of assurance which are reasonable or limited assurance. In limited assurance, the materiality is determined for specific data which is for a specific group of users (IFAC, 2010a, 2010b, para.12). AccountAbility developed AA1000 where the materiality must be considered by assurers on the entire report with no restriction in scope and is based on stakeholder logic and is linked to completeness and responsiveness (AccountAbility, 2003, 2006a). AccountAbility developed a qualitative mechanism called the 'five-part materiality test' to determine materiality. The benchmarking criteria are "policy-based performance; business,

peer-based norms; societal norms; stakeholder concerns; and short-term financial impacts” (AccountAbility, 2003, p.4).

ASAPs and NASAPs operationalise materiality differently. Though they both agree on stakeholder logic for materiality assessment, their approaches differ. ASAPs focus on verifying the effectiveness of the information technology systems that record the non-financial data without mentioning materiality assessment in SERA statements. This is because ASAPs focus on the accuracy of the report content. NASAPs focus on identifying material issues and on how the social and environmental impacts are managed and hence more useful to users. NASAPs used the materiality concept to advise on areas that need improvement by highlighting the issues in SERA statements. Hence ASAPs and NASAPs compete on a ‘systems-based approach’ Vs ‘issues-focused approach’ to determine SERA materiality (Canning et al., 2019; Edgley et al., 2015). ASAPs find it difficult to ascertain materiality in SERA as the intended users are much more varied than in financial auditing and hence this makes it challenging for ASAPs to identify the users’ needs. To determine materiality in SERA, where the use of quantitative benchmarks like in financial auditing is invalid, the only way out is for assurors to develop the skills needed to identify issues that will affect users’ decision-making (Canning et al., 2019; Moroney & Trotman, 2016).

2.5.3 The Main Findings from this Section

The literature has considered materiality assessment in SER and SERA but to a very limited extent, as stated in sub-sections 2.5.1 and 2.5.2 above. The literature has highlighted the issues of management capture, the need for stakeholder engagement, and the need for generalized reporting and assurance materiality standards. Edgley (2015) and O’Dwyer (2019) have considered the perspectives of only ASAPs and NASAPs to operationalise materiality in SERA. There was a recommendation made by them to research further by understanding the perspectives of different stakeholders as users of SER and SERA statements, as they determine materiality based on their needs. This study uses the notions of ANT where human and non-human actants are considered together as a network (Latour, 2005). Though the focus is on ASAPs and NASAPs as the main translators in the SERA process, the researcher engaged with a wide array of stakeholders to understand the SERA process and materiality assessment in SERA. The researcher considered the stakeholders’ perspectives besides assurors along with a review of non-human actants like GRI guidelines, SERA standards, and SERA statements to make interpretations. The researcher also developed a materiality framework as stated in Chapters 6 and 7. Using stakeholder perspectives

after engaging with them and bringing out their interpretations in this study, the researcher unpacked other critical issues in SERA materiality assessment and highlighted the limitations in SERA practice that were affecting materiality decisions.

Using a wider perspective by engaging with all stakeholders, discussing with them the role of relevant non-human actants, and understanding their interpretations enabled the researcher to bring to the surface critical issues in SERA standards and in the reporting guidelines which have undermined the legitimacy of materiality assessment in SER and SERA. These are discussed in the empirical chapters 5, and 6, and in the discussion chapter 7 where recommendations to make changes in the reporting guidelines and SERA standards are made.

Using the notion of 'boundary objects' from ANT (Briers & Chua, 2001; Channuntapipat et al., 2019; Star & Griesemer, 1989), this study highlights the need to 'black box' materiality even when 'sustainability' and 'assurance' are considered differently by users, assurers and reporting companies. Black box here means the materiality assessment or decisions do not need reconsideration once agreed upon by the assurer after making negotiations with other main actors in the network (Michael, 2017). The mainstream literature has only highlighted that materiality thresholds are considered differently by assurers, users, and reporting companies. This study using the ANT lens prompted the researcher to consider the notion of boundary objects and analyze how ASAPs and NASAPs need to bind together the different perspectives by engaging with human and non-human actants to make materiality decisions, make negotiations with stakeholders and non-human actants to 'black box' materiality (Latour, 2005; Michael, 2017). This may involve the reassembling of the connections in the network to consider new actants like technology or new standards or stakeholders in the supply chain for indirect impacts. These are brought to the fore in chapters 6 and 7.

2.6 Determining the Scope of Assurance and Ensuring Completeness and Responsiveness in SERA Practice

Determining the scope of assurance is the central premise of the SERA process and is decided based on materiality decisions made by ASAPs and NASAPs which are based on stakeholder, professional and commercial logic. This involves negotiations and re-negotiations to be made between the assurers and management of reporting companies (Boiral & Heras-Saizarbitoria, 2020; Channuntapipat et al., 2019; Farooq & de Villiers, 2020). Though the literature highlights the

presence of professional and management capture in determining the scope, there is limited literature on the implications of these captures on the credibility of SER and SERA and how they occur. Professional and management captures are explained in section 2.4.1 above. Professional capture results in assurors failing to provide assurance on the balance of disclosures (disclosure on all material matters, positive and negative) of reporting companies' sustainability performances. Management capture limits the scope of assurance and restricts assurors from covering all material aspects, especially the negative one's (Farooq & de Villiers, 2020; Gray, 2010; Smith et al., 2011). The literature also highlights that the scope of assurance varies from narrow (limited to contents of SER) to broad scope (includes reliability and balance of positive and negative disclosures) with SERA practice not mandated, is voluntary, and with no generally accepted standards (Farooq & de Villiers, 2020; Manetti & Toccafondi, 2012).

The literature also brings out the reasons for the limited scope which are due to the increase in costs, the time factor, the need to improve the existing systems, the need to manage the risks of exposure to legal and reputational risks from SERA engagement, and the need for ASAPs and NASAPs to create more confidence of adding more value (Farooq & de Villiers, 2020; Jones & Solomon, 2010; O'Dwyer, 2011). Management of reporting companies has been considering alternative credibility enhancement mechanisms to external assurance like internal assurance, certification, stakeholder panels, and adoption of internationally recognized standards (Jones & Solomon, 2010). These alternatives are because SERA still being voluntary and to reduce costs as assurance fees can be high. Farooq (2019) lays out another significant reason for variation in scope which is due to the two types of assurors, and they differ in their approaches, using different SERA standards. The level of assurance also determines the scope. In most cases, a limited or moderate level of assurance is demanded from reporting companies and hence management justifies the narrow scope of verification to ASAPs and NASAPs. The mainstream literature also reveals that even if the assurors want to increase the scope of assurance, they are not successful. This further confirms management and professional capture in SERA process (Farooq & de Villiers, 2020; O'Dwyer, 2011).

2.6.1 Completeness of SERA Statements and Responsiveness to Stakeholders

Completeness of SERA statements refers to the accuracy, reliability, and level of detail of the reported information. Often completeness is assumed as adequate in SERA statements without any evidence of how this completeness is ensured (Boiral & Heras-Saizarbitoria, 2020). To ensure

the completeness of SERA statements and responsiveness to stakeholders, it is crucial for assurers to ensure the GRI guidelines and the SERA standards criteria are adequately followed when performing the verification. It is also important for assurers to state the criteria used in the verification process, the scope of assurance, and the methods used to enhance the transparency of SERA statements and responsiveness to stakeholders (Boiral et al., 2019; Hummel et al., 2019). Assurers should make reference to GRI guidelines, as this will also encourage reporting companies to internalize the reporting requirements of this framework and reduce the possibilities of management capture or lack of ethics in the reporting process (Boiral et al., 2019). To ensure completeness in SERA statements and responsiveness to stakeholders, the competence and independence of assurers are important considerations. The SERA standards bring out these considerations (Boiral & Heras-Saizarbitoria, 2020; Jones & Solomon, 2010) but they are not clearly explained and the GRI guidelines make a very small mention. The outcomes of SERA should be based on the verification of reporting principles such as materiality, completeness, the balance of information, reliability, and stakeholder responsiveness (Boiral & Heras-Saizarbitoria, 2020; Manetti & Toccafondi, 2012).

2.6.2 The Main Findings from this Section

The literature on the scope of assurance, completeness of SERA statement, and responsiveness to stakeholders are brought out in section 2.6 and subsection 2.6.1 above. These main findings are critically reviewed to analyse the gaps in the literature and the potential contributions this study can provide. The literature reviewed used varied theoretical frameworks like institutional, agency, stakeholder, and legitimacy to make contributions to SERA practice. The literature has highlighted the major issues in SERA practice which are limiting the scope of verification and hence affecting the credibility of SERA statements and the accountability to stakeholders. The literature is limited to the extent that mostly secondary evidence in the form of a review of SERA statements was considered to make these contributions. To understand the major issues of management capture, and professional capture in SERA practice, this study used primary evidence and engaged with all stakeholders and non-human actants to get a deeper understanding of their interpretations of these issues. This study is then able to bring out the implications and make interpretations on how these issues can be managed effectively.

This study using the notions of 'translation', 'boundary objects', and 'non-human actants' (Callon, 1986; Channuntapipat et al., 2019; Latour, 2005; Michael, 2017) has investigated further the scope

of assurance. The theory also prompted the researcher to consider indirect impacts at the supply chain level, in addition to direct impacts, and these are voiced out by the human actors (regulators and NGOs) and interpreted by the researcher in chapters 5, 6 & 7. A management report is another significant consideration that is unpacked in this research using the theory and engaging with stakeholders. Qualifications of assurers and internal assurance are other significant findings that are discussed in this study. These significant findings have an influence in determining the scope of assurance adequately to reduce the risks of management and professional capture, enhance ethical practices, and achieve the objectives of SER and SERA.

To summarise, the scope of assurance must be based on negotiations that need to be made throughout the SERA process. These negotiations should not only take place between the assessor and the client, but also with stakeholders and SERA standards, and GRI guidelines by making amendments to these non-human actants if needed. These negotiations are needed due to the varied interpretations of the meaning of “sustainability” and “assurance” which are termed as boundary objects using the ANT theory (Channuntapipat et al., 2019; Leigh Star, 2010). The notion of boundary objects was used in this study to understand how ASAPs and NASAPs make these negotiations to determine the scope of SERA by engaging with assurers and stakeholders and discussing the non-human actants with them. This study used the anti-positivist approach and a constructivist epistemology to bring out the empirical findings which are brought out in chapters 5, 6, and 7.

2.7 Internal Assurance Adopted by SER Companies and Its Influence on SER And SERA

Prior research has considered internal assurance of sustainability and environmental reporting as complimentary to external assurance to a very limited extent (Darnall et al., 2009; DeSimone et al., 2021; Peters & Romi, 2015; Sharma et al., 2018). Internal assurance practice is on the same basis as internal audit and is performed by employees from the organization. Internal assurance is performed to ensure the internal controls of environmental management practices are in place, compliance with environmental laws and regulations and to review the company’s provisions for contingent liabilities (Darnall et al., 2009; DeSimone et al., 2021).

2.7.1 Extent of Adopting Internal Assurance to Support SER and SERA

Peters and Romi (2015) considered internal assurance as a substitute for external assurance justifying that internal assurors' competencies are at the same level as that of external assurors. Internal assurance can reduce additional high costs of getting the report assured by external assurors (Peters & Romi, 2015). This will affect the independence of the assuror which is one of the fundamental principles of external assurance. The need for sustainability reporting assurance is to meet stakeholders' needs and ensure there is no management capture (Ball et al., 2000; Cheng et al., 2015; Junior et al., 2014; Peters & Romi, 2015). If internal assurance is used as a substitute, the risk of conflict of interest is high which will undermine the objectivity of external assurance of sustainability reports.

Alternatively, other mainstream research considered internal assurance independent of external assurance and can be used to complement and support external assurors (Darnall et al., 2009; DeSimone et al., 2021; Sharma et al., 2018). The literature brought out that internal assurance was used to satisfy internal stakeholders' needs like management and employees of reporting companies by providing valuable information that supports business operations effectively (Darnall et al., 2009).

2.7.2 The Main Findings from this Section

Internal assurance was considered as a substitute for external assurance or as an additional form of assurance, as discussed above in sub-section 2.7.1. Very limited research was done to bring out the significance of internal assurance complementing SERA practice and the value it can add to the credibility of SERA practice. This study highlights the importance of internal assurance by considering the voices of ASAPs, NASAPs, and regulators when the researcher engaged with them. This study lays out that internal assurance must be considered to the extent it can support internal stakeholders to monitor and improve their management control systems. And to the extent, it can support external assurors to perform SERA, including considering indirect material impacts for verification and engaging with external stakeholders. These material findings are unpacked in chapters 6 and 7 of the thesis.

2.8 ISAE 3000 and AA1000 Standards Supporting ASAPs, NASAPs, and Reporting Companies and The Impact of The Differences in The Standards.

SERA is performed using the same principles and institutional guidance as in the financial auditing practice (Jones & Solomon, 2010; Wong & Millington, 2014). In SERA practice, there are two types of assurers who are eligible to conduct the assurance, accounting sustainability assurance providers (ASAPs) and non-accounting sustainability assurance providers (NASAPs). With no generalized assurance standards like in financial auditing, there are two types of assurance standards developed, ISAE 3000 and AA1000 (Boiral & Heras-Saizarbitoria, 2020; Manetti & Becatti, 2009; Maroun, 2019) to guide assurers. ISAE 3000 was issued in 2005 by the International Audit Assurance Standards Board providing general guidelines and procedures to conduct assurance of the non-financial reporting (Boiral & Heras-Saizarbitoria, 2020; Junior et al., 2014; Smith et al., 2011). AA1000 standard was developed in 2003 by AccountAbility, a British non-profit organization to provide principles, definitions, and requirements to assist assurers to perform the assurance appropriately (Boiral & Heras-Saizarbitoria, 2020; O'Dwyer & Owen, 2005; Perego & Kolk, 2012). There are differences in these two standards, but if they can be used complementary to each other, they can provide guidance to assurers to enhance the credibility of SERA statements, enhance professionalism in conducting the assurance, and promote reliability in the use of these standards along with accountability to stakeholders (Junior et al., 2014; Manetti & Becatti, 2009).

2.8.1 SERA Standards Providing Guidance to ASAPs, NASAPs, and Reporting Companies

GRI (Global Reporting Initiative) is a non-profit organization providing guidelines to reporting companies for non-financial reporting. These are the most widely used guidelines for sustainability reporting. The G4 version of the GRI (2013a) provides the implementation manual with a detailed description of the implementation and verification of reporting principles (Boiral et al., 2019). These principles that support the quality of sustainability reporting are not taken into consideration when developing the assurance standards and are not considered by assurers at the time of verification. ASAPs especially adopt a more procedural approach following the financial auditing principles, which may not be suitable for the verification of sustainability disclosures and issues. It is critical for IAASB and AccountAbility, the standardization organizations to state clearly the criteria that ASAPs and NASAPs need to prioritize and how these criteria need to be applied (Boiral et al., 2019) when verifying the sustainability reports. There is a need for more compatibility between the reporting and

assurance standards to ensure completeness in the verification of sustainability reports which are being overlooked by assurors and the standard-setting bodies so far (Boiral et al., 2019).

ISAE 3000 and AA1000 are not only issued by two different standard-setting bodies but they also focus on different aspects of the SERA process. ISAE 3000 is influenced by the principles of financial auditing and hence focuses more on risk assessment procedures and assurance in general. AA1000 focuses more on the process of assurance, materiality, responsiveness, and stakeholder interests (Channuntapipat et al., 2019; Deegan et al., 2006; Manetti & Toccafondi, 2012). ASAPs use more ISAE 3000, and NASAPs use mostly AA1000AS (Junior et al., 2014). While the need for generally accepted SERA standards can promote benchmarking of performances between different companies and can support a more uniform way of verification of sustainability reports (Wallage, 2000), it is challenging to generalize them due to the varied needs of stakeholders for non-financial performances.

2.8.2 Differences in ISAE 3000 and AA1000AS Impacting the Credibility of SERA Statements

ISAE 3000 is the preferred standard for ASAPs as it is developed by the financial standardization organization IAASB (International Auditing and Assurance Standards Board) (Deegan et al., 2006; Farooq & de Villiers, 2018). ISAE 3000 is a generic standard to guide assurors on a broad range of assurance engagements other than financial statement auditing, but it is developed based on concepts from the financial statement auditing (Farooq & de Villiers, 2018) practice. AA1000AP and AA1000SES are the preferred standards for NASAPs based on stakeholder inclusiveness, materiality, and responsiveness. These two standards are specifically developed to guide reporting organizations and assurors in the sustainability reporting and assurance processes (Channuntapipat et al., 2019; Farooq & de Villiers, 2018, 2020; Perego & Kolk, 2012). There are conflicting views on the preferred type of assuror for SERA. Some researchers have stated that ASAPs, having experience in financial auditing practices, are more professional and hence preferred as assurors (Wallage, 2000). Other researchers contest that ASAPs do not have adequate experience in assuring qualitative reporting; hence, their professional audit experience cannot be considered a strength in the non-financial reporting assurance (Farooq & de Villiers, 2018; Perego & Kolk, 2012). Many companies prefer ASAPs over NASAPs as they consider the ASAPs to have strong prior knowledge of the organization as they provide audit and other financial services to the same organizations and hence are an advantage from a cost and time perspective

as well as developing long-term relationships (Boiral & Gendron, 2011; Farooq & de Villiers, 2018; Jones & Solomon, 2010; Simnett, 2012).

Considering the differences in the approaches to performing SERA using the two standards, the researcher is of the opinion that these differences can impact the SERA process and the credibility of SERA statements unless the standards are used as complementary to each other. The need for assurors to engage with stakeholders is vital to understand their needs and if these major concepts are not stated clearly in ISAE 3000, the credibility of SERA statements is limited. Similarly, if the standards are not able to ensure completeness and balance of information in the verification process, SERA statements will continue to be more of a management tool to market their reputation rather than meet the needs of stakeholders. Professional and management capture will continue to dominate SER and SERA practices.

2.8.3 The Main Findings from this Section

Prior literature used mostly quantitative methods and reviewed SERA statements along with SERA standards to bring out the issues in SERA standards and the differences. The researcher in this study using the notions of ANT and its ontology and epistemology considered engaging with a wide array of stakeholders and discussing the SERA standards, GRI guidelines, and materiality assessment with them to get a deeper understanding and evaluate their interpretations. The regulators (stakeholders) voicing their interpretations highlighted the lack of understanding by ASAPs and NASAPs of the SERA standards and GRI guidelines. They also voiced that the reporting companies were not familiar with the assurance standards when preparing the reports. These material issues are discussed in detail later in chapters 5, 6, and 7. Using the notions of translation and non-human actants from ANT, the researcher unpacks other material issues like qualifications of assurors, and management report which is not embedded in a clear manner in the SERA standards. These are also not considered in prior literature and are discussed in Chapters 5, 6, and 7.

2.9 The Extent of Differentiation Between ASAPs and NASAPs Resulting in Competition Between Them

This theme is not directly a part of this study but has been covered in the literature review. With SERA being in its evolving stage, the assurors are of two categories, accounting sustainability

assurance providers (ASAPs) and non-accounting sustainability assurance providers (NASAPs) (Channuntapipat et al., 2019; Junior et al., 2014; Peters & Romi, 2015). ASAPs are individuals or organisations, or bodies who are qualified to conduct external assurance for companies or NGOs and follow the IFAC assurance methods and practices using ISAE 3000 assurance standard. NASAPs are certification bodies, NGOs, professional individuals or opinion leaders, trade associations, and even academic institutions and they use the AA1000 standard and not the IFAC standard (Manetti & Toccafondi, 2012).

2.9.1 Differentiation Between ASAPs and NASAPs

The literature laid out the differences between ASAPs and NASAPs; in how they function and in their professional capacity. ASAPs are independent professional accountants, liable to follow professional conduct and must adhere to professional standards. This results in quality output in the SERA statements. NASAPs being third-party consultants have expertise in the subject matter but are different as they do not have professional conduct or independent status like professional accountants (Peters & Romi, 2015). Another significant difference laid out is that ASAPs are mostly used as assurers to conduct sustainability assurance as they are used by the same companies to do their financial auditing, hence the assurers have in-depth knowledge of the reporting organisations, which can save cost and time. ASAPs are mostly the Big Four who conduct assurance of sustainability reports (Boiral & Heras-Saizarbitoria, 2020; Jones & Solomon, 2010; Simnett, 2012).

Some more differences highlighted in the mainstream literature between ASAPs and NASAPs are regarding ASAPs having a stronger reputation for integrity, professional skepticism, and assurance expertise. They also have a unique in-depth knowledge of evidence, information systems, and how to coordinate with other third parties and specialists. They are considered to provide higher quality assurance and hence more preferred. Non-accounting assurers while having subject matter expertise, do not adhere to a professional code of conduct and independence (Casey & Grenier, 2015; Wallage, 2000). Edgley (2015) highlights the use of professional logic by ASAPs in conducting SERA and NASAPs use stakeholder logic as they follow the guidance of stakeholder organisations like the GRI and AccountAbility and ASAPs and NASAPs compete on this basis for the materiality assessment (Edgley et al., 2015). One more difference in the mainstream literature is that ASAPs provide limited assurance in most cases and hence follow a limited approach. NASAPs provide a higher level of assurance with their expertise in specific subject matters (Wong

& Millington, 2014). However, the same study highlights that ASAPs are more in demand due to their reputational capital. It also highlights the independence of ASAPs and hence a higher level of stakeholder trust in the assessor.

Another interesting finding highlighted in prior research is the existence of two additional types of assurance practices. The first one is an independent third-party review performed by stakeholder panels, academic institutions, NGO's and presidents/directors of international institutes who have knowledge of sustainability reporting. The assurance statements issued in this case are called 'Third Party Comment' or a 'Third Party Review' or 'Stakeholder or Specialist Review'. However, these statements differ from the SERA statements provided by ASAPs and NASAPs. Hence, even though they comment on the quality of SER and provide inputs on how to improve the quality, they provide no assurance (Junior et al., 2014). The second type of assurance newly developed is called the 'Mixed Approach' where a combination of an accounting firm and a non-accounting firm or an accounting firm with a stakeholder or specialist review is used. Each assessor will work independently on a specific part of the report and issue separate SERA statements, and these statements are the two reports put into the sustainability reports (Junior et al., 2014) There is limited research done with respect to these types of assurance services.

2.9.2 Differentiation Between ASAPs and NASAPs Leading to Competition Between Them

With the lack of generally accepted assurance standards and lack of consensus on who should perform the assurance of sustainability reporting, ASAPs and NASAPs have been competing and pursuing their own economic, professional, and ideological interests (Farooq & de Villiers, 2018; Jones & Solomon, 2010; Martínez-Ferrero & García-Sánchez, 2018; Perego & Kolk, 2012). The differences between ASAPs and NASAPs have been laid out in sub-section 2.9.1 above, and there are contradictory views on the preference of ASAPs over NASAPs. ASAPs are said to be preferred as assessors because they are independent and have professional experience in the financial auditing practice (Wallage, 2000). Critics have a conflicting view that ASAP, even with professional experience, are not experienced in assuring such qualitative reports and often tend to resort to financial auditing procedures unsuitable for SERA (Farooq & de Villiers, 2018; Perego & Kolk, 2012). With NASAPs using stakeholder logic in performing assurance, they seem to engage more with stakeholders. They compete with ASAPs by understanding the needs of stakeholders and establishing a niche market for themselves (Edgley et al., 2015).

2.9.3 The Main Findings from this section

After considering the differences between ASAPs and NASAPs above, it is evident that the SERA standards need to be generalized. This will bring about generalizing the qualifications for assurers with standard criteria to perform the assurance and issue SERA statements. This study is the first one to investigate the qualifications of ASAPs and NASAPs. The qualifications criteria are not stated clearly in ISAE 3000, and even in AA1000, there are limitations in the qualifications. This is brought to the fore in Chapters 5 and 7. While the ASAPs and NASAPs compete, the qualification criteria must be clearly stated and understood, and applied by assurers and reporting companies. The GRI reporting guidelines must make mention of the qualifications in the standards. Sustainability reporting being qualitative and based on meeting the varied needs of stakeholders, it is difficult to generalize the SERA standards. Hence, it is crucial to amend the standards to be clear about the qualifications and the independence criteria for assurers. Stakeholder inclusiveness in developing the standards is another significant criteria. These are discussed in detail in Chapters 5 and 7.

2.10 Conclusion

SER and SERA have been considered in the literature to make useful contributions, but to a limited extent in relation to materiality and stakeholder inclusiveness (Adams et al., 2021; Canning et al., 2019; Edgley et al., 2015; Jones et al., 2015). These practices are continuing to evolve with SERA not made mandatory and the reporting and assurance standards not yet generalized. Secondary evidence in the form of a review of SERA statements was considered in most of the prior research. Semi-structured interviews were considered in very few studies and were limited to assurers and reporting companies (Canning et al., 2019; Edgley et al., 2015).

With the way the planet and society are continuing to be neglected and harmed, the non-financial risks are getting integrated into the financial risks, and these must be communicated, and companies must provide accountability for the direct and all indirect impacts. SERA is being adopted by reporting companies to a greater extent to give credibility to SER. Materiality assessment and stakeholder inclusiveness in the SERA process are critical to enhancing the credibility of SER and SERA statements. Several gaps in SERA practice are brought out in the above sub-sections of this chapter and need further academic attention. They are summarized here again as the first one being the need for assurers (ASAPs and NASAPs) to negotiate with stakeholders to make materiality assessment decisions as stakeholders are varied and hence have

different perceptions of what is 'sustainability' and what is 'assurance'. This will result in making organisations engage with stakeholders and adopt a culture of discovering, prioritizing, and integrating sustainability business issues. The second one is the need for stakeholder inclusiveness to the extent of indirect and less obvious stakeholders which are usually in the supply chain and were not considered in the literature. The third one is the need to alter the Materiality Assessment criteria in the SERA standards from professional judgments to stakeholder logic including the stakeholders in the entire value chain. The fourth one is highlighting that SERA materiality and stakeholder inclusiveness are intermeshed unlike in financial auditing which is number based. This is because non-financial reporting involves varied disclosures, and everything cannot be incorporated into the reports as it will result in a clutter of information rather than meeting the needs of users of SER and SERA. It is critical for assurers to assess what is material and this needs inclusive engagement with all stakeholders including the less obvious ones. The fifth gap brought out is the need to give voices to a wider array of stakeholders to understand materiality assessment, and the extent of stakeholder engagement in SERA materiality decisions and in the SERA process. The sixth one is about the need for consideration of all non-human actants along with human actors without making a priori assumptions of the hierarchy of power of any specific actants. An actant like technology or a less obvious one which could be an animal or abstract terms like sustainability, assurance, materiality, assurers qualifications, internal assurance, management reports can be significant actants to ensure the SERA process is conducted appropriately and the seventh one highlighted is about the appropriate qualifications of assurers (ASAPs and NASAPs) and the monitoring of the qualifications.

There are four specific aspects of SERA practice that this study is exploring further to answer the research questions. Firstly, materiality assessment in SERA practice, secondly stakeholder inclusiveness in assessing SERA materiality and in SERA practice, thirdly the qualifications of ASAPs and NASAPs and lastly the consideration of non-human actants along with human actors and boundary objects. The literature review has provided some findings on materiality and stakeholder inclusiveness but to a limited extent. To extend on earlier research, the researcher was passionate about using a different social theory called Actor-Network-Theory which guided the researcher to engage with a wide array of stakeholders and consider their vocal interpretations of important aspects of SERA practice. This study has responded to the call from Bruno Latour 2005, 'Reassembling the social' to have an in-depth understanding of materiality assessment, stakeholder inclusiveness, and assurers qualifications in SERA practice where the focus is on tracing the relationships in the associations. These relationships are made of human and non-human actants

as a collective and no prior assumptions can be made about any specific actor having more power. The agency status is given to non-human actants and the structure has no macro, meso, and micro layers, but is rather a flat structure where negotiations need to be made because of the existence of boundary objects (Barter & Bebbington, 2013; Briers & Chua, 2001; Latour, 2005; Michael, 2017). It is important for a complete analysis of materiality assessment; stakeholder inclusiveness and the SERA process, that the relationships between the actants, human or non-human should be traced and how the negotiations are made for the translation to be successful. Using ANT and the specific constructs in this study gave a new perspective to understanding materiality assessment and stakeholder inclusiveness. ANT also supports an interpretive and constructionist philosophical approach where voices are given to the research participants along with a review of non-human actants to collect rich data to answer the research questions. ANT framework and the notions of ANT used in this study are explained in Chapter 3 below.

CHAPTER 3: THEORETICAL FOUNDATIONS

3.1 Introduction

Social theories have been used to explain SERA practice through the contribution of recognized researchers. Social theories are useful in predicting the relationships between actors and how they are placed in society (Jack, 2016). Actor-Network Theory (ANT) is a social theory that is used to trace a trail of associations between heterogeneous elements (Latour, 2005, p.5). While most social scientists would prefer to consider 'social' a homogeneous thing, Latour (2005) brings out the 'social' as a *'type of connection between things that are not themselves social'* (Latour, 2005, p.5). ANT is an extension of the existing social theories and is used in this study to understand SERA practice and answer the research questions using a different perspective.

The chapter begins by outlining the genesis of ANT. This is followed by justifying the attraction of using ANT in this study though there are other alternative social theories that could have been suitable to answer the research questions. The next section is about the notions of ANT used and operationalized in this study. This is followed by a section on the use of ANT in accounting research. The next section considers the growing literature on how ANT is used in empirical research with relevance to this study. The final section sets out the critiques of ANT before drawing together the various theoretical threads to conclude this chapter.

3.2 Genesis of Actor-Network Theory

Social theories have been developed over a long period of time. However, there is no one singular theory that can govern how society performs. This implies there is no consensus on any theory. This thesis has considered ANT to guide the researcher in answering the research questions. ANT is based on the works of Bruno Latour, Michel Callon, and John Law (Barter & Bebbington, 2013; Callon, 1984; Channuntapipat et al., 2019; Justesen & Mouritsen, 2011; Latour, 2005; Michael, 2017; Wæraas & Nielsen, 2016). Latour's writings and his book *'Reassembling the social'* have focused on redefining the notion of social as tracing of connections again. It is about tracing how these connections are produced and reproduced, ordered, and disordered. These connections are not just social, but heterogeneous. They include the role of non-humans and humans. The non-human is made of mundane objects, exotic technologies, text of all sorts, non-human environments, and animals (Michael, 2017). In 1986, (p.276) Latour wrote: *"No matter how much 'power one appears to accumulate; it is always necessary to obtain it from others who are doing the action... Thus, it is always necessary to redefine who is acting, why it is necessary to act together, what are*

the boundaries of the collective, and how responsibility should be allocated” (Latour, 1986, cited in Michael, 2017, p.21). This implies that in ANT theory, assumptions cannot be made that the actors in the network possess the power by themselves. The framework is used to trace how the main actors (translators) exercise power by engaging with other main actors (human and non-human) which are heterogeneous, and how they negotiate and convince them to associate together and perform translations on their behalf to meet the objectives of the translators which are aligned to the needs of the other actors.

ANT is based on a ‘constructivist’ epistemological approach which is different from the social constructivist approach used in other social theories. Latour (2005) brings out this difference:

‘When we say that a fact is constructed, we simply mean that we account for the solid objective reality by mobilizing various entities whose assemblage could fail; ‘social constructivism’ means, on the other hand, that we replace what this reality is made of with some other stuff, the social in which it is ‘really’ built. (Latour, 2005, p.91)

The above quote demonstrates that ANT is also based on the *anti-reductionist* approach where observations are not replaced or reduced to general explanatory factors *‘behind’* the scene or *‘underneath’* the surface. This implies that every setting must be analyzed as a *‘flat space’*, indicating empirical observations set the boundaries of the setting. This flatness of the social world ensures clear visibility of any new attachment. This makes Latour’s epistemology a constructivist and realist one and is far from subjectivist and idealist philosophies (Justesen & Mouritsen, 2011; Latour, 2005). ANT guides the researcher when conducting analysis to get into the middle of the action and observe it (action and processes) and avoid analysis based only on societal explanations or solely on those from the natural world. With ANT, there is no demarcation of what should be included and what should be omitted (Barter & Bebbington, 2013; Latour, 2005). This supports the *duality (subjectivist-objectivist) ontology*. Law (1992, p.4) brings out this ontology by *exploring what he as a sociologist would be if his computer, colleagues, office, books, desk, and telephone were taken away. He would be something else other than a sociologist writing papers*. Hence, the agency is a patterned network of heterogeneous relations between the human and the non-human and is social/natural in form (Barter & Bebbington, 2013; Callon, 1986). These concepts in Ant are brought out later in this chapter in detail.

3.3 Justification for Using Actor-Network Theory

Given the diversity of social theories to understand SERA practice, it is important to justify the use of actor-network theory in this study. Using ANT to answer the research questions does not invalidate the theories used earlier. Each of the theoretical approaches has yielded interesting outcomes and hence it is not constructive to consider one theory as universally superior to another (Cheng et al., 2015; Darnall et al., 2009; Edgley et al., 2015; Edgley et al., 2010; Farooq & de Villiers, 2020). The researcher was motivated to use actor-network theory to understand the SERA materiality assessment and stakeholder inclusiveness in the SERA process using a different perspective. This study does not debate that ANT would have been a better theory to have been utilised in prior studies. However, it embraces theoretical plurality, with the intention of adding ANT to prior studies and making a useful contribution. The theoretical framework supported this study, an advancement of prior research conducted by Edgley et al (2015) where the need for wider stakeholder views on understanding SERA materiality was a major limitation. Edgley et al (2015) conducted the research using semi-structured interviews with only ASAPs and NASAPs. Using specific notions of this social theory: translation process, non-human actants, boundary objects, singular collective, and the trail of associations guided the researcher to unpack critical issues in SERA practice - qualifications of assurers, secondary material impacts, internal assurance, management report, assurers engagement with key external and internal stakeholders. These notions are discussed in this chapter in sub-section 3.4 below. In unpacking these critical issues, the researcher was able to use the findings to answer the two main research questions:

- *How can organizations (management), assurers, and standard setters have stakeholder-inclusive processes and mechanisms in place to foster the true and fair view of SER and SERA?*

- *How will materiality, completeness, and responsiveness to stakeholders in SERA enhance the credibility of sustainability reporting?*

The argument for using actor-network theory is that it is a credible social theory for interpretive empirical research. The essence of considering this theory credible is the 'social' is not a given, but a heterogeneous association, comprising of non-humans: mundane objects, the role of materiality, exotic technologies, and nature, which are as much a part of society as humans are (Latour, 2005, p.10; Michael, 2017,p.4). In ANT, the focus is on actors or actants, mediators, or intermediaries

who may not be human. This has done away with the traditional standard social classifications like class or gender or ethnicity. These social associations of humans and non-humans are 'flat' and not structured into micro, meso, and macro layers. This means the associations are of a single layer, though the layer itself can be distorted in many ways (Justesen & Mouritsen, 2011; Latour, 2005; Michael, 2017). The researcher is guided to understand that in ANT, anything can be an actant, and overall, there is a singular collective. This again is focusing on how the scale or hierarchy is not based on any assumptions, but rather all the connections need to be fully traced (Barter & Bebbington, 2013). ANT's insistence on the importance of non-humans is emphasized further where the social is seen as an outcome of heterogeneous processes. Even in the assembling of a specific network, no assumptions can be made a priori to conclude whether it is human or non-human actors that have taken the major decisive role. Only with close empirical research that it becomes possible to identify the specific prominent actors and even then, it is often difficult to identify with clarity whether those actors are social or not (Michael, 2017).

Further credibility to using ANT is that actors are part of a network and do not act on their own. Actants are interdependent or intermeshed, creating a translation and the network gets into motion where an actant is only an effect of an array of relations in that network. Action is collective and allocated and an actor is always a network (Barter & Bebbington, 2013; Latour, 2005). This is further elaborated by Latour (2005) who states that "*attachments are first, actors second*" (Latour, 2005, p.217). ANT emphasizes that power is not given to any human actor to create an obligation for other actants to enrol themselves, rather recommends persuasive tools which can be used in non-human form to convince other actors to support the network and obtain the objectives of the singular collective (Michael, 2017). ANT brings out the unique characteristic of human societies, where the co-presence of non-humans is vital. Latour (1991) asserts this uniqueness as '*we are never faced with objects or social relations; we are faced with chains which are associations of humans (H) and non-humans (NH)*' (Latour, 1991, p.110). However, there is no essentializing of either humans or non-humans in the association, instead, both are relational and function as networks. They cannot function on their own but emerge as the effects of networks. Law (1994) also elaborates on the network notion with an example where if a manager is stripped of his technologies, whether the important ones like mobile phone, computer, printer, or data projector or even the less important ones like the desk, lamp or chair, he will not be a manager, but someone else (Michael, 2017).

Another strong point of this theory is the need for the researcher to conduct a full analysis of the relationships between actants which will result in '*denaturalization*' of the status quo, especially

since there will be some amount of reflexivity, and this is taken into consideration by ANT. To minimize this reflexivity risk or to keep it low, ANT recommends the researcher needs to make no assumptions whatsoever, but resort to engaging with all actants closely and ask simple, obvious, and even stupid questions if needed to trace the associations and connections (Barter & Bebbington, 2013; Justesen & Mouritsen, 2011). Researchers using ANT can trace how the actants are positioned in the network and how together as a single collective can obtain the objectives of the research topic. Even in the adoption of an innovation, this theory gives no credit to a single 'hero' individual but is possible only with a wider network of actants together making the adoption possible. ANT further lays out that for actors in the network to assemble and reassemble successfully, there should be no qualitative differences between human agents and social structures. Any differences in the associations should only be quantitative in terms of the lengths of associations amongst a greater or lesser number of actors. This is because society is considered a flat network of associations (Michael, 2017).

One more strong characteristic of ANT is the researcher cannot make assumptions about the power any actor in the network holds. It is important for the researcher to trace and analyze how the power is collected, how other actants in the network are being led with that power, what is the level of engagement with the other human and non-human actants, and the pattern of the associations. This will involve the researcher engaging with the entire network of associations to obtain the objectives of the study (Michael, 2017). Using this theory, the focus is less on the tracing of any actor by assuming that the actor possesses more power, but rather on tracing all relations and how the relations are remade or reordered and reconfigured as a network of human and non-human actants. Hence the agency is a relational effect and an actant can be defined as a relational field that is an outcome of an array of relations (Barter & Bebbington, 2013). If the researcher is not able to explain the structure of the relationships or patterns of relationships, this indicates the tracing and the analysis is not complete and the researcher has missed some aspect (Latour, 2005).

Taking the above cues into account, the notions of ANT are used in this study to analyze the intermeshing of humans (ASAPs, NASAPs, regulators, govt., NGOs, suppliers, customers, management of reporting companies, employees, and other key stakeholders) and non-human actants (SERA statements, SERA standards, GRI guidelines, management report, internal assurance report, technology) to understand SERA practice with a focus on how materiality, completeness, and responsiveness in SERA is adopted by ASAPs and NASAPs. Likewise, the analysis is used to understand SERA practice with a focus on how stakeholder engagement is

adopted by ASAPs and NASAPs to make materiality decisions and issue SERA statements that meet their needs.

Though the researcher is considering the research questions from the perspective of ASAPs and NASAPs, ANT guides the researcher to make no assumptions of considering the assurors as the major decision makers. Rather it guides the researcher to engage with the entire association of actants, how to ask the questions when engaging, and the need to listen to their interpretations with making no assumptions of any actant being more powerful. The main principles of this theory discussed above have guided the researcher to interpret the voices of human and non-human actants as a singular collective. The researcher traces the connections to understand how the network is assembled or may need disordering and reordering to obtain the objectives of the thesis. The researcher jumps into the center of the issues of SERA as stated in the research questions and engages closely with all actors, understand their interpretations, make observations, review the documents, and the role of technology. The researcher discusses the non-human actants with the human actors to trace the relationships and then conducts an analysis of the empirical evidence keeping in mind the human limitation of reflexivity which is considered by this theory.

Using the constructionist approach of ANT, the researcher follows or traces all the non-human actants like SERA standards, SER guidelines, technology, management report, internal assurance report, and any indirect impacts from sustainability performances that could be on non-humans. These non-human actants are subsequently generalized or integrated with the interpretations from engaging with assurors and other stakeholders. This results in the researcher tracing the assembling and reassembling of the associations if any by conducting a full analysis before making any interpretations. The researcher is led by the ANT lens to focus on the relations between actants rather than on identifying the power of the actants, as the agency is about the heterogeneous relations and not being objective or subjective (Latour, 2005).

Legitimacy theory, stakeholder theory, institutional theory, and audit theory are some of the other social theories that have been used to explain SERA practice through the contributions of earlier researchers. Researchers in prior literature have used these theories to make contributions to sustainability and environmental reporting assurance practice. Prior research used legitimacy theory to investigate the association between sustainability governance characteristics and the assurance of corporate sustainability reports (Peters & Romi, 2015); to understand the legitimacy of new assurance forms: the case of assurance of sustainability reports (O'Dwyer et al., 2011); to

study the determinants of the adoption of sustainability assurance statements: an international investigation (Kolk & Perego, 2010). Similarly, prior research used stakeholder theory to perform a study on the assurance of sustainability reporting – an auditor’s view (Wallage, 2000); to conduct a study on corporate social disclosures: a user perspective on assurance (Wong & Millington, 2014); to understand perceived stakeholder influences and organizations’ use of environmental audits (Darnall et al., 2009).

Legitimacy theory focuses on society or societal norms rather than the individual actants (human and non-human) which function as a collective. The auditees (assurance clients), the external world which are the non-client users or readers of assurance statements and the internal world which is the assurance firm itself were the central focus of prior literature using legitimacy theory to develop new assurance practices along with strategies to legitimize these assurance practices (O’Dwyer et al., 2011). ANT brings out the importance of every actant whether person, object, or organization in a social network. In ANT, the term ‘social’ includes the heterogenous elements because of the non-human actors becoming an equally important part of society as humans. Social also has no micro, meso and macro layers in its structure, but rather is a ‘flat’ layer of association of human and non-human actants, though can be altered in many ways (Latour, 2005; Michael, 2017). Non-human actants are also considered as agents, which is one of the significant principles of this theory (Barter & Bebbington, 2013; Latour, 2005). This does not imply that human and non-human actants in the network are fundamentally the same. ANT states that both types of actants have responsibilities, and the effects of their roles must be equally accounted for. When the actor network is operating efficiently, this will create societal order. However, if certain actants are removed or not included, there will be a breakdown in the social order (Barter & Bebbington, 2013; L. Justesen & J. Mouritsen, 2011; Latour, 2005; Michael, 2017; Wæraas & Nielsen, 2016). Materiality and stakeholder inclusiveness being the central focus of this study, ANT has guided the researcher to consider the non-human actants together with the human actants and trace the relationships in the associations. Materiality itself is a non-human actant besides being a significant concept in auditing and assurance. Information systems, assurance standards, and SERA statements are the other non-human actants considered as part of the collective to answer the research questions. These notions of ANT motivated the researcher to unpack significant findings as discussed in Chapter 7.

Stakeholder theory considers the influence of specific groups of society in the existence of organisations, their performances, and their successes (Mitchell et al., 1997; Roberts, 1992). The theory is a refinement of the Legitimacy theory where organisations focus on meeting the

expectations of stakeholders rather than the society at large (Deegan & Unerman, 2011). With profit maximisation no longer considered the only objective of a company, it is crucial for companies to develop and maintain a relationship with stakeholders as their performances have an impact on stakeholders which is different for each stakeholder group (Chen & Roberts, 2010). There are various perspectives to using stakeholder theory which is the downside to the framework. Hasnas (1998) brings out this issue where the theory is used as 'an empirical theory of management and a normative theory of business ethics without attempting to distinguish between the two'. Stakeholder classifications in the stakeholder theory literature are on varied basis: primary or secondary groups (Clarkson, 1995; de Bakker & den Hond, 2008), the ethical (normative) or managerial perspectives (Deegan & Unerman, 2011; Roberts, 1992) and the power, legitimacy, and urgency features (Mitchell et al., 1997).

Primary stakeholders are those who engage with the company directly and are needed for the company's survival. Secondary stakeholders are those who are impacted by the company's activities but do not engage with the company directly and are not needed for survival (Clarkson, 1995). According to Deegan (2009), the management of companies considers only the primary stakeholders when making decisions, and the secondary stakeholders' concerns are not attended to. All stakeholders have the right to receive information on companies' actions that impact them directly or indirectly even if they choose not to use the information or do not affect the survival of companies (Gray et. al, 1996; O'Dwyer & Owen, 2005).

The ethical perspective asserts that stakeholder power is not relevant and hence all stakeholders have to be treated fairly. Companies should be accountable for their actions to all stakeholders which should be responsibility-driven and not demand-driven (Deegan & Unerman, 2011). The managerial perspective argues that companies should only focus on stakeholders that affect the survival of the company by providing resources. Therefore, Gray et. al (1996) exclaims this perspective to be 'organisation-centred'.

Another perspective of the stakeholder theory is the one based on power, legitimacy, and urgency qualities. Stakeholder power is based on exerting influence and enforcing behaviour to achieve desired outcomes. Legitimacy is ensuring companies' activities are appropriate, desirable, and acceptable. Urgency refers to stakeholder expectations needing immediate action from a company (Deegan & Unerman, 2011; Mitchell et al., 1997). These qualities are used by companies to identify which stakeholders need more attention in priority and hence the levels vary. Stakeholders with all

three qualities are called definitive stakeholders and hence given the attention in priority as compared with those with two qualities and the least attention to stakeholders with one quality (Mitchell et al., 1997). These qualities could change for stakeholders and hence companies need to be cautious of how they prioritise. Balancing the expectations of stakeholders is crucial for companies (Deegan & Unerman, 2011).

ANT is different from stakeholder theory. The metaphor of a 'flatland' (Latour 2005, p.220) is a way to distinguish the way stakeholders are considered. There is no scale to decide in advance and in priority how actors form the network. The notion of translation involves no jumping in a flat world, but rather forming connections though there are displacements (Latour, 2005). This theory works well to answer the primary research questions of this study: materiality decisions in SERA and stakeholder inclusiveness in the SERA process. The connections in the translation process take the form of human and non-human actors as a collective and hence can locate what is very important from its inception (Latour, 2005). This study has used the notion of translation to understand how the accounting and non-accounting assurors as translators engage with other actors (human and non-human), to convince the other actors that they only represent them in performing SERA and in making materiality assessment decisions.

This study has used the ANT lens to understand specific dynamics of SERA practice. It does not contradict the other theories used, rather it embraces theoretical plurality, with an understanding that Actor Network Theory would be an addition and make further useful contributions with the constructs used to make an in-depth study and collect rich data.

3.4 The Development Of ACTOR-NETWORK THEORY And Its Key Notions

Actor-Network Theory emphasizes the importance of network ontology in studying any phenomenon. Latour (2005) refers to ANT as "*the sociology of association*" to bring out the importance of 'actor' and 'network' and confirms how this theory is utilized to understand how things work in specific settings. This theory, as Latour (2005) suggests, brings out the critical role of non-human elements in the network and how they assist in tracing social connections. ANT's claim is: "*We should simply not believe the question of the connections among heterogeneous actors to be closed, that what is usually meant by 'social' has probably to do with the reassembling of new types of actors. ANT states that if we wish to be a bit more realistic about social ties than 'reasonable' sociologists, then we must accept that the continuity of any course of action will rarely consist of*

human-to-human connections (for which the basic social skills would be enough anyway) or of object-to-object connections but will probably zigzag from one to the other” (Latour, 2005, p. 75). Hence, ANT brings out that sociology needs the support of a range of tools and not only other sociologists. They must consider non-human actors and consider these elements commensurable with social ties while recognizing their fundamental incommensurability (Latour, 2005). Law (1992) also gives an example of these principles, explaining what a sociologist is. He suggests: *“If you took away my computer, my colleagues, my office, my books, my desk, my telephone, I wouldn’t be a sociologist writing papers. ...I’d be something quite other”* (Law, 1992, p. 4). This quote explains that action is effective when it is performed as a *collective*, actant roles can be performed only as a network and human and non-human actants come together in every network (Justesen & Mouritsen, 2011). Thus, *‘social agents are never located in bodies and bodies alone, but rather an actor is a patterned network of heterogeneous relations’* (Law, 1992, p.4) of human and non-human actants and is social/natural in form (Barter & Bebbington, 2013; Callon, 1984). The connection with other actants implies that *“attachments are first, actors second”* (Latour, 2005a, p.217; Michael, 2017). Latour brings out this central premise of ANT; *“It is in this complete reversibility – an actor is nothing but a network, expect that a network is nothing but the actor – that resides the main originality of this theory”* (Latour, 2011, p.100; Michael 2017).

The notions of ANT used in this study to answer the two primary research questions are shown in table 3.1. and discussed in the sub-sections below:

- *How can organisations (management), assurers, and standard setters have stakeholder-inclusive processes and mechanisms in place to foster the true and fair view of SER and SERA?*

- *How will materiality, completeness, and responsiveness to stakeholders in SERA enhance the credibility of sustainability reporting?*

Table 3. 1: Operationalisation of key notions used from ANT

Overview of key notions from ANT used in this study and their operationalization to understand stakeholder inclusiveness (RQ1) and materiality (RQ2) in SERA practice

ANT key notions	Brief understanding	Definition in this thesis	Operationalisation to answer RQ1	Operationalisation to answer RQ2
Sociology of associations or Actor Network	The importance of actors (human and non-human) and networks to form a singular collective where the action is distributed. The actor gets identity and 'actorhood' through relationships with other actors (human and non-human)	The human and non-human actants are intermeshed to form associations/networks to perform SERA process. (Society – nature dual agency relationships)	<p>The researcher explores the following:</p> <p>Who are the human actors, and which are the non-human actants involved in SERA and who are chosen as main translators and who are the other main actants</p> <p>How ASAPs and NASAPs (main translators) engage closely with other key internal and external stakeholders</p> <p>How ASAPs and NASAPs use non-human actants (as other main actors) in SERA performance</p> <p>How ASAPs and NASAPs in this study as translators wield influence over other human and non-human actants to represent them</p> <p>How the human and non-human actants are given identities in the network</p> <p>Which non-human actants can be used to trace the relationships and connections in the network or to trace the need for disordering or reordering the network</p>	<p>The researcher explores the following:</p> <p>Who are the human and non-human actants involved in SERA and who are chosen as translators and who are the other main actants</p> <p>How ASAPs and NASAPs (main translators) engage closely with other key internal and external stakeholders</p> <p>How ASAPs and NASAPs use non-human actants (as other main actors) in SERA Materiality assessment</p> <p>How ASAPs and NASAPs in this study as translators wield influence over other human and non-human actants to represent them</p> <p>How the human and non-human actants are given identities in the network</p> <p>Which non-human actants can be used to trace the relationships and connections in the network or to trace the need for disordering or reordering the network</p>
Actor or Actant	anything that does modify a state of affairs by making a difference	Human or non-human actants that affect the credibility of SERA statements	<p>The researcher explores:</p> <p>How the identities are created in the network</p>	<p>The researcher explores:</p> <p>How the identities are created in the network</p>

			or association	or association
			Are less obvious actants in the supply chain also considered as part of SERA process	Are less obvious actants in the supply chain also considered for materiality decision making
			Are less obvious actants like technology also considered	Are less obvious actants like technology also considered
			How is it ensured that all actants are taken into consideration	How it is ensured that all actants are taken into consideration
Non-Human actors or actants	Social actors that are non-human like technologies, animals, texts whose role in the network are equal to the human actors. They are mediators which change the relations with what they associate.	The SERA standards, SERA report, technology, GRI guidelines, management report, internal assurance report, animals, environment that trace the relationships in the network and often alter the relationships which is reassembling the social in SERA practice	The researcher explores: How these non-human actants can influence the SERA process and the decisions to be made by ASAPs and NASAPs in the stages of SERA process	The researcher explores: How these non-human actants can influence the SERA process and the decisions to be made by ASAPs and NASAPs in the stages of SERA process?
Translation Process	A process where human and non-human actants collaborate and neither has more power on their own. Negotiations, persuasions are made by the main translators to bring about transformation. There are four stages in the translation process.	A process where ASAPs, NASAPs as the main translators make negotiations with other main actants (human and non-human) and persuade them to accept the main translator and their own identities to bring about credibility to SERA practice. The four stages are: Problematization, Interestment, Enrolment and Mobilisation	The researcher follows the four stages of translation process to explore and interpret the extent of stakeholder inclusiveness in SERA process. These stages are explained later.	The researcher follows the four stages of translation process to explore and interpret the extent of stakeholder inclusiveness in materiality assessment and in the completeness and credibility of the SERA statements. These stages are explained later.
Main translators	Actors who acquire the rights and power to represent other main actants in the network	ASAPs and NASAPs are considered as main translators in SERA and hence they are given the rights to represent other main actants and issue the SERA statements at the end of the assurance process	The researcher uses the four stages of translation to explore the role of ASAPs and NASAPs as main translators by engaging closely with them and other main actants in the network to bring out the issues of	The researcher uses the four stages of translation to explore the role of ASAPs and NASAPs as main translators by engaging closely with them and other main actants in the network to bring out the major issues in

			stakeholder inclusiveness.	materiality assessment in SERA practice.
Other main Actants	Human and non-human actants who must be persuaded to get enrolled and accept the translator to represent them.	Other human and non-human actants besides ASAPs and NASAPs that have an influence on SER and SERA and hence are part of the network	The researcher uses the four stages of translation to explore the role of the other main actants and trace the connections in the network. The researcher explores the possibilities of the network being disordered and then reordered. The researcher confirms this by engaging closely with the other main actants in the network to bring out the issues of stakeholder inclusiveness in SERA process.	The researcher uses the four stages of translation to explore the role of the other main actants and trace the connections in the network. The researcher explores the possibilities of the network being disordered and then reordered. The researcher confirms this by engaging closely with the other main actants in the network to bring out the issues of materiality assessment in SERA process.
Boundary Objects	These are abstract and not in physical form, can gain value only with social engagements in a common setting. They mean differently to different social actors in a wider setting and yet can gain common enough meanings to all the actors in a common setting	'Sustainability' and 'Assurance' are boundary objects in SERA practice which complement the translation process to ensure there is common consensus on these interpretations to enhance the credibility of SERA process as there can be material variations in the perceptions made by different actants in the network of these boundary objects	The researcher explores: How 'Sustainability' and 'Assurance' are considered by ASAPs and NASAPs when representing other actants to bring about stability in SERA process How the assurors make negotiations with stakeholders and non-human actants to bring about the common consensus needed and identify the issues caused with lack of consensus	The researcher explores: How 'Sustainability' and 'Assurance' are considered by ASAPs and NASAPs when representing other actants to determine SERA materiality and bring about stability in SERA process How the assurors make negotiations with stakeholders and non-human actants to bring about the common consensus needed and identify the issues caused with lack of consensus

3.4.1 Sociology of Associations or Actor-Network

This key notion of ANT lays out how actors, both human and non-human are part of the collective and cannot be considered in isolation. Hence an actor is considered a network and a network is considered an actor (Latour, 2005). This implies that agency and structure are relational effects. These relations need to be traced to understand how the associations are created, modified, and reassembled to obtain a translation. If the structure of associations and their reassembling cannot be fully explained through these relationships or pattern of relationships, it indicates the researcher

is not complete with the tracing and hence missed some aspect of the translation process (Barter & Bebbington, 2013; Latour, 2005). The translation process is explained in detail below. Latour (2005) even uses the term '*flat land*' to highlight how scale or hierarchy in the network of any form cannot be assumed, rather the connections need to be fully traced. It is through these translations which are the outcome of the tracing of the associations or connections that enable a researcher to obtain the objectives of a research study. To highlight further ANT's ontology of duality of agency-structure relationship is the tracing of all connections including modifications made and the re-ordering of this singular collective which confirms that nothing can be separated from the network that created it in the first place (Barter & Bebbington, 2013). In this study, the researcher engages with actants in the SERA network and is in the middle of the action to trace the connections made by ASAPs, NASAPs, and other actants. This study even though considers ASAPs and NASAPs as the focus point, the researcher makes no assumptions of the assurors have more power in making the SERA process more credible. Rather, the researcher traces the relationships in the associations completely to understand the research questions of how stakeholder inclusiveness and how materiality assessment in SERA is considered. The researcher traces how the role of non-human actants completes the connections or the reordering of the connections. ASAPs and NASAPs and other actants act upon each other to perform SERA and hence any actant is only the effect of an array of relations (Barter & Bebbington, 2013). In this study, ASAPs and NASAPs represent other actants in the network as main translators, however, they need other actants as a collective to perform SERA and issue a credible SERA statement. The assurors nor the SERA statements or assurance standards or any other human and non-human actant can be considered in isolation to understand SERA practice, to answer the research questions, and to identify the major issues in the SERA process. It is the complete analysis of the connections and associations created or reassembled in the SERA network that led the researcher to identify major issues in materiality assessment, and stakeholder inclusiveness and unwraps other major issues in SERA which are discussed in the empirical and discussion chapters 5, 6 and 7. It is only with the complete tracing of the connections which are intermeshed that the researcher can understand how ASAPs and NASAPs represent other actants to perform SERA practice. This means the researcher has taken into account the re-ordering of connections in the associations if needed and the actants are '*black boxed*' or there is stability in the associations created (Law, 1992). It is difficult to black box the actants as there are constant changes in the associations with SERA still evolving and the SERA standards are not generalised.

3.4.2 Actor or Actant

The term 'actor' is another key construct in actor-network theory and is defined differently from the common understanding where actors have more subjective and intentional meanings. Latour defines an actor as: '*anything that does modify a state of affairs by making a difference*' (Latour, 2005a, p.71). This broad definition includes non-human actors like technologies, animals, texts, etc. and they have an important role in the network like that of human actors (Latour, 2005). Actors get their identity by what they do and not what they are (Latour, 2005). Hence, agencies created must be observable because "*an invisible agency that makes no difference, produces no transformation, leaves no traces and enters no accounts is not an agency*" (Latour, 2005, p.53). These actors become mediators and change the relations with what they associate.

ANT brings out the importance of every actant whether person, object, or organization in a social network. In ANT, the term 'social' includes the heterogeneous elements because the non-human actors become an equally important part of society as humans. The social also has no micro, meso, and macro layers in its structure, but rather is a '*flat*' layer of association of human and non-human actants, though can be altered in many ways (Latour, 2005; Michael, 2017). Non-human actants are also considered agents, which is one of the significant principles of this theory (Barter & Bebbington, 2013; Latour, 2005). This does not imply that human and non-human actants in the network are fundamentally the same. ANT states that both types of actants have responsibilities, and the effects of their roles must be equally accounted for. When the actor-network is operating efficiently, this will create societal order. However, if certain actants are removed or not included, there will be a breakdown in the social order (Barter & Bebbington, 2013; Latour, 2005; Michael, 2017; Wæraas & Nielsen, 2016). The term 'actant' is used in place of 'actor' to minimize the use of any anthropocentrism and anthropomorphism that may be associated with the term actor (Barter & Bebbington, 2013; Latour, 2005). Anthropocentrism considers human beings as the most important entities in the world and anthropomorphism is considering the non-human elements in terms of human characteristics and hence not given their due importance in the network. Hence 'actant' is used to give a more neutral effect than the term 'actor' and to bring out the significance of non-human elements that have a critical role in the agency relationship along with human actors (Barter & Bebbington, 2013; Latour, 2005).

Using the ANT lens, the SERA practice involves a network of heterogeneous actants which are the assurors (accounting and non-accounting), management of reporting companies, other key

stakeholders (investors, employees, suppliers, customers, NGOs, community, regulators, academics) and the non-human actants (SERA Standards, SERA statements, SER reports, reporting guidelines, management report, internal assurance report, technology). SERA is at its nascent stage globally. As the accounting profession has not monopolized this assurance service, it involves both accounting professionals and non-accounting experts and consultants providing assurance services. With no generally accepted assurance standards, each type of assurator uses different standards, approaches, and methods to meet the needs of their clients and other key stakeholders. This study is conducted with a focus on ASAPs and NASAPs to answer the research questions of materiality decision-making in SERA and stakeholder inclusiveness in the SERA process. Hence, the assurers are considered '*Translators*'. These translators must make connections and develop relations with the actants (reporting companies, stakeholders, and non-human actants) to align the varying interests of the actants and their interests and this process is called translation (Briers & Chua, 2001; Channuntapipat et al., 2019; O'Dwyer & Owen, 2005; Star & Griesemer, 1989). The researcher using ANT traces the sociology of association by engaging with a wide array of human and non-human actants to understand the negotiations made to assess materiality, to understand stakeholder inclusiveness in the SERA process, and the validity of SERA statements. In this process of tracing the connections and understanding the negotiations between actants, the researcher needs to be attentive to the possibility of disordering and re-ordering of the associations to ensure complete tracing is obtained to answer the research questions.

3.4.3 Translation Process

The translation process is an important concept in ANT, where the human and non-human actants collaborate and neither has more power on their own. This is because the theory does not support the objectivism or subjectivism ontology, but rather a dual (objective-subjective) relational ontology, and nothing can separate this assemblage (Barter & Bebbington, 2013). The translation process guides this study and has supported the researcher to frame the research design for the collection and analysis of empirical data to obtain the objectives of this study. The translation is originally explained by Latour (1987) and Callon (1986) where negotiations, persuasions, and calculations are performed by the main actor called 'translator' to enroll the other main actors in the network and obtain the objectives of the translator which are based on the needs of the collective.

The translator in the network is the focus of the research study. Though the translator is the focus, there is no supremacy in terms of holding power compared to other main actors in the network

including the non-human actors' (Barter & Bebbington, 2013; Callon, 1986; Latour, 2005). Hence, all the actors in the network are called '*main actors*' or '*main actants*'. To perform the translation, the interests of the actants must be aligned with the translators' interests. For this, the translations must be '*well-defined*' and '*powerful*' so that they are willingly accepted. This implies that the translator needs to put more and more associations in '*black boxes*' successfully. A black box means the relations and links do not need reconsideration, and the networks are adequate (Michael, 2017). Identity construction is part of the translation process where the translator negotiates with the other actors to the extent, they accept the role of the translator and their roles in the network. The actors, including the translator, get their identities based on the associations created in the network (Channuntapipat et al., 2019; Justesen & Mouritsen, 2011). The translator needs to disengage the actants from other networks to translate and enroll them successfully (Justesen & Mouritsen, 2011; Michael, 2017; Troshani et al., 2019).

In this study, the main translators are the ASAPs and NASAPs as the study is related to SERA practice and the researcher is considering the issues of materiality and stakeholder inclusiveness from an assurator's perspective. The relationship or association of assurers with the management of reporting companies, investors, NGOs, suppliers, customers, assurance standards, technology, SERA statements, reporting guidelines, and other relevant actants will determine the identities of both assurers and other actants. The more powerful the associations in the network, these will result in more enrolments into the network. For example, the enrolment of NGOs into the network of SERA practice will result in enrolling other new actants into the network. The NGOs perceive that SERA statements are more credible only when the indirect stakeholders are considered. In that case, the assurers will need to engage other companies (supply chain stakeholders) or actants to ensure the reports are credible. This explains how the enrolment of one actant can lead to further enrolments of other actants (Channuntapipat et al., 2019). There is also a possibility of some of the actants threatening network stability by resisting translation and causing dissonance in the network. This is because these actants feel the translators are not linking their interests in the way they expect, which can negatively impact the transformation, and the translator's ability of persuasion is challenged (Troshani et al., 2019). Latour's model of translation also confirms this. He focuses on how power is achieved, accepted, and allocated in the translation process. His model states that the translator can achieve power only when the other actants accept it. He also suggests that translation can take a very different turn with the other actants refusing to accept the translator as they feel their goals are not aligned with that of the translator. Hence, Latour's translation model makes no assumption of its result but considers it a continuous transformation, thus creating

distinctive translations based on specific situations (Barter & Bebbington, 2013; Wæraas & Nielsen, 2016).

In this study, with SERA practice being in the evolving stage, the researcher when engaging closely with assurors (translators) and other actants has considered their interpretations of the need for SERA to trace how negotiations are made between actants and how the other main actants consider the role of assurors. This notion of the translation process has guided the researcher to trace how the assurors' role is accepted by other actants and bring out the major issues in this process. This study gives a new perspective to understanding materiality, stakeholder inclusiveness, and other major issues in SERA practice, some of them not being considered in prior research which is unpacked in chapters 5 and 6. This study using the ANT perspective and the researcher by getting into the middle of the SERA process explores the issues involved in materiality assessment, stakeholder inclusiveness, and other major issues in SERA practice. The translation process used in this study to develop the research design is based on Callon (1986), 'four moments' of the translation process (Callon, 1986; Channuntapipat et al., 2019; Wæraas & Nielsen, 2016):

1. Problematization: where the translators make the problem known to other actants in the network and persuade them to accept that the translators have the correct solutions.
2. Interessement: where the interest of all actants in the network is linked and strengthened.
3. Enrolment: where the actants agree to participate, accept the translators as problem solvers, and accept their prioritization in specific problematization.
4. Mobilization: ensuring that the network is maintained and the actants act according to its interests.

Each of these stages is discussed further in detail to give a more comprehensive understanding of the notion of the translation process and how it is used in this study to unpack materiality decision-making in SERA and Stakeholder inclusiveness in the SERA process.

3.4.3.1 Translation Stages 1 and 2 – Problematisation and Interessement

Using the ANT lens, the notion of translation guides the researcher to comprehend how the varying interests of the actors in the SERA process are aligned to bring about stability in the purpose of the assurance statement and to meet the needs of key internal and external stakeholders. The translation process creates a social reality, with the main actor as the translator acquiring the rights to represent other actors (Channuntapipat et al., 2019; Justesen & Mouritsen, 2011; Michael, 2017; Wæraas & Nielsen, 2016). For this study, the assurors as translators (main actors) take up the negotiations, persuasion responsibilities, and the authority to act on behalf of the other actants. The actors (stakeholders) in the SERA network can have disagreements, especially where their needs are not met, and some of the actors hence can resist the translation initiated by assurors. Unless the assurors can translate most of the key stakeholders, the changes to be brought about with assuring the sustainability reports will be interrupted, and the assurors will not be able to provide the credibility expected from getting the sustainability reports assured (Channuntapipat et al., 2019; Michael, 2017; Troshani et al., 2019; Wæraas & Nielsen, 2016).

Problematisation is the first stage in the translation process. The translators, at this stage, present the problems to the other main actants in the network by creating an obligatory passage point (OPP) (Callon, 1986; Troshani et al., 2019). The obligatory passage point indicates *'the conditions that define negotiation spaces and mediate interaction among actors to facilitate the inclusive formation of a reference'* (Troshani, 2019, p.9). The translators create the OPP to make themselves indispensable and to convince the other actants that their problems can be solved only by passing through this OPP (Callon, 1986; Troshani et al., 2019). The translators convince the other actors that they need to be the focal actors and that the roles they define for the other actors are to be collectively pursued and not challenged. This makes the translators decide on the negotiations and mediation between actors in the problem-solving network.

Problematisation also brings out the need for flexibility, making detours, and staying connected all throughout (Latour, 2005; O'Dwyer & Owen, 2005; Troshani et al., 2019). In this study, problematization takes place with the assurors persuading and making the other actors understand and accept what the SERA process involves, making negotiations to provide awareness of the material issues if the SER reports are not assured. It also involves convincing other main actors how the assurors can provide the solutions and the need for all actants (human and non-human) to be part of the network together. For example, the assurors need to decide with the clients on the

scope of assurance, materiality criteria, data collection, site visit range, engagement with key internal and external stakeholders, type or level of assurance, and the assurance standards to be used.

Interessement also called identity construction, is the second stage in the translation process but a part of problematization. At this stage, the translators decide on a collection of actions needed which should be convincing enough to the other actants to accept their roles in the network. The translators need to be aware of any other networks the actors are part of that could prevent them from having a valid OPP (Callon, 1986; Troshani et al., 2019). This implies that for translators to have a successful interessement, they must use an appropriate combination of action plans and tactics that will impede other alliances or networks. Enrolment which is the next stage is crucial for interessement to go through (Callon, 1986; Troshani et al., 2019). In this study, the assurers as translators, must engage with the key internal and external stakeholders (management of companies, employees, NGOs, Government, regulatory bodies, suppliers, customers, and assurance standard setters) and convince them to accept the roles of the assurers and their roles as actants in the network to perform SERA process. Identity construction also emphasizes how the assurers, as translators need to ensure non-human actants are part of the network and that human and non-human actors neither have more authority. In fact, non-human actants (sustainability reports, assurance statements, SER and SERA standards, technology) are generated in the translation process, and in such translations, new goals are generated (Barter & Bebbington, 2013). These new goals, for example, the need to have generally accepted assurance standards to enable the assurers and the management of reporting companies to benchmark the assurance statements with other assurers, the need for uniformity in the assurance statements issued by accounting and non-accounting assurers, stakeholder inclusiveness in materiality decisions. ANT brings out clearly that an actant can be anything and overall is considered a singular collective and the priorities between actants cannot be assumed, but the engagements and connections must be fully traced (Barter & Bebbington, 2013). Every actant can gain value only when considered together as a network. The SER and SERA statements have enhanced credibility when the assurers engage with the stakeholders to decide on the scope of SERA, materiality decisions, and type of assurance statements. The SERA standards, technology, GRI guidelines, and management report as non-human actants also need to be considered to enhance the credibility of SER and SERA statements. Even the less obvious actants like the secondary impacts at the supply chain level also come into consideration as part of the collective to enhance this credibility.

3.4.3.2 Translation Stages 3 and 4 – Enrolment and Mobilisation

Enrolment is crucial for intersement (the earlier stage above) to be accomplished and involves “a group of multilateral negotiations, trials of strength and tricks that accompany the intersements and enable them to succeed” (Callon, 1986, p.211). The enrolment process creates interrelated roles, and the translator allocates them to actors who are willing to accept them rather than just imply or exclude pre-established roles. This allocation of roles occurs after multilateral negotiations with most actors, where their identities are determined. In the enrolment process, some passive actors may accept consent without any discussions or resistance as these actors accept the specialist's opinions as important. For enrolment to be successful, it is critical for translators to make negotiations with actors who could be a threat to the network's existence (Callon, 1984; Rivera & Cox, 2016; Wæraas & Nielsen, 2016). In this study, enrolment of actors is where the assurers will engage with the management of companies preparing SER and getting their reports assured. It does not stop here; the assurers, at the same time must inform management of the need for them to engage with key internal and external stakeholders and make them aware their engagement in SERA is needed to create reliability and validity of the assurance statements issued at the end of the assurance process. In this process, it is important for the assurers to translate the human and non-human actants by ensuring every actant is accepting their role, especially if they resist becoming part of the network in the translation process. For example, besides managing the companies preparing SER, the assurers need to engage with customers, suppliers, and standard setters, NGOs and make them aware of their roles in SERA. The assurer as translator needs to consider the criteria in the SERA standards and GRI reporting standards and if any changes need to be made. Other non-human actants like management reports and internal assurance reports should also be taken into account. Technology is another significant non-human actant to be considered by the assurer in the SERA process and to negotiate with the management of reporting companies on the need to discuss the role of technology and verification of the system in the early stages of the SERA process like in financial reporting auditing.

Mobilisation is the fourth stage in the translation process. This stage is where the translators get the support of the actants in the network whom they represent, and this stage also involves modification of the actions of other actors who are not yet part of the network. The translators need the backing of actors, especially the passive ones, to convince other actors, and this can increase the network size to then engage in working together on solutions to the issues (Channuntapipat et al., 2019; Rivera & Cox, 2016; Star & Griesemer, 1989). There is a possibility of the actants

challenging the translators in this process or even resisting rendering support; hence, new translations start to take place. In this study, the assurator needs the support of management and employees to engage with stakeholders like customers, suppliers, NGOs, regulators, government, and investors. This will increase the network's size to conduct the assurance, where inclusivity and engagement will contribute to ensuring the SER reports disclose the social and environmental impacts and not just social and environmental activities.

The above four stages in the translation process can overlap and are not necessarily to be executed in a sequence. In fact, translation can be considered as a process of '*creating convergences and homologies by relating things that were previously different*' (Callon 1980, p. 211). Latour brings out a different view of translation which, according to him, is a '*continuous transformation*' process creating unique translations (Wæraas & Nielsen, 2016).

3.4.4 Boundary Objects - 'Sustainability' and 'Assurance'

Boundary Object is another important notion in ANT as these link actors with diverse goals together because it is common to multiple groups, even though they can mean different things to different groups (Briers & Chua, 2001; Channuntapipat et al., 2019). They are both, plastic enough (very flexible) to adapt to varying local needs yet robust enough to have a common meaning to different actors. They are randomly structured in common use and become strongly structured when used with social interaction within a network. Creating and maintaining boundary objects is key to maintaining consistency with intersecting social worlds (Briers & Chua, 2001; Star & Griesemer, 1989).

This notion of ANT supports the translation process and is used to mediate diverse actor networks. Boundary objects which are abstract and not in physical form can gain value only with social engagements in a common setting. They mean differently to different social actors in a wider setting and yet can gain common enough meanings to all the actors in a common setting (Briers & Chua, 2001; Star & Griesemer, 1989). While the concept of translation can be used to understand the SERA process using the four stages, the boundary objects concept is used to call attention to the existence of the taken-for-granted aspects in the translation process, which are subject to varying interpretations and negotiations. According to Star (2010), boundary objects have three important aspects. Firstly, interpretive flexibility where different actors interpret the boundary objects differently based on the use and interpretation of the objects. 'Sustainability' and 'Assurance' are

key terms used widely in the SERA process, which are interpreted differently by each actant (assurors, key stakeholders, SERA standards, SER (GRI) guidelines) in the network and hence given the term 'Boundary Objects'(Briers & Chua, 2001; Channuntapipat et al., 2019; Leigh Star, 2010; Star & Griesemer, 1989).

'Sustainability' and 'Assurance' as boundary objects in this study gain enhanced legitimacy within the SERA network, with the assurors taking the lead role as translators to engage with key stakeholders and non-human actants. The assurors along with the actants, use social networking to give a robust meaning to these abstract boundary objects, which are otherwise interpreted differently by them in the network. These two boundary objects in SERA invoke all the actors to consider SERA as a process that enhances the credibility of SER and assists companies in preparing SER to meet the needs of stakeholders. Sustainability and Assurance get their identities in the SERA process only when the assurors and stakeholders together negotiate and accept their identities along with the identities of non-human actants (Briers & Chua, 2001).

This study considers boundary objects as 'visionary objects' explained by Briers and Chua (2001) as: *"Conceptual objects that have high levels of legitimacy within a particular community. They can evoke similar emotive and effective responses from a wide spectrum of people; possessing a sacred quality that makes it difficult for a 'rational' person to be against them but the precise identity of these objects is unknown until it is customized and tailored to specific settings"* (Briers and Chua, 2001, p.242). Sustainability and Assurance as boundary objects have high levels of legitimacy in SER and SERA processes where the assurors, management of companies preparing SER, and other key stakeholders engage together and other non-human actants to give 'sustainability' and 'assurance' specific and customized meanings which enhances the validity and reliability of the SER and SERA statements. When given customized meanings, these objects can prompt assurors to make decisions on materiality in SERA after engaging with stakeholders and considering the criteria in the non-human actants as a collective. The SERA standards, technology, SERA statements, management report, and internal assurance report are the relevant non-human actants to be considered in the network with the human actors to assign customized meanings to the boundary objects.

To summarise this section, the constructs or notions discussed above emerge around the translation process, which is the key notion used in this study. This study focuses on translation

constructs and boundary objects to understand the issues of stakeholder inclusiveness, materiality assessment, and other major issues in SERA practice and make recommendations accordingly.

3.5 Use of Actor-Network Theory in Accounting Research

ANT is used in different research fields; however, as the assurance practice is related to the accounting field, this section is discussing its application in accounting research. Actor-Network Theory has created an impact on accounting research since the beginning of the 1990s and this continues to date for accounting scholars interested in the practice and sociology of accounting (Barter & Bebbington, 2013; Channuntapipat et al., 2019; Justesen & Mouritsen, 2011; Troshani et al., 2019). While ANT originated in the 1980s with the contribution of Bruno Latour, John Law, and Michel Callon, Latour's writings, particularly his book 'Science in Action' from 1987, have been the major influence on the accounting research (Justesen & Mouritsen, 2011). This chapter reviews some of the major works of accounting research using the important constructs of ANT. Even though there are variations in the ideas generated by the ANT scholars and even by Latour himself as he differs in his own work, which he developed over the last four decades in the form of different versions, they all relate to empirical work and bring out the role of non-human actors like materiality and technologies.

Translation and boundary objects have been utilized to highlight the implementation of accounting practices and the adaptation of accounting technologies. Jeppesen (2010) uses the translation concept to explain how the Danish auditing standards-setting process is accepted by the local actors and, at the same time, how there is resistance from a small group of actants who feel they are left out. However, with ANT, the translators work with these marginalized actants to reduce the resistance. Another study used ANT to explore how sustainability reports of Canadian companies are becoming actants and subject to criticisms from traditional business interests. These reports are now considered ideal and significant actants with ANT reducing conflicting ideas between institutional players, reporting organizations, and GRI (Channuntapipat et al., 2019). Translation has been used to study the changes in accounting systems like activity-based costing, or budgeting systems, as accounting systems do not have intrinsic properties but are flexible for adopting new ones in different settings. This implies that accounting concepts are never merely implemented or diffused as they were originally intended, but go through changes, get translated, and enroll in a network where other actors' interests are also considered (Barter & Bebbington, 2013; Briers & Chua, 2001). Accounting technologies and calculative devices have obtained a more distinct role

because they are considered actors (non-human) in devising, fabricating, and supporting organizational activities. These actors have obtained the 'actorhood' status because of engaging with other human and non-human actors (Justesen & Mouritsen, 2011).

Accounting researchers have used ANT to bring out the significant role of non-human actants (role of calculations and/or accounting systems) in adopting new accounting practices, systems, and models which explain that accounting understanding is incomplete with only analyzing human interactions (Briers & Chua, 2001; Caron & Turcotte, 2009; Czarniawska, 2009; Emsley, 2008; Whittle & Mueller, 2008; Whittle & Mueller, 2010) but are intermeshed with non-human actants. These innovations are successful not because they are the 'best', but because the actants accept their roles in getting enrolled (reports, buildings, accounting systems, calculations) and strengthening the network initiated by the translator around the innovation. Hence, it is not just the translator considered the 'hero' individual, but only one part of the wider network of actants that together drives the innovation (Barter & Bebbington, 2013). This stands strong for social and environmental accountants and assurers when preparing sustainability and environmental or integrated reports and assurance statements where the SER and SERA statements focus on the human actors. ANT can assist environmental and social accounting research in challenging the understanding of "social", "environment" and "organization" and give a new perspective to these concepts and practices. Calculations have gained significant importance in accounting research using ANT, moving from its earlier marginalized position where it was considered more ideological, and dependent on the political and professional environment to personal interpretations of accountants. Hence the role of calculations has changed and is considered a central object in the accounting field. Accounting technologies have advanced and hence have been repositioned with the use of ANT in accounting research. This is because ANT confirms that inscriptions and calculations are critical to providing an understanding of accounting activities and not just influences of conditions and contexts (Barter & Bebbington, 2013; Justesen & Mouritsen, 2011).

ANT can offer a perspective in social and environmental accounting research in the form of case-based analysis of actual practices where an in-depth investigation of how actants translate social and environmental issues within calculation centers, considering what should be black-boxed and what should not be and making decisions in deciding the boundary objects (Barter & Bebbington, 2013). Calculation centers are *'sites where inscriptions are combined and make possible a type of calculation. It can be a laboratory, a statistical institution, the files of a geographer, a data bank, and so forth. This expression locates in specific sites an ability to calculate that is too often placed in*

the mind' (Latour, 1999b, p.304). Black boxes are facts that are considered truth even though there can be conflicting perceptions. This is because these facts have a taken-for-granted status (O'Connell et al., 2009). Miller (1990,1991) is one of the first accounting researchers who combined Latour's important concepts like translation, inscriptions, centers of calculations, and action-at-a-distance with the writings of Foucault to study accounting practices as a technology of governance and calculability (Justesen & Mouritsen, 2011).

ANT has been used to study the implementation of management accounting and activity-based costing (ABC) by adopting Latour's concept of translation to challenge rationalistic and functionalist approaches and abandon implementation as a step-by-step process. Latour's notion of fabrication, network, and black box is being emphasized to explain that management accounting systems are not ready-made settings for implementations but tailor-made ideas and technologies that get reshaped in different settings, and hence the fabrication system is a continuous translation process, thus taking away the belief that the design and the implementation are separate, distinct phases (Justesen & Mouritsen, 2011). Jones and Dugdale (2002) explain that the ABC method of accounting cannot be traced to the contribution of only the original author, but also because of the complex and ongoing translation process where management consultants and computer systems produce bigger contributions to this accounting method. Similarly, ABC is considered a boundary object because the accounting system connects different "actor worlds" when implemented by different actors. This is because ABC brings users with varying goals together, but at the same time, individual goals are pursued and accomplished (Briers & Chua, 2001; Justesen & Mouritsen, 2011; Wong et al., 2016).

In conclusion, ANT has contributed in a productive way to accounting and technology with its useful concepts and systematic principles and continues to motivate social and critical studies of accounting. ANT has made it possible for numerous significant case studies and explanations of accounting technologies in action.

3.6 Use of Actor-Network Theory in Other Research

Since the development of the actor-network theory in 1980, researchers have been using this theory in a wide range of disciplines besides accounting research, as stated in section 3.5. This study performed a structured search across databases to identify relevant papers using this theory in fields other than accounting research. The papers identified relate to the use of this theory in other

social fields like health care, innovation, cognitive science, business, digital games, climate change, and education (Abdelhakim et al., 2020; Cresswell et al., 2010; Ghazinoory & Hajishirzi, 2012; Heeks & Stanforth, 2015; Hung, 2016; Karen & Claus, 2017; Rutland & Aylett, 2008; Takeoka et al., 2009; Wong & Tatnall, 2010). These are shown in the table at the end of this sub-section.

These research studies used ANT and not the traditional theories for the following reasons:

Abdelhakim et al., (2020) lay out how ANT dispensed with the dichotomic distinction between human and non-human actors in a social setting and assigns agency to non-humans also. The researchers were convinced that organizations are considered heterogeneous social networks of human and non-human (textual, material) actors that form an amalgam of associations or alliances (Abdelhakim et al., 2020; Cresswell et al., 2010; Hung, 2016; Karen & Claus, 2017). The notion of 'translation' with the four stages (problematization, interessement, enrolment, and mobilization) was used to conduct the research where the translator creates a set of rules and assumptions to be followed called the OPP (Obligatory Passage Point) (Abdelhakim et al., 2020; Heeks & Stanforth, 2015; Karen & Claus, 2017). Another reason ANT was used is, this theory distances itself from social constructivism and though it supports constructivism, it is different from other constructivist approaches because ANT suggests that society is constantly undergoing changes and entities are under reconstruction, hence society is in a continuous reconfiguration (Karen & Claus, 2017). There are no boundaries between human and non-human, internal and external, materiality and sociality. Actors are hence referred to as actants or entities and are a network and cannot be reduced to anything. Stabilization is temporary and is more of an exception than the rule which is based on the alliances and interessement it succeeds. This makes the translation process dynamic, with identities and goals undergoing adjustments with changes in actions (Cresswell et al., 2010; Hung, 2016; Karen & Claus, 2017).

Another study in implementing information technology in health care organizations appreciates how using the ANT lens, the complexity and fluidity of reality are considered rather than the assumptions of a more linear and causal approach used in traditional research (Cresswell et al., 2010). As a result, ANT produces a nuanced image of the dynamic relationships between actors and focuses on their interrelatedness. This study also highlights how ANT does not a priori create micro and meso divisions or allocate agency to individuals or social structures. It emphasizes that agencies are formed as a result of interaction between network components (Cresswell et al., 2010).

In their study on climate change policy, Rutland & Aylett (2008) refers to ANT as a unique theory. The study used a combination of two theories. The researchers brought out how using the ANT lens puts pressure on the analyst to consider the reshaping of actants when they become part of the network and function as a collective and how non-human entities contribute to social networks (Rutland & Aylett, 2008). The researchers in the study appreciate the significant assumptions of ANT where the entities and their attributes are an effect of their associations with other entities and are not inherent. The entities or actants can be anything from human to non-human forms like animals, computer programs, a piece of legislation, or anything. These non-human actants' recognition in ANT reveals how their associations with human actors give shape to the human actors and create socio-natural worlds. Even as a collective, ANT rejects the assumption of humans being more important, rather, non-humans must be recognized on the same basis. ANT rejects the need for a captain or a shepherd whose interests are considered superior (Rutland & Aylett, 2008).

Another study conducted to understand the technological changes in developing countries used the notion of translation from ANT where the four stages of translation supported detailed scrutiny of the technological changes. This study highlights how ANT, through the detailed description of the changes, focuses on the actor-networks (structures) of relevance to the specific technological changes. The notion of translation brings to light the detailed process of how networks and counter-networks are formed, dissolved, and reformed (Heeks & Stanforth, 2015). The inclusion of non-human and human actants makes this theory stand out compared to traditional theories used to understand technological changes in prior literature. Non-human actants are beyond technology and include texts, objects, plants, animals, or anything (Heeks & Stanforth, 2015). This notion makes materiality active and not passive as it brings technology to the fore, and this makes ANT unique from other theories. Passive materiality only identifies the importance of material objects in technology and development projects (Heeks & Stanforth, 2015). Using ANT notions, this study gave technology an important role where project outcomes are recognized which otherwise would have been ignored if only human actors were considered. Giving agency status to non-human actants has guided researchers to dig into deeper insights.

All these studies used a case study methodology or a conceptual approach. These empirical studies conducted semi-structured interviews, observation, and document analysis to collect data as shown in table 3.2:

Table 3. 2: ANT Used in Other Research Studies

Authors	Journal	Paper Type	Description
Sepehr Ghazinoory & Reihaneh Hajishirzi (2012)	Procedia – Social and Behavioural sciences	Conceptual approach	<p>Using Actor-Network Theory to identify the role of IT in cognitive science in Iran.</p> <p>ANT was used to investigate the role of Information Technology in cognitive science. IT has extra influences on CS and hence convergence of the viewpoints of the actors is needed to gain further success at CS</p>
Karen, A. Murdock & Claus, J. Varnes (2017)	International Journal of Entrepreneurial Behavior & Research	Longitudinal case study	<p>Beyond effectuation : Analysing the transformation of business ideas into ventures using actor-network theory</p> <p>ANT was used to investigate how ideas are transformed into business ventures. This study shows how the entrepreneurial project undertaken by the entrepreneurial network changes as new humans or non-humans become part of it</p>
Abdelhakim, Altabaibeh Kay Ann, Caldwell Margaret, A. Volante (2020)	Journal of Health Organisation and Management	Longitudinal case study	<p>Tracing healthcare organisation integration in the UK using actor–network theory</p> <p>This study used the ANT lens to understand the process of health care organization integration. Combining the ANT and constructive case study to understand the integration process provided the researchers a new perspective to understand the trajectory of change process. The findings indicate that the context nor the actors could be the</p>

sole determinants of the outcome of the integration. But the dynamic interplay between the actors, their context, the shared agency and the resources produced the end result as with the change that emerged

Cresswell, Kathrin M
Worth, Allison
Sheikh, Aziz (2010)

BMC Medical Informatics
and Decision Making

Conceptual approach

Actor-Network Theory and its role in understanding the implementation of information technology developments in healthcare

ANT was used as a combination with multi-sited ethnography to study the implementation of Information Technology Developments in Health Care. This made it an innovative approach of focusing on conducting the study in multiple locations rather than an in-depth study of a single local setting in the traditional way

Hung, Aaron Chia Yuan
(2016)

E-Learning and Digital
Media

Conceptual approach

Beyond the Player: A User-Centered Approach to Analyzing Digital Games and Players Using Actor-Network Theory

The three notions of ANT, Translation (what holds the networks together and how they can be disrupted), Network assemblages (what humans, technologies and routines need to be in place for the players to play) and multiplicity (details of other actor - networks that can impact their play experiences, in – game strategies and relationships) were used to conduct a study on digital games and the players. By evaluating these networks, this study focused on how games fit into the lives of those who play them

Rutland, Ted Aylett, Alex (2008)	Environment and Planning D: Society and Space	A combined Conceptual approach (ANT and Governmentality)	<p>The work of policy: actor networks, governmentality, and local action on climate change in Portland, Oregon</p> <p>This study used a combination of theoretical frameworks to understand climate change policy and to contribute to the shortcomings of earlier research on local environmental governance. This combined approach helped other researchers to investigate the existence of political priorities</p>
Heeks, Richard Stanforth, Carolyne (2015)	Development Studies Research	Case Study	<p>Technological change in developing countries: opening the black box of process using actor–network theory</p> <p>This study used the notion of translation from ANT to get a detailed understanding of technological changes in developing countries where the use of other theories has been very rare.</p> <p>“ANT has been innovative and has crashed many of the dyads existing in technology and development literature: linearity vs non-linearity of technological change; technological – vs. social determinism of impact; macro-vs. micro scale as the appropriate level for analysis of technological processes” pg. 14.</p>

3.7 Critiques of Actor-Network Theory

Sub-sections 3.5 and 3.6 above discussed how ANT is used in accounting research and other fields of research and why it is considered unique. However, this theory faces epistemological,

ontological, and methodological challenges to some extent (Cresswell et al., 2010; Heeks & Stanforth, 2015).

One of the challenges is the strong doubt of whether ANT is really a theory or methodology. This is backed by the fact that the translation process is very descriptive rather than a source of guidance as to how actors should appear and how their actions should be analyzed and interpreted (Cresswell et al., 2010). The notions of ANT need to provide advice to practitioners on the application of theoretical concepts. There are recommendations to use ANT in combination with other theories in conducting analysis and interpretation (Cresswell et al., 2010). This study has not considered this combination option in detail and will be explored for future research when the researcher publishes papers on SERA.

Another challenge of using the ANT lens is the lack of guidance by the theory to understand 'why' things occur when analyzing the relationships between actants in the network. The theory provides an understanding of 'how' actions happen in the translation process when analysing the four stages of the translation process (Cresswell et al., 2010). It is important for the theory to provide guidance on both the 'how' and the 'why' in the translation process.

One further challenge to this theory is the use of empirical evidence to test the validity of the research questions. It is challenging to test with empirical evidence, which can be very broad; hence, it is more useful to use ANT to support interpretations (Cresswell et al., 2010). Developing empirically verifiable evidence can be difficult. However, the notions of ANT have been useful in conducting analysis by following the actors, especially the less obvious ones and the non-human actants as a collective where changes are constant. ANT focuses on continuous transformation in society and especially on the actants that are part of this transformation, even if indirectly and are not obvious (Justesen & Mouritsen, 2011; Latour, 2005).

There are some other challenges for researchers using ANT because of the multiplicity and fluidity of the reality (Cresswell et al., 2010; Latour, 2005). Here, the researcher needs to keep a balance between the focus of the study keeping in mind this multiplicity and fluidity and ensuring the complexities in the relationships are identified and investigated and not overlooked. It is important to break the networks into sub-networks when needed. With these sub-networks, it can then get challenging to how much data to collect and how much to analyse which can be unending. It is important for the researcher to decide how much data is enough. The primary focus should be to

collect data to answer the researcher's questions. This would mean the researcher should focus on particular aspects of the research study. In this study, the primary focus is on materiality in SERA and stakeholder inclusiveness in the SERA process.

Another suggestion could be to include the researcher as part of the network and not stay detached. The researcher selects the actors and actants and has a big influence in selecting the same. Hence it is important to be part of the network and bring about a transformation (Cresswell et al., 2010). In this study, the researcher will conduct a presentation to the participants and give recommendations on the findings and try and contribute to the transformations.

3.8 Conclusion

This chapter has focused on the constructs or notions of ANT as stated in Table 3.1, which has helped develop the research design and methodology. The notions of 'Translation Process' and 'Boundary Objects' are borrowed from ANT (Briers & Chua, 2001; Callon, 1986; Channuntapipat et al., 2019; Latour, 2005; Troshani et al., 2019) to guide this study. The translators in this study, who are the accounting and non-accounting assurors, represent other actors by developing an obligatory passage point (Callon, 1986; Troshani et al., 2019). The other actors include both humans and non-humans and hence are unique to this theory. The non-human and human actants are intermeshed and both have agency relationships (Barter & Bebbington, 2013; Justesen & Mouritsen, 2011; Rivera & Cox, 2016; Wæraas & Nielsen, 2016). For any social network to be successful, it cannot consist of only human-to-human relationships or object-to-object connections, but a mix of both (Barter & Bebbington, 2013; Channuntapipat et al., 2019; Latour, 2005; Michael, 2017). ANT is unique from other network theories as the association consists of not merely people as actors, but also objects and entities, especially the less obvious ones which are also vital in the network. For example, when buying a cup of coffee from Starbucks, the actor network would consist of the customer and the cashier at the counter and the cup of coffee, the cash register, the money, and the premises. In addition, it will also include the less obvious objects like the clothes the customer is wearing as without coming dressed, the customer would not be served. In this study, the role of materiality, qualification of assurors, assurance standards, reporting guidelines, management reports, internal assurance reports, and SERA statements are considered non-human actants. The indirect impacts at the supply chain level, which are less obvious, are considered besides disclosures of social and environmental performance. This is explained in detail in empirical chapters 5 and 6. Problematisation, creating a network of support, and boundary objects are the

important constructs from the notion of translation that illustrate the negotiations and interactions between the amalgam of actants which function as a singular collective (Barter & Bebbington, 2013).

Using the notions of ANT, though very complex, provided a different and unique perspective to understanding SERA practice and contributed to unpacking key findings in materiality assessment, stakeholder inclusiveness, and other material findings in SERA practice which need immediate attention to enhance the credibility of SER and SERA practices. This theory is used to make an in-depth investigation of materiality assessment and stakeholder inclusiveness by giving voices to a wide array of stakeholders and then making interpretations. The notions of ANT guided the researcher to have a deeper understanding and perform a complete analysis of the SERA process, resulting in rich empirical data to answer the research questions and make significant empirical and practical contributions to saving the planet and supporting industry, society, regulators, government, policymakers, and academia.

The next chapter is the philosophy of the research and methodology. This includes the practical data collection techniques used and why they are suitable for implementing actor-network theory to answer the research questions. The chapter completes the research set-up, and attention then turns to its application in practice.

CHAPTER 4: RESEARCH PHILOSOPHY, THEORETICAL FRAMEWORK, AND METHODOLOGY

4.1 Introduction & Overview

The central premise of every research project is based on a paradigmatic stance or a worldview that is based on fundamental tenets of reality, our relationship with reality, and the knowledge we can obtain. World views are usually beliefs based on faith because these topics are pervasive and difficult to prove or disprove by the holder (Guba & Lincoln, 1994). But for researchers, it is crucial to pick out, explain and provide evidence of critical assumptions that support their views. Lee & Lings (2008) emphasizes the need for providing evidence for these critical assumptions as: *“Research is about generating knowledge about what you believe the world is”* (Lee & Lings, 2008, p.6). Though there are logical connections between values and claims of world views, for a research study it is imperative to operationalize data collected using the chosen theory and analysis techniques to unpack important findings and make research contributions.

Chapters 1, 2, and 3 set the grounds to initiate this research project. Chapter 1 states the research questions; chapter 2 is the contextual literature on stakeholder inclusiveness, materiality assessment, and other related aspects of SERA practice. Chapter 3 is the theoretical framework that is taken from ANT for this thesis. This chapter links the first three chapters with the empirical findings in the following two chapters, 5 and 6, by explaining how the research is conducted in terms of the philosophical stances of ontology, epistemology, methodology, and methods to collect research evidence.

There is one important consideration to be highlighted before discussing the philosophical stances in the next section as this consideration foreshadows the discussions in this chapter. The use of Actor-Network Theory throughout the study, where ANT acts as the mediating device to do away with the subjectivist-objectivist divide which is all-pervasive in the social research (Michael, 2017). Using ANT, where human and non-human actors are considered as a collective, is rejecting the supremacy of agency (subjectivist) or structural (objectivist) position. ANT brings out the relationship between the human and non-human actors, the subject and objects emphasizing how there are no differences between the two and cannot be held separate (Latour, 2005; Michael, 2017). Serres (1991) using the example of the football, brings out how the movement of the football (quasi-objects) cannot be considered in isolation of the players (quasi-subjects) and how the football moves between players and shapes human relations. He explains as those *‘relations at the heart of the group constitute their object; the object moving in a multiplicity constructs these relations and*

constitutes the group. These two complementary activities are contemporaneous' (Serres, 1991, p. 102) (Michael, 2017).

This study using ANT has tried to answer the research questions and make contributions using both the circular design and the subjectivist-objectivist complementary position. This study rejects positivism and uses anti-positivism philosophies which is consistent with the primary aim of the research, to focus on interpretations and perceptions of research participants along with the role of non-human actants as a network (Latour, 2005; Lee & Lings, 2008). The implications of realism over positivism are manifold for researchers. Realism places theory as the center of research. Reality is created through the interpretations of different related actants in the network and hence is based on constructivist philosophical assumptions and no single objective reality. The constructivist approach adopted in this study is based on considering the interview data as an interpretation constructed by the interviewees in the particular context and this is a subset of an indefinite number of interpretations, making no interpretation superior to another (Cassell & Symon, 2004). This contrasts with the dominant positivism philosophy used in mainstream literature where secondary evidence was mostly used. The central argument in this chapter is that positivist approaches would be unsuitable for answering the research questions adequately.

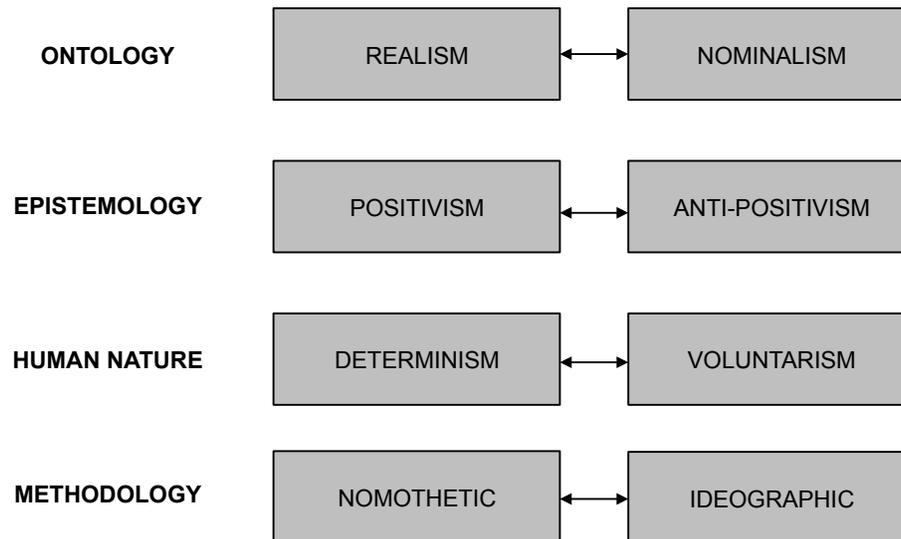
4.2 Research Philosophy

The characteristics of objectivist and subjectivist philosophical positions in social research are discussed in this sub-section before explaining in the next sub-section, the philosophical foundation of this thesis. These were developed by Burrell and Morgan (1979) in their contribution to research paradigms. The objectivist position claims that a single external reality exists, and the subjectivist position claims there is no absolute truth and that reality is a subjective social construction. This is explained to highlight the commonality between objectivist-subjectivist positions and the structure–agency debate at the heart of ANT.

4.2.1 Key Elements of a Philosophical Stance

These elements are illustrated using a framework as shown in Figure 4.1 and are adapted from Burrell and Morgan (1979)

Figure 4. 1: Philosophical Positions



The research paradigms are classified using four dimensions with two philosophical positions at extreme ends. These two extreme positions are being criticised as being mutually exclusive and overly simplistic (Chua, 1986; Ryan et al., 2002). However, the framework is still useful to discuss the proposed philosophical positions to be adopted in a research study.

4.2.1.1 Ontology

Ontology is the study of the nature of reality. In research terms, ontology is defined as a set of beliefs or world views of researchers (Denzin et al., 1994; Lee & Lings, 2008). There are some important questions that drive ontology. For example, is reality objective and independent of our perception of it, or is it constructed by those who experience it? Does it exist apart from our experience of it? (Lee & Lings, 2008).

A realist position is an objectivist one with a belief that the external reality exists as it is and is not created, but only discovered by researchers. It exists independent of researchers and participants and there is no knowledge created by them (Bryman, 2016; Burrell & Morgan, 1979; Chua, 1986).

The researchers pursue discovering the objective, independent truth without any co-construction or giving their perceptions. Hence, if the research design is appropriate as desired, the objective truth

is discovered (Crotty, 1998). A significant contradiction to this philosophical stance is that, since research is conducted by human actors, their emotions and values will always come in the way of objectivity, making the search for absolute truth futile (Lincoln & Guba, 2016).

In contrast, the nominalist position is a subjectivist one, which views reality as “emergent, subjectively created and objectified through human interaction” (Chua, 1986, p.615). Reality is the perceptions of researchers and participants and not an absolute truth. Hence, language plays a central role to articulate perceptions to others. In a nominalist position, the researcher is inevitably entangled in the research study by embracing subjectivity and is not viewed as anything negative.

4.2.1.2 Epistemology

Epistemology follows from an ontology and is defined as the study of knowledge of reality and is based on the perceptions of what reality can be (Lee & Lings, 2008). For example, is the knowledge-generating unbiased, generalised knowledge about the world? In that case, it should be considered as positivist ontology and is consistent with a realist perspective. Alternatively, if the knowledge is specific, rich, and contextual to a particular time and place, it should be considered an anti-positivism (Lee & Lings, 2008). The reality of these approaches is the fact that knowledge is created with time-space specificity and is not just present and waiting to be discovered (Lincoln & Guba, 2016). Ontology and epistemology are closely linked and according to some academics like Crotty (1998), they are so informed by each other that they become almost indistinguishable. Hence the ontological positions inherently influence the nature of knowledge that can be collected. Thus, it makes little sense to have a realist ontology where knowledge needs to be constructed.

4.2.1.3 Human nature

An objectivist view would be that the activities are determined by the environment, while a subjectivist view considers researchers have their autonomy and are free-willed (Burrell & Morgan, 1979). ANT provides mediating concepts here. The duality or complimentary structure rejects the supremacy of either structure or agency and in fact, the two are interwoven. This study uses the duality of structure and agency from the human nature perspective (Michael, 2017; Serres, 1991).

4.2.1.4 Methodology and methods

This sub-section is about the practical data collection and analytical techniques crafted to obtain the research objectives. The methodology involves justification for choosing the basis of data collection methods (Nutbrown & Clough, 2012). Methods and methodology are not the same and should not be confused as methodology occupies a space above practical methods. The type of methodology is decided based on ontology, epistemology, and human nature decisions made to fit the broader paradigm. In the framework above there are two contrasting methodological dichotomies; nomothetic and ideographic (Burrell & Morgan, 1979). A nomothetic methodology is a highly structured one, based on broad generalisations, and uses quantitative methods. Whereas, the ideographic methodology is based on how the study develops the understanding of how the research participants or actors create, modify, and interpret their world (Burrell & Morgan, 1979).

4.3 Philosophical Foundations of The Thesis

This study adopts the four elements as suggested by Crotty (1998) to set out the philosophical stance. These are structured as ontology, epistemology; theoretical perspective; and methods. Each choice influences the next level to provide consistency and clarity to the research study.

4.3.1 Ontology and Epistemology

As stated earlier, this study uses ANT as the overall theoretical framework. This theory has its own ontological and epistemological position, where the main premise is, the world is made up of networks. The networks can include humans, things, concepts, and ideas, and all these are called actors in the network (Cresswell et al., 2010; Latour, 2005; Michael, 2017). Hence, the theory acts as a bridge between the objectivist (structuralist) and subjectivist (agency) positions. Central to the ontological position in this study is the duality of structure and agency, where ANT emphasizes the idea that *'we (humans) are not in society any more than we are in nature'* (Latour, 2005, p. 241) and that humans and nature are co-constituted by each other, and the terms 'human' and 'nature' are merely useful locational identifiers. Using this stance, ANT uses the society-nature dualism ontology (Barter & Bebbington, 2013). ANT abandons the distinction between the realms of 'nature' and 'culture' and considers these 'realms' as entwined and have no meaning if the focus is only either on humans or on nature (Latour, 2005; Law, 1992). The notion of 'translation' in ANT is further used to help elucidate the duality position and avoid the retreat to an object or subject-orientated

ontology. This notion highlights that the two actants (the sociologist and the journal) are dependent on each other and neither has more power (Latour, 1999b). The use of the term 'flat land' in ANT denotes that scale and hierarchy of any form cannot be assumed and that all connections need to be fully traced as the world is not made up of only agency or only structure frameworks or scalar contextualisers such as macro and micro (Barter & Bebbington, 2013; Latour, 2005).

Considering the epistemological position in this study, ANT uses constructivism and not social constructivism as advocated by Latour (2005). This is because social constructivism considers humans as actors and ANT does not distinguish between humans and non-humans as actors. In contrast to the normal constructivist approaches, ANT provides various notions to explain how the network continues to reconfigure itself on the premise that society is constantly in the making and that entities are constantly under reconstruction (Murdock & Varnes, 2017). From a constructivist perspective, the change is not the result of linear, rational improvements or functional adaptations to new demands but an outcome of historical, contingent processes in which new additions appear because heterogeneous elements such as different groups of people, different technologies, different non-human actants are temporarily linked together at a particular moment in time (Justesen & Mouritsen, 2011). Latour (2005) states, '*An actor-network is what is made to act by a large star-shaped web of mediators flowing in and out of it. It is made to exist by its many ties, attachments first, actors second*' (Latour 2005a, p.217). Michael (2017) also explains this similar epistemological position using ANT by explaining that the heterogeneous relations and circulations when studying society, need to be studied in their specificity as it is difficult to say what enters them or what emerges from them. Hence it is important to pay close empirical attention to these relations, circulations, and entities and not indulge in making assumptions about them (Michael, 2017). It is critical for the researcher to get into the middle of the action where connections are continuously being made (Steen et al., 2006, p.207) and remade, decentre everything, and think relationally and not in isolation (Castree, 2002) or in bounded wholes. This is because when ANT is used, its epistemology does not permit a demarcation of what is valid and what is not valid for analysis, but rather all that can be observed is included for analysis, even the less obvious one's (Barter & Bebbington, 2013; Latour, 2005) and ANT '*defamiliarize what we may otherwise take for granted*' (Calas and Smirch, 1999, p.663). Boundaries and differences are broken (Latour, 2005; Law, 1992) and are only 'observable' to the extent the researcher places them as an explanatory device to support the action. The outcome of the analysis can be a 'de-naturalization' of the status quo. While the ANT approach is strongly cognisant of reflexivity, it emphasizes that no assumptions what so ever to be made by researchers, but ensure all relationships are traced, recorded, and exposed by

asking the most simple, obvious, and even stupid questions (Barter & Bebbington, 2013). To sum up, ANT epistemology is performance-based rather than an original or final state (Calas & Smircich, 1999).

In the mainstream literature as stated in Chapter 2, the SERA process, materiality in SERA, and stakeholder inclusiveness are positioned within an objectivist paradigm where mostly secondary evidence is used for analysis. The researchers have not got themselves in the center of the actions to understand how the connections are made and remade between all actors to perform SERA. They also did not trace if all actants including the less obvious and taken-for-granted ones were taken into consideration before making the generalised interpretations. This study uses anti-positivism logic as the research objectives are based on the interpretations and perceptions of the research participants. This study uses notions of ANT, where the researcher is at the center of the research and observes all relationships to understand materiality and stakeholder inclusiveness. The researcher engages with all human and non-human actants to analyse the negotiations made by ASAPs and NASAPs to establish the OPP (Callon, 1986; Latour, 2005) and to problematise stakeholder inclusiveness and materiality in SERA. The constructed meanings of materiality, stakeholder inclusiveness, and other issues of SERA are varied, allowing the researcher to look at the complexities of specific contexts and bank on the participants' views in this regard (Creswell & Poth, 2016). Constructivism epistemology supports the understanding that the research questions of SERA-materiality decisions, the extent of stakeholder inclusiveness, and credible SERA statements issued at the end of the assurance process are answered using notions of translation and the four stages/moments of the translation process, non-human actants, and boundary objects. This implies reality is formed and developed only through the interactions of the researcher with research participants (Creswell & Poth, 2016) along with consideration of non-human actants and their role in the network. It is not possible to understand reality by standing apart from it as reality is volatile, unavoidably relational, and unsteady with new ones emerging or original ones being remade (Latour, 2005; Lee & Lings, 2008). All these positions are relevant to answering the two main research questions in this study. None are consistent with objectivism or subjectivism ontologies in isolation or with social constructivism epistemology.

4.3.2 Theoretical Perspective

This study uses the theoretical perspective of interpretivism which flows from the other philosophical stances discussed above in sub-section 4.3.1. Phenomenological interpretive epistemology, along

with the induction philosophy (modified into a circular design inductive approach) is used in this study. Phenomenology is the understanding of human experiences and of the environment within which humans go through these experiences. The key aspect of phenomenology is the connection between the subject and the object which is inextricable. This means the one going through the experience cannot be separated from the experience. Phenomenology is not about evaluating the experience for its truth, but specifically to understand the experience. Interpretive epistemology uses interpretation rather than just science to analyse the contents of the problem (Lee & Lings, 2008). This study is using phenomenological interpretive approach because this is the most appropriate way to justify the method used (semi-structured interviews and review of documents) to collect rich data to answer the research questions. Voices were given to the research participants along with a review of the documents (non-human actants) to support the constructionist ontology of ANT to be able to perform a complete analysis of materiality and stakeholder inclusiveness in SERA. The human and non-human actants are a collective and an actor is a network, and a network is an actor (Latour, 2005) even if our analysis is from an assessor perspective. The researcher makes interpretations from the interpretations of the research participants and a review of the documents. The purpose is to understand the experiences of the human actors rather than the truth. And then to make interpretations on the ethics of SERA practice to make empirical and practical contributions.

ANT is also based on the *anti-reductionist* approach where observations are not replaced or reduced to general explanatory factors 'behind' the scene or 'underneath' the surface. This implies that every setting must be analyzed as a 'flat space', indicating empirical observations set the boundaries of the setting. This flatness of the social world ensures clear visibility of any new attachment. This makes Latour's epistemology a constructivist and realist one and is far from subjectivist and idealist philosophies (Justesen & Mouritsen, 2011; Latour, 2005).

Another important aspect of interpretivism is the knowledge claims obtained with this approach are bounded, tentative, and subjective (De Loo & Lowe, 2017). The interpreted claims are bounded with the research being context specific; tentative due to the exploratory nature of research and subjective as the researcher is in the center of the research act, entangled in it. Hence, the knowledge produced using an interpretive approach is not objective, not absolute, or neither generalizable (Crotty, 1998, p.16).

This study uses the interpretive philosophical approach where the researcher considers the interpretations of a wide array of stakeholders, besides ASAPs and NASAPs who perform SERA.

The interpretive approach provide guidance to develop more pertinent questions when engaging with stakeholders to operationalise materiality and stakeholder inclusiveness in SERA practice. This is because there are no pre-determined assumptions to be tested (Hopper & Powell, 1985). This research study is based on the interpretive approach using constructivist philosophical assumptions. The reality of materiality, stakeholder inclusiveness, and other issues in SERA is not generalised as a single objective but is created through the interpretations of related actants, even the less obvious ones. With the use of the society-nature dual ontology, there are different ways for people to perceive reality or world views and hence there are different forms of reality constructed by people. The researcher in this study did not consider the data from semi-structured interviews to gain insights into understanding the experiences of the interviewees. Rather the researcher used the interview data as interpretations constructed by interviewees in that context, which is part of an indefinite number of interpretations (Cassell and Symon, 2004, p.13). This implies no interpretation is superior to the other. The research findings are the interpretations of the researcher which are based on the voices of research participants, making it a mix of both (Denzin et al., 2005).

Hermeneutics is the foundation stone for an interpretive philosophical approach. This is because, this study design is to delve into the minds and “meaning-making” and “sense-making” (Guba and Lincoln, 2013, p.40) of the research participants. It was developed for Bible interpretations but later used to understand human experiences (Lee & Lings, 2008). The hermeneutic circle is one important concept associated with the use of hermeneutics, which is a process of gaining an understanding of a specific phenomenon that is a part of the larger ‘whole’ from where it is derived, and also understanding that this whole gets its meaning from its various parts (Lee & Lings, 2008). ANT uses the hermeneutic circle concept, where Latour (2005) brings out that no actor is seen as acting alone. Every actor is part of a network that makes a particular action possible. This relational approach implies that “*attachments are first, actors second*” (Latour 2005a, p.217). Latour tries to bring out that “*It is in this complete reversibility – an actor is nothing but a network, expect that a network is nothing but the actor – that resides the main originality of this theory*” (Latour, 2011, p.800; Michael 2017). Law (1992) also emphasizes how he would not be a sociologist writing papers or delivering knowledge if any of the actants were taken away like the computer or pen or desk or colleagues, but rather something else.

4.3.3 Methods

Methods are techniques or procedures used to collect and analyse the data in research studies that aim at answering the research questions (Crotty, 1998). This study uses *qualitative* methods to collect data and achieve the objectives of this study which supports its ontology and epistemology. The research approach provides justification for the choice of a specific recipe to decide on data collection methods (Nutbrown & Clough, 2012). There are various definitions of qualitative research, but they all aim to provide an in-depth understanding of the social process and relations (Hoque, 2006). Qualitative research uses text rather than numbers to analyse and interpret human experience to understand the research problem and recognises the researcher's role in constructing the knowledge (Petty et al., 2012). As Creswell (2007) states; 'Qualitative research begins with assumptions, a world view, the possible use of a theoretical lens and the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human problem. To study this problem, qualitative researchers use an emerging qualitative approach to inquiry, collecting data in a natural setting sensitive to the people and places under study. Data analysis is inductive and establishes patterns or themes. The final written report or presentation includes the voices of participants, the reflexivity of the researcher, and a complex description and interpretation of the problem, and it extends the literature or signals a call for action' (Creswell, 2007, p.37).

This study adopts the inductive approach with interpretive epistemology. The inductive approach is further justified because of the very limited prior research on SERA materiality (Edgley et al., 2015). Theory plays an important role to provide guidance to explore accounting practice. No hypotheses are generated from the theory chosen for testing which is the case with the deductive approach. This makes the inductive epistemology appropriate along with the ANT theory to make interpretations. The epistemology and theory allowed the researcher to answer the research questions of materiality in SERA, and stakeholder inclusiveness without making a *priori* assumption. Latour (2005) asserts that every observed phenomenon needs to be explained, not assumed. The inductive approach, therefore, considers theory as a guide for the researcher to understand reality or the worldview. The inductive approach even helps further the development of theory with the data collected (Saunders et al; 2007, p.199).

This sub-section brings a distinction between qualitative and quantitative research, which has not been discussed earlier in this thesis. It is because this study which is consistent with others such as Crotty (1998) and De Loo and Lowe (2017), considers them as important ways to group methods

rather than as methodologies or overall philosophical perspectives on research. This study has adopted Ahern and Chapman's (2006, p. 827) approach that field research needs “*close engagement rather than objective, distanced capture*”. Both quantitative methods (for example, a survey) and qualitative methods (for example, semi-structured interviews) can be used in a field study. However, it is the epistemological and theoretical positions of constructivism and interpretivism, that prompt the choice of methodology and this in turn decides the choice of suitable methods. This study is guided by ANT from the beginning, where the researcher must engage and understand the experiences of the research participants and the role of non-human actants together. It is the philosophical foundation of this study that rejects the use of surveys or other quantitative methods. Semi-structured interviews with human actors and reviews of non-human actants along with discussing them with the research participants are the qualitative methods used in this study. The research design is explained in the next section stating the interview forms, participant recruitment, and other details.

4.4 Reflexivity on The Role of The Researcher in This Study

This study using ANT theory is guided by an inductive ontology and interpretive theoretical approach based on anti-positivism epistemology where the researcher is placed in a central position. It is accepted that knowledge is socially constructed, and hence the close engagement of the researcher with informants and the overall research process is essential (Lee & Lings, 2008). As stated earlier, this study uses constructivism and not social constructivism where the researcher engages with human and non-human actants without making any a priori assumptions or being influenced by any supremacy between human and non-human actants (Latour, 2005). This subsection acknowledges the role of the researcher in constructing knowledge of the specific issues of SERA practice which explains the close relationship of the researcher with the participants and the non-human actants. This section provides a reflection on the researcher's role, the opportunities, and challenges faced in conducting the study, and the steps taken to manage these challenges.

The reflexivity of the role of the researcher must be considered using the three methodological principles of ANT which support and guide the researcher's role: agnosticism, generalized symmetry, and free association (Doolin & Lowe, 2002).

The first principle of agnosticism suggests researchers should be unbiased in making judgements of the empirical evidence obtained from the actors and not censor any of the empirical data collected

from any of the actors, especially when there are controversies between actors. The researcher ensured this risk was kept low by adopting a fair method of selecting the research participants. Except for one of the Big Four, all the other research participants were not known to the researcher on a personal level prior to this study. The researcher contacted them on a professional basis after they were referred to by a professor at Aston Business School. The researcher met the professor through an online sustainability conference that was hosted in India. The professor had worked on sustainability research projects in India prior to his career with Aston University and hence the researcher took this opportunity to obtain reliable contacts. The professor only shared as potential the names of ASAPs, NASAPs, regulators, NGOs, and companies preparing SER. The researcher took it from there and browsed through company websites and LinkedIn profiles to make initial contact with these potential participants who were very well-informed about the research topic. The researcher was successful in obtaining most of the potential participants' email addresses and phone contacts and sent them emails explaining the details of the research project and the need to get their concurrence to participate. This exercise clearly required perseverance and patience which the researcher managed very well with her professional auditing, academic experience, and interpersonal skills. Even for the one participant (one of the Big Four's accounting firms) where the researcher had worked earlier as a financial auditor, the researcher conducted the interview with more than one participant, the ASAP, and the consulting partner, making it more of a focus group interview. This group setting helped to reduce the risk of significant bias as the semi-structured interview discussion would be less personal.

The second principle of generalized symmetry refers to researchers considering human and non-human actors at the same level and considering explaining them using the same terms (Callon, 1986). The researcher chose to use ANT to answer the research questions from a different perspective as mentioned earlier. One of the strong characteristics of this theory is the consideration of non-human actors at the same level without making any assumptions about which one is superior. The researcher collected rich data by engaging closely with human actors (ASAPs, NASAPs and stakeholders) using semi-structured interviews. This was possible because of the interpretive method used and the close face-to-face engagement with human actors, even though the interviews were conducted virtually because of the covid travel restrictions in 2021. However, the researcher ensured the non-human actants (SERA standards, GRI standards, management reports, SERA statements, and internal assurance reports) were all considered for data collection and analysis. These were also discussed in depth at the time of the interviews besides reviewing the non-human actants which again is guided by the principle of symmetry from ANT. The non-

human actants are treated as primary evidence using this theoretical framework and hence reduce the risk of not complying with the principles of ANT.

The third principle refers to free associations, meaning the researcher must abandon all a priori divisions between natural and social events (Callon, 1986). There should be no boundaries between the social and the natural. It is important for the researcher to trace all the actants in the network and to understand how the associations assemble, and how they can be disassociated and reassembled (Latour, 2005). This was ensured by the researcher by selecting a wide array of actants as research participants and besides the review of the non-human actants, the discussion of the role of the non-human actants with the research participants. The selection of a wide array of actants, both human and non-human was guided by the theory and this strategy was used to extend the limitation of the mainstream literature. Multiple case study was used for this research to collect rich data and at a time specificity. There were major issues brought out in the discussions besides answering the primary research questions which are evidence that the researcher was tracing the associations to understand how they are formed, how there could be passive or less obvious actants, and how their associations need to be traced and how the associations can disassemble and then reassemble. Technology which is an important non-human actant was not discussed in depth in this study and will be taken up in future research. This is because SERA is in its nascent stage, and the research participants did not provide enough empirical data on technology. This makes it significant for future research.

There were other challenges in this journey because of the Corona Virus pandemic being at its peak in mid-2020 in India when the researcher was required to connect with participants and seek their concurrence to participate. With the new '*Work from Home*' model and travel restrictions, it was challenging to get participants to accept invites to participate in meetings. The research participants were adjusting to their new ways of working and the researcher initially found it very difficult to get participants' availability due to time constraints and a heavier workload. The researcher had to make several attempts and send courteous reminders to request their participation which the researcher pursued patiently. The biggest advantage was being in the auditing field earlier with the Big Four accounting firm and with prior knowledge of auditing, the researcher was able to convince the participants about the objectives of the research study and how their participation would add value, and how the researcher, in turn, would make contributions to the assurance profession, to stakeholders and to academia. As the semi-structured interviews were conducted in covid times during the year 2021, the virtual mode was adopted using MS

Teams. There were minimal challenges in terms of the virtual meetings. Language too was not a barrier even though most of the participants were based in India. The interviews were conducted in English and hence this made it very comfortable for the researcher. The researcher's networking skills, endurance, and professionalism have contributed in a very big way to making this research journey possible especially in getting access to and obtaining data. All the participants were partners or at the management level and hence the researcher was assured of expertise, data quality, and quantity. They were all very well-informed and very collaborative. It was difficult to obtain specific documents like SERA engagement letters, management reports, or internal company policies because of confidentiality. They were very cooperative in providing the information and sharing public documents like SERA statements. There was no issue in getting their concurrence to record the interviews, except for one regulator. This made it easier for the researcher to focus completely on engaging closely with each participant during the interview and not lose focus with having to take meeting notes.

The researcher took advantage of the opportunities and overcame the challenges to obtain quantity and quality data for analysis and to make interpretations using the notions of translation, boundary objects, and non-human actants in ANT. The researcher's close engagement with participants meant that it was impossible to unpick the "researcher and the research act" completely (De Loo and Lowe, 2017, p.1798). Hence, reflecting on the researchers' experiences through the journey is a continuous process. The term 'reflexivity' is to lay out the risks of researchers taking the same position as laypeople rather than being an expert. It is possible for researchers to have their own perceptions and preconceptions of the worldview, and these can be infected by self-interests. According to Lee & Hassard (199, p.397), "Reflexivity hence considers relativism over the quality of empirical claims. Since research is a reflexive process, it follows that researchers should be reflexive – attuned to recognizing that though they have preconceptions, they are ready to give a cleansing account of their positions, preconceptions, and interests" (Lee & Hassard, 1999).

4.5 Data Collection Methods

Developing a suitable research design to conduct a field study and collect evidence involves decisions of integrating the philosophical stances (Ontology, epistemology, methodology, and methods), ensuring feasibility by obtaining valid and reliable evidence to answer the research questions.

Embedding theory (ANT) into the research design prompted the researcher to decide on semi-structured interviews and a review of relevant documents as primary sources of evidence. Using the notions of 'translation process', 'non-human actants', and 'boundary objects' from ANT supported the use of these two primary sources of evidence to collect rich data to answer the research questions. These choices also fit into the theoretical perspective of interpretivism-based research given its criteria of "understanding social reality as a construction of the individual participants" (Lee and Lings, 2008, p.65). Semi-structured interviews enabled the researcher to closely engage face-to-face with research participants to understand their interpretations (voices) of SERA practice and not rely solely on the researcher's own interpretations which was the case in most of the prior research on the SERA practice (Manetti & Toccafondi, 2012; Perego, 2009; Perego & Kolk, 2012; Peters & Romi, 2015). Review of documents and discussing these non-human actants with the stakeholders as primary evidence in this study increases the validity and richness of research evidence. This is because using ANT, the non-human actants are considered material and at the same level as human actants with the actor-network being a 'flat' structure (Latour, 2005; Michael, 2017) and the superior position is only considered once the associations are complete and the translation is performed. This asserts that both sources (semi-structured interviews and review of documents) of research evidence are important and complement each other to use the theory to conduct the analysis of the data collected and make interpretations (Callon, 1986; Latour, 2005; Makrygiannakis & Jack, 2018; Michael, 2017). The non-human actants enabled the researcher to trace the relations and to make interpretations of the research findings from semi-structured interviews.

4.5.1 Overview of Design and Data Collection

Table 4.1 below illustrates the research design for this study. Both the sources being considered as primary evidence, the research data was collected in a single stage. The researcher reviewed the SERA statements, the SERA standards, and the GRI standards before conducting the semi-structured interviews. This was done to trace the connections in the SERA assemblage and to discuss the roles of these non-human actants with the research participants. The evidence is obtained from both sources together in a specified time frame. The research design as shown below is based on the notions of ANT used in this study as shown in Table 3.1 in chapter 3.

Table 4. 1: Research Design:

Notions of ANT	Sources Of Data	Research Participants
Translation process – Main Translators	Semi-structured interviews virtually conducted (face to face) with human actors	ASAPs NASAPs
The four stages in the translation process – Problematisation, Interesement, Enrolment and Mobilisation	Review of documents before the interviews and discussion with ASAPs and NASAPs on the role of the relevant non-human actants – engagement with non-human actants	ISAE 3000, AA1000, GRI guidelines, SERA statements Qualifications of ASAPs and NASAPs Management report Internal Assurance reports
Translation process – Other Main Actants (Human and Non-Human)	Review of non-human actants after the interviews to assist when analysing the interpretations of the research participants	ISAE 3000, AA1000, GRI guidelines, SERA statements
The four stages in the translation process Problematisation Interesement Enrolment Mobilisation	Semi-structured interviews with human actors	Reporting companies - Sustainability heads Regulators NGO's
	Review of documents before the interviews and discussion with sustainability heads of reporting companies, regulators and NGOs on the role of the relevant non-human actants – engagement with non-human actants	ISAE 3000, AA1000, GRI guidelines, SERA statements Internal Assurance reports, Management reports, Company specific documents that were shared by some research participants.
	Review of non-human actants after the interviews to assist when analysing the interpretations of the research participants.	ISAE 3000, AA1000, GRI guidelines, SERA statements Company specific documents that were shared by some research participants.
Boundary Objects – Sustainability Assurance (Complementing the Translation Process)	Semi-structured interviews with human actors	ASAPs NASAPs Reporting companies - Sustainability heads Regulators NGOs

Review of documents before the interviews and discussion with ASAPs and NASAPs on the role of the relevant non-human actants – engagement with non-human actants

ISAE 3000,
AA1000,
GRI guidelines,

Review of non-human actants after the interviews to assist when analysing the interpretations of the research participants.

ISAE 3000,
AA1000,
GRI guidelines,

Using semi-structured interviews, the researcher engages with research participants and hence has access to their perceptions, beliefs, and experiences. This method has more flexibility and hence is the most widely used method in the qualitative research (Bell et al., 2022). Open and probing questions can be asked to respondents to make them think, define, and describe SERA practice, materiality, and the need for stakeholder inclusiveness and provide extensive and developmental answers and reveal attitudes (Saunders, Lewis et al. 2016; Adams, Raeside et al. 2014; Duignan 2016). Probing questions provide an opportunity for the researcher to ask follow-up questions and to probe unclear answers to get the meaning of the responses, providing richer and thicker data (Saunders, Lewis et al. 2016; Adams, Raeside et al. 2014; Duignan 2016). In the case of sensitive/confidential information, semi-structured interviews are more suitable to drive responses, as the respondents would prefer responding to interviewers they have met, especially where such questions are unclear and they are not convinced how their responses will be used (Saunders, Lewis et al. 2016). Specific issues of SERA materiality, stakeholder inclusiveness, qualifications of assurors, the scope of assurance, and the need for internal assurance, can be understood in greater depth and detail using this method.

There are also some important limitations in using semi-structured interviews which need to be considered. Researchers should not impose their own beliefs on the questions and hence always avoid leading questions (Saunders, Lewis, et al. 2016). Other quality issues of data in using this method are interviewee bias and participant bias. Interviewee bias is because the interviewee is not able to reveal all information to sensitive questions. Participant bias is when all respondents may be unwilling to participate due to the effort involved and time constraints. Hence the sample of respondents selected can be biased and not representative of the population (Saunders, Lewis, et al. 2016, Adams, Raeside, et al. 2014). Cultural differences (language and beliefs) can also affect

the scope and quality of data collected in the interviews. The interviewer may not get the correct responses to the questions due to this cultural difference unless the interviewer develops a close relationship. Similarly, the interviewer may not interpret the words and meanings of the respondents correctly or fails to understand them, thus affecting the quality of the data (Saunders, Lewis, et al. 2016, Adams, Raeside, et al.2014). These issues were considered by the researcher and ensured they were kept to the minimum as discussed in sub-section 4.5 above – reflexivity of the role of the researcher.

A review of documents as mentioned in table 4.1 above has supported the data collection process in the same manner as the semi-structured interviews. Both sources complement each other. This review is to trace the associations in the network and how the assembling, disassembling, and reassembling are being constructed. This source of evidence also provides confirmation to the interpretations made by human actants about materiality, stakeholder inclusiveness, and other issues that came up from the open discussions. The philosophical and epistemological positions of ANT influence the data collection methods. Hence the semi-structured interviews with open-ended and probing questions provided the research participants the freedom to develop their own independent thoughts of their experiences and perceptions (Callon, 1986; Latour, 2005; Makrygiannakis & Jack, 2018; Smith & Fieldsend, 2021).

4.6 Critical Design Decisions

There are important decisions to be made after deciding on the research design to ensure the philosophical positions as discussed in sub-section 4.3 are embedded in the data collection phase. These decisions are discussed in the sub-sections below.

4.6.1 Use of Single Method vs Multiple Methods

This decision is made considering the dual structure-agency ontology and interpretive epistemology of ANT as explained above in sub-section 4.3. Using ANT, the researcher needs to follow the actants closely in the network and understand how the associations are made and dismantled, and reassembled again. In this study, only the single method of individual interviews was decided due to the pandemic restrictions, using semi-structured interviews with human actors which were conducted virtually. With the new 'Work from Home' model and the increase in workload for most of the participants as they held high-level positions - partner or managerial, they could participate

only as a single participant and not as focus groups. For one of the ASAPs and for two of the reporting companies, two participants attended the semi-structured interviews. The use of multiple methods which is a combination of focus group interviews and individual interviews can be of an added advantage to the researcher. The data from focus groups can generate a range of views and the researcher can consider the issues by applying a wider-angled lens. This can then further help to determine the more relevant questions to be used in the individual interviews (Lambert & Loiseau, 2008; Morgan, 1997).

To minimize the risks of using only a single method, the researcher selected a wide array of actants from different organisations rather than from just one organisation. The ASAPs, NASAPS, and other stakeholders and non-human actants were from more than one organization. This supported the researcher in achieving a wider-angled lens. This was a major limitation in earlier research to understand materiality and stakeholder inclusiveness (Canning et al., 2019; Edgley et al., 2015).

4.6.2 Documentary Analysis

Using the epistemological position of ANT which is constructivism and not social constructivism as explained in section 4.3 above, McLean and Hassard (2004, p. 503) further confirm that for “*ANT, the social and the technical are analytically*” embedded in each other because “*there is no thinkable social life without the participation of non-humans, and especially machines and artifacts*” (Callon and Latour, p.359). This study reviewed non-human actants in the form of a documentary analysis of SERA statements, SERA standards, GRI guidelines, and organisation-specific documents. These were reviewed before the interviews to frame discussion questions with the human actors as ANT considers human and non-human actants at the same level without making any assumptions. Hence, non-human actants in the form of documents were reviewed independently by the researcher and discussed at the interviews to consider the actants as a collective and to trace the associations and the reassembling of the social. There were other non-human actants in the form of management reports, internal assurance reports, and qualifications of ASAPs and NASAPS that were discussed at the interviews and brought out for discussion by the human actors. The researcher was not able to review these documents as the participants were not comfortable sharing them but were discussed in depth at the interviews with all stakeholders, besides with ASAPs and NASAPS. Discussing the documents further reduces the risk of not complying with the significant principles of ANT – generalized symmetry and free associations which provide guidance to the researcher.

4.6.3 Epistemology

The clarity in the epistemological decision is crucial to ensure the data is collected using adequate sources. Using interpretive epistemology in this study as discussed earlier, it is critical the interview guides are developed adequately to ensure rich data is collected from the interviewees. Similarly, with the non-human actants, as they cannot speak, besides the researcher reviewing them, they needed to be discussed with the research participants. These techniques are guided by epistemological decisions. The knowledge generated in this study is influenced by the lived experiences of the people and their interpretations of the role of non-human actants.

Hence, this study uses open and probing questions using semi-structured interviews, and participants are provided with the freedom and opportunity to recount their experiences and voice out their thoughts and ideas. The interpretive approach is designed to consider the participants' perspectives (human and non-human) along with taking their claims and opinions seriously (Smith & Fieldsend, 2021).

4.6.4 Participant Recruitment

In qualitative research, it is important to ensure that the selected research participants are adequately experienced to contribute to responding to the research questions. When developing the contact list of prospective participants, it is crucial to consider the professional knowledge and experience of participants as valid criteria (Creswell & Clark, 2017). In this study where SERA is at its nascent stage, the researcher ensured before progressing further with the research participants, that they had knowledge of sustainability and environmental reporting, assurance of SER, and other related aspects of SER and SERA. As stated in section 4.5 above, reflexivity on the role of the researcher in this study, the researcher had no issues in confirming the professional experience of ASAPs and NASAPs given the researcher's experience as an auditor earlier with one of the Big Four accounting firms. The researcher being a professional auditor earlier had access to the Big Four accounting firms to confirm the professional experience of participants. For ASAPs and NASAPs recommended by the professor from Aston Business School due to his earlier involvement in sustainability projects in India as stated in section 4.5 above, the researcher verified the professional qualifications and designations using LinkedIn and by downloading SERA statements where the ASAPs or NASAPs were the signing partners. In terms of stakeholders like reporting companies, NGOs, and regulators, the researcher confirmed with the professor making the

recommendations via a virtual meeting using MS Teams to confirm the designations of the recommended participants. Additionally, the researcher cross-verified their designations using virtual platforms like LinkedIn and the company websites before formally inviting them to semi-structured interviews. Their professional experience was reconfirmed when the researcher met the participants virtually using MS teams at the time of the interview sessions.

The researcher considered the work experience, their designations, and roles in the organisations and their professional exposure to SER and SERA. All the research participants were at the management level and had professional experience. McLean and Hassard (2004) have highlighted the 'inclusion/exclusion' debate where there is a criticism of who should be included and whom to exclude as research participants (McLean & Hassard, 2004). This study used the notions of the translation process, boundary objects, and non-human actants to ensure participants were selected adequately, both human and non-human (Callon, 1984; Latour, 2005; Leigh Star, 2010).

A formal Participant Information Document and a formal Consent Form were sent by email to each potential research participant making a request to participate in this research study (Bell et al., 2022). The researcher's email included a self-introduction, the objectives of the study, the participant information sheet, and the consent. All participants responded positively and were happy to meet up virtually. Most of them requested for the research questions to be emailed in advance of the meeting so they could agree on expectations with the researcher.

4.6.5 Approach to Recording and Transcription

These are important decisions to be made as the researcher must focus on the participants to gain maximum contribution from their interpretations towards answering the research questions. The epistemological approach of interpretivism used in this study makes it crucial for the researcher to ensure the voices of the participants are always a priority and can be heard adequately. Recording allows the researcher to focus on the questions and the discussions and hence supports the researcher by enabling returning to the original conversation, again and again, (Kvale & Brinkmann, 2009). The interviews were conducted virtually due to the pandemic, as the researcher is based in HK and with travel restrictions at the time. At the start of each interview, the researcher sought permission to record the meetings which were willingly provided by all except one participant where the researcher made notes and recorded part of the interview as agreed with the participant. The recordings were done in MS teams and using the iPhone recording function as a backup measure.

The iPhone was used as the researcher had an issue with one of the recordings in the early interviews where the MS Teams showed the meeting getting recorded, but the meeting did not get entirely recorded.

Regarding the transcription of all the interviews, the researcher used the help of a software called 'Otter' which was recommended by Aston university. This task is not straightforward given that people rarely speak in "neat, distinct sentences" (Kvale & Brinkmann, 2009). The researcher went through each recording several times to make the amendments needed to the transcriptions to ensure the entire interview was transcribed correctly.

4.7 Data Collection from Semi-Structured Interviews

The semi-structured interview approach uses a prepared interview protocol (Bryman, 2016), where a series of questions are framed, but in no specific order. Additional questions can also be asked if the interviewer feels the need as the interview progresses (Smith, 2019). This form of interview provides a good balance between ensuring there is sufficient data collected to explore the issues and yet avoid extraneous matters which are outside the scope of the research project. This is important given the limited time the researcher could manage with ASAPs, NASAPs, and stakeholders as professionals in the management category and hence with time constraints. Sufficient flexibility in using this form was very important for the researcher to obtain rich data through the interviews. Structured interviews can provide thin data, and this can pose major challenges for the use of an interpretive approach. Structured interviews being too rigid can narrow down the indefinite interpretations to pre-determined scales (Cassell & Symon, 2004). The key decisions involved are discussed below.

The interviews were conducted with research participants from India as the researcher was keen to understand SERA practice in an emerging economy that has a heterogeneous environment with a cultural and religious plurality (Cordery et al., 2022). The research participants were based in different parts of India and using the notions of ANT, these participants were varied actors in the SERA network. They were all professionally qualified and at a management level and well informed about SER and SERA. The interviews were conducted in the thick of Covid times and hence were done virtually. The participants were supportive, provided rich data, and did most of the talking all through and even permitted recordings of the interview to enable me to have eye contact and understand their behaviour too. The varied type of actors and the review of documents as non-

human actants before and after the interviews along with discussing the non-human actants with the research participants supported the researcher to trace the relationships of the network and understand how the negotiations between actants take place for boundary objects. The researcher used the constructs of the translation process, non-human actants, and boundary objects to understand in-depth how the reassembling of the social happens to ensure a complete analysis is done of the relationships of the associations and networks (Briers & Chua, 2001; Latour, 2005). With cultural and religious plurality existing in India, the researcher considered ANT as the appropriate theoretical framework to give a unique and new perspective to understanding materiality assessment, stakeholder inclusiveness, and qualification of assurors and making significant empirical and practical contributions.

4.7.1 Number of Interviews

The two key issues to consider are 'sufficiency' and 'saturation' in terms of how many participants and how much data is needed from semi-structured interviews (Seidman, 2013). Sufficiency relates to whether there are sufficient interviewees to gather the required variation of data in an objective sampling size. The researcher using the epistemology and notions of ANT has taken this into consideration and selected a wide spectrum of research participants comprising of ASAPs, NASAPs, NGOs, regulators, reporting companies, and relevant non-human actants together. The sufficiency criteria have thus been met in this research study. Saturation is ensuring the right amount of data is collected and any more interviews would not provide further new empirical evidence. In this study, using the notions of ANT and including both types of assurors and different categories of stakeholders besides management of reporting companies, the researcher conducted 14 semi-structured interviews, though 16 were planned. In addition, the review of non-human actants along with discussing these with the human actors at the interviews enabled rich data collection. This brought about the satisfaction that this study reached the needed saturation. It will always be the case where individual experiences will never completely overlap, but the data collected needs to give the comfort of saturation to the researcher. The researcher in selecting the varied types of participants who are based in India obtained responses even relating to global practices as one of the NGOs was working with a reporting company based in the US and Europe. The researcher took the decision to extend the selection of interviewees to include the reporting company based in those jurisdictions. The researcher could conclude that saturation had been obtained. The interviewee list and the details are provided below in table 4.2.

Table 4. 2: Details of Research Participants

Number	Type of Interviewee	Interviewee's Position	Interview Location	Interview Date	Duration	Code Name
1	Big 4 - ASAP	Partner	Mumbai, India	5 Jan 2021	60 minutes	X
2	Big 4- ASAP	Partner	Mumbai, India	1 Feb 2021	60 minutes	X
3	Big 4 - ASAP	Partner	Mumbai, India	17 Apr 2021	60 minutes	C & D
4	NASAP	Responsible Manager	Delhi, India	29 Apr 2021	60 minutes	E
5	NASAP – NGO	Manager	Delhi, India	19 July 2021	60 minutes	J
6	NASAP	Manager	Delhi, India	3 Mar 2021	Did not show up	K
7	Regulator	Senior Manager	Delhi, India	15 Jan 2021	60 minutes	Y
8	Regulator	Senior Manager	Delhi, India	17 Jan 2021	60 minutes	Y
9	Regulator	Senior Manager	Delhi, India	29 Jan 2021	60 minutes	Y
10	Regulator	Senior Manager	Delhi, India	10 April 2021	60 minutes	B
11	Regulator	Senior Manager	Delhi, India	4 May 2021	Email	I
12	NGO	Manager	Mumbai	11 Mar 2021	60 minutes	Z
13	NGO	Manager	Delhi	29 Apr 2021	60 minutes	F
14	Reporting Company	Sustainability Head	Mumbai	1 June 2021	75 minutes	H
15	Reporting Company	Sustainability Head	Mumbai	28 May 2021	75 minutes	G
16	Reporting Company	Deputy Chief Sustainability Officer	USA & Belgium	29 Mar 2021	75 minutes	A

4.7.2 Interview Conduct and Guide Design

There are several guiding principles to develop the design of the interview guide. Firstly, it is the epistemology that is derived from the ontology that determines the mode and style of inquiry. Using constructivist epistemology which is derived from the duality of structure-agency ontology, more open-ended and exploratory questions are used than in a positivist scenario as discussed above. In addition, the interpretive hermeneutic and phenomenological approach supports the need for questions that reveal the experiences of the research participants (assurors and stakeholders) rather than bring out general concepts about SERA practice. Secondly, for each of the types of interviewees (stakeholders), slightly different forms of interview protocols were used to cover appropriate questions considering their different roles and to apply theory (Kvale & Brinkmann, 2009). Most importantly, using interpretive epistemology, there is a need for prompts and probes to follow up on emergent interesting issues which cannot be the case in structured interviews.

The objectives of an interview guide are only to support the flow of the interview and support participants speaking at length to reveal their experiences. There are two important aspects to consider when commencing interviews as brought out by Smith et al (2009). Firstly, the researcher needs to emphasise to the participants the importance of their participation and of the experiences they share. Secondly, the participants need to feel they are the central focus, with the researcher speaking minimally and listening attentively while providing the participants with sufficient time to share their ideas. The questions in the interview guide should include both thematic and dynamic criteria. Some questions are more to develop relationships (dynamic) and the others should be to obtain knowledge to answer the research questions (thematic) (Kvale & Brinkmann, 2009). The questions too were initially based on the theoretical language but then needed transformation into simple layman's language that participants are comfortable with (Kvale & Brinkmann, 2009). Appendix 3 sets out the interview guidelines for each interview. The researcher concluded the interview with an open-ended question asking the participants if they would like to share any further inputs (Seidman, 2006).

Finally, after each interview, the researcher prepared a reflection on the experience, the demeanor of participants, any interruptions or recording issues, and whether anything unusual was revealed during the interview. These details were helpful in the analysis stage. An example is shown in Appendix 4.

4.8 Embedding Analysis in Data Collection

Qualitative research with semi-structured interviews can result in collecting voluminous data and in a narrative format without any structure. This can be overwhelming and cannot be avoided. Hence it is important to implement practical strategies at the design stage to make subsequent analysis manageable. Bearing in mind how the analysis will be performed after data collection can facilitate the *“preparation of the interview guide, the interview process and the transcription of the interviews”* (Brinkmann and Kvale, 2009 p.216). This helped to consider analysis when planning the interview guide. It is crucial to use a flexible and clear interview guide embedding theoretical concepts to make subsequent transcription and coding easier and more manageable. The transcripts were carefully prepared by the researcher using the software ‘Otter’ and the researcher had to make changes after carefully listening to the recordings to ensure the transcriptions were complete and accurate.

4.9 Data Analysis

Analysing qualitative data is more challenging as there are fewer established processes in comparison to quantitative data (Bryman, 2016). The interpretive philosophy which is the epistemology of this study guided the analysis to give adequate meaning to the participants' experiences. The analysis of the transcripts was done immediately to ensure the thoughts and findings were fresh in the mind and to make changes if needed in subsequent interviews (Coffey & Atkinson, 1996).

The techniques involved in analysing the data collected from semi-structured interviews are firstly the recorded interviews were uploaded into Otter software and transcripts were generated. Secondly, these transcripts were again verified by listening to the recordings a few times to ensure everything was captured adequately. Each interview transcript took a long time for verification with the recordings and was done solely by the researcher. This gave the researcher a deeper understanding of the issues brought out in the interviews and at the same time to grasp the critical issues in SERA practice. Thirdly, the researcher then uploaded each transcript into NVivo, para by para, and generated labels/codes to then form the themes in chapters 5 & 6. This coding was based on the theory constructs, the research questions, and the literature review. This was done for each interview. The coding was revised if needed according to the emerging issues (add, drop, or merge).

Fourthly, the coding process was repetitive and iterative with each piece of empirical evidence being revisited to ensure that emerging empirical themes are accounted for and codified correctly and in accordance with the conceptual frameworks. The researcher considered ASAPs and NASAPs as the focus point for the analysis and based on the constructs of the theory and the research questions, the themes emerged to answer the research questions with rich findings.

The data analysis and the emerging analytical themes focus on three key aspects: actors or actants, relationships, and activities. ANT brings out the unique characteristic of human societies, where the co-presence of non-humans is vital. Latour (1991) asserts this uniqueness as '*we are never faced with objects or social relations; we are faced with chains which are associations of humans (H) and non-humans (NH)*' (Latour, 1991, p.110). However, there is no essentializing of either humans or non-humans in the association, instead, both are relational and function as networks. They cannot function on their own but emerge as the effects of networks. Law (1994) also elaborates on the network notion with an example where if a manager is stripped of his technologies, whether the important ones like mobile phone, computer, printer, or data projector or even the less important ones like the desk, lamp or chair, he will not be a manager, but someone else (Michael, 2017). Using this theory, the focus is less on the tracing of any actor by assuming that the actor possesses more power, but rather on tracing all relations and how the relations are remade or reordered and reconfigured as a network of human and non-human actants. Hence the agency is a relational effect and an actant can be defined as a relational field that is an outcome of an array of relations (Barter & Bebbington, 2013). If the researcher is not able to explain the structure of the relationships or patterns of relationships, this indicates the tracing and the analysis is not complete and the researcher has missed some aspect (Latour, 2005).

As time is limited and is specific about SERA, this thesis considered the ASAPs and NASAPs as main translators and considered the relationships from the assurors' perspective. Hence, the study looked at the relationship between assurors and other actants along with boundary objects to understand the need for negotiations to be made. The study focused on issues that arose from understanding these relationships and from how negotiations are made. The study tries to address who is involved in SERA practice (materiality decision making), how the actants interact and how are relationships formed, and how the reassembling of the social happens. These empirical themes are then used to develop the analytical themes which are used to unpack the findings and the most critical ones are highlighted in the discussion chapter 7.

The transcripts were analysed using three sub-processes: data reduction, data display, and drawing and verifying conclusions (Miles et al., 2018; O'Dwyer, 2004).

4.9.1 Data Reduction

As stated above, the researcher uploaded the recordings for transcription using the paid software 'Otter' which was recommended by Aston Business School. As the interviews were with participants based in India, the transcription was not completely accurate due to their accents. The researcher heard each recording in detail to make amendments as needed in the transcriptions and to confirm the participants' interpretations were correctly transcribed. This was a time-consuming and arduous experience, but it helped the researcher grasp the contents of the interviews in a more intense manner. The transcriptions were then uploaded into the qualitative analysis software NVivo12 provided by Aston Business School. The descriptive coding process then commenced obtaining data reduction. Coding is an iterative process where the narrative data is divided into sentences or paragraphs, for which labels are attached, followed by groupings to become themes (Braun & Clarke, 2006; Cresswell et al., 2011; Creswell & Clark, 2017). This coding was based on the theoretical framework and the research questions. The codings were revised as needed to take care of emergent issues like add, drop, or merge.

4.9.2 Data Display

Data display is vital for qualitative analysis along with coding to complete the data analysis. Organizing the excerpts from the transcripts which are coded to get the level of rigour needed is critical in the data analysis (Maxwell, 2012). The various analysis functions in NVivo 12 support this in the form of coding strips and mind maps.

4.9.3 Drawing and Verifying Conclusions

Conclusions are made through the data collection process and verification is an ongoing process with extensive analysis of original transcripts and a review of documents as non-human actants. In this research study, the data analysis and the emerging themes lay emphasis on three key aspects: actors, relationships, and activities. The network of relationships includes human and non-human actants and these relationships are intermeshed where an actor is a network and a network is an actor (Latour, 2011, p.100; Michael 2017). Human or non-human actants can be chosen as the

focal point to start the analysis (Law, 2006). This study chose ASAPs and NASAPs as the focal point to start the analysis as the researcher has considered the assurors as the main translators to answer the research questions. Using the notions of ANT, all actants have a role and must be enrolled to enhance the credibility of SERA practice and SERA statements. Hence the analysis extends to all the actants including non-human actants to understand their interpretations and experiences and then the researcher uses the theoretical framework to make further interpretations.

The final stage of the analysis involves 'going back and forth to the data and coding to unpack critical themes using theoretical reference points. Throughout the process, the theoretical framework and extant literature formed part of the analysis.

4.10 Ethical Issues

In a research study, ethical issues are an important consideration and especially with the involvement of people as research participants. Ethical considerations are a confirmation of the overall integrity of the research project and ensuring the research process is not undermining the value of the research study (Bell et al., 2022). With semi-structured interviews being the main source of data, it is crucial to ensure ethical issues are taken into account when conducting interviews with research participants. Given that ethics is important in research, there are codes of ethics formulated by professional bodies for business and management research. These ethical principles are informed consent, anonymity, confidentiality, deception, and harm to participants (Kvale & Brinkmann, 2009).

4.10.1 Informed Consent

It is important in a research study to ensure participants are adequately informed so they can participate voluntarily and make well-informed decisions. Bryman (2016) brings out that all interviewees must give written consent. This research study followed the ethics principles developed by the university's research ethics committee. There were two forms to be given to research participants before the interviews were conducted. The first document is the participant information sheet which was sent via email to each participant stating the objectives of the research, describing the critical aspects of the study, and the purpose and procedures of the interviews. The second document is the consent form which was sent to obtain a formal acceptance to participate and to permit the recording of the interviews.

This consent gives assurance to participants that they will participate voluntarily without any pressure, and they will give relevant inputs to the study. It also allows participants to reject the invitation to participate or decide how much input they will provide or even not answer any of the questions. This also provides safety to the participants when discussing issues, they are not comfortable with. Assuring the participants of confidentiality and anonymity can improve the probability of receiving consent.

4.10.2 Confidentiality and Anonymity

Confidentiality is not disclosing the identity of participants and not linking their identities to any of the data. In this study, confidentiality and anonymity are ensured by not disclosing the identity details of participants like names, organization names, and addresses (Neuman & Rossman, 2006). The researcher took great care to maintain confidentiality and anonymity when coding and performing the analysis so that no linkages could be made to the interviewees. The researcher also ensured the audio recordings and transcripts were kept confidential and safe by utilising appropriate password protection and securely stored on the researcher's laptop. All these practices were confirmed to the participants in the Participant Information Sheet prior to seeking their consent. The researcher additionally reassured the participants during the interview to develop a strong rapport and gain their trust, so they feel comfortable giving their input.

4.10.3 Harm to Participants

This is about causing no harm or discomfort to the interviewees. According to Neuman (2006), research can cause harm to participants in several ways physical, legal, psychological, and professional. The semi-structured interviews in this study were only open-ended questions where no possibility of physical harm was possible. Legal harm too was not a possibility as this study was not focusing on illegal practices. Psychological harm was also not of concern in this study as the participants were well informed of the study and even the interview questions were sent in advance to participants as per their request. There was no stress of any form caused to participants and they could withdraw or refuse to answer certain questions if they choose to. Professional harm is any harm caused to their career which is not a concern in this study as participants were provided with formal consent forms for their signatures and documentation. Confidentiality and anonymity were also assured to safeguard against any professional harm.

4.11 Conclusion

This chapter laid out the key aspects of how this research study is conducted. The philosophy driving this study namely the ontology, epistemology, methodology, and methods of data collection are elaborated on in this chapter.

Using ANT ontology, this study adopted a dual structure-agency ontology and a constructivist epistemology, where knowledge is co-constructed. This implies that the experiences and understanding of SERA materiality, stakeholder inclusiveness, and other material issues in SERA practice are co-constructed by assurors, stakeholders, and non-human actants in the network together with the researcher. In terms of epistemology, this study used the interpretive approach which was aligned with the theory where the experiences of human actors and the review of non-human actants were considered in conjunction to answer the research questions. The approach included the hermeneutics circle as a part of the interpretive approach which is consistent with the ANT theoretical framework.

In terms of methodology, the field study approach was used. Using the notions of ANT, semi-structured interviews were conducted with a wide array of stakeholders to collect interpretive data, and using theory, the researcher analysed the data and made interpretations.

This chapter also included the reflexivity role of the researcher to bring out the challenges and opportunities experienced in the research journey. The pandemic challenges were also highlighted and reflected upon. The researcher's philosophical approach and reflexivity role brought out the research design adopted to collect and analyse the data discussed in detail in this chapter. Chapters 1 to 4 laid out the pathway to undertake the empirical analysis in chapters 5 and 6. These findings will then be unpacked in chapter 7.

CHAPTER 5 FINDINGS I: STAKEHOLDER ENGAGEMENT IN SERA PROCESS

5.1 Introduction

The data collection and analysis methodology have been reviewed in chapter 4. Chapters 5 and 6 illustrate this study's significant empirical findings and themes. These two chapters are developed by embedding the four stages or moments of the translation process and the notion of boundary objects brought out in chapter 3, Table 3.1 to answer the two primary research questions:

- *How can organisations (management), assurers, and standard setters have stakeholder-inclusive processes and mechanisms in place to foster the true and fair view of SER and SERA?*
- *How will materiality, completeness, and responsiveness to stakeholders in SERA enhance the credibility of sustainability reporting?*

In chapter 5, the researcher embeds the first two stages of the translation process (problematization and interessement) to unpack significant findings to answer the first research question as stated above. This chapter is divided into seven sections. Section 5.1 is an introduction. Section 5.2 brings out how problematisation and interessement – the first two stages of the translation process are applied to unpack empirical findings to answer the first research question as stated above. Section 5.3 focuses on stakeholder engagement in the SERA process. Section 5.4 focuses on the scope of assurance and the decision-making process. Section 5.5 explores how investors and stakeholders are demanding the need for SERA. Section 5.6 is the summary and conclusion.

5.2 Problematisation and Interessement

Problematisation and Interessement moments of translation (Callon, 1986; Charika et al., 2019; Wæraas & Nielsen, 2016) are operationalised here to unpack the findings from the data collected through semi-structured interviews to understand in depth, the extent of stakeholder engagement in the SERA process and in making materiality decisions. Problematisation being the first stage in the translation process, the researcher traces how the accounting sustainability assurance providers and non-accounting sustainability assurance providers as main translators are engaging with stakeholders (reporting organisations, regulatory bodies, and NGOs) and non-human actants (SERA standards, reporting guidelines, technology, SERA statements, management report, internal assurance report) as other main actants in the network. This engagement is needed for ASAPs and NASAPs to negotiate with other main actants and establish the OPP (Callon, 1986; Troshani et al.,

2019). The negotiations involve ASAPs and NASAPs communicating the significance of SERA to the actants and how they are professionally qualified to represent the other actants in performing SERA. It is vital at this stage for ASAPs and NASAPs to gain the confidence of other actants in accepting them as their representative, and how they wield power from the singular collective to make decisions on the scope of assurance, materiality, type or level of assurance, assurance standards to be used and the addressing of SERA statements (Callon, 1986; Latour & Strum, 1986; Michael, 2017).

Interessement, the second stage of the translation process is where the researcher makes an attempt to understand how the ASAPs and NASAPs as translators give identity to themselves and to other main actants in the network with a focus on the assurers representing the other actants and enrolling them in the third stage (Callon, 1986; Troshani et al., 2019). This is possible only when the ASAPs and NASAPs gain the confidence of the actants that they have the potential to enhance the credibility of assurance statements and can meet stakeholder needs. The researcher traces the engagements and connections between the assurers and other actants without making any assumptions in prioritising actants and that non-human actants are also considered as part of the collective (Barter & Bebbington, 2013). The network has to be a 'flat' structure with no micro, meso, or macro layers, although flexibility and adjustments must be made (Justesen & Mouritsen, 2011; Latour, 2005; Michael, 2017). This is because the ANT ontology is based on the 'duality of structure and agency' which are relational and the epistemology used is constructivism as discussed earlier in chapter 3. The theory guides the researcher to trace all relations between the actants in the SERA network with the assurers being considered the translators. The researcher using this moment of translation proceeds to trace the not-so-obvious actants (supply chain actants, technology) and how these are considered by assurers and whether are they given identities. This will also act as a validity check on materiality decisions in SERA which is laid out in detail in chapter 6. The notion of the 'translation process' and the four moments of translation from ANT used in this study have contributed to the researcher using qualitative research and an interpretive approach as the research design to answer the research questions.

Prior literature on sustainability assurance using other social theories; legitimacy, institutional, agency, and stakeholder theories, in most cases used more secondary evidence in the form of downloaded SERA statements or primary evidence like surveys to understand issues in the SERA practice (Ball et al., 2000; Darnall et al., 2009; Junior et al., 2014). The ontologies supporting prior research were objectivism or subjectivism and hence the epistemology used was social

constructivism. Prior research used mostly quantitative methods to bring out the findings and contributions. There is very limited research done using primary evidence to explore stakeholders' inclusiveness where ASAPs and NASAPs were interviewed (Edgley et al., 2015; Edgley et al., 2010). This study extended the prior literature on stakeholder inclusiveness in SERA practice using the ANT lens and engaged with a wide array of stakeholders along with a review of non-human actants and also discussed these non-human actants with the stakeholders. This leads to triangulation of the empirical evidence collected in the form of a review of non-human actants before the interviews followed by semi-structured interviews with ASAPs and NASAPs, and other stakeholders and then verifying the data with the documents again. This enhances the validation of the interpretations made by the research participants and the researcher.

5.3 Stakeholder Engagement in the SERA Process

This is the first primary research question in this study, to understand the extent of stakeholder engagement in the SERA process, in making materiality decisions, in preparing SER reports, and in developing the assurance standards. Prior research confirms that direct stakeholder inclusiveness especially related to external stakeholders in SERA practice is beginning to emerge to a small extent although indirect inclusiveness has been in existence globally in the SERA practice (Edgley et al., 2010; Manetti & Toccafondi, 2012). This direct and indirect inclusiveness by the assesor has been more in relation to suppliers and no other key external stakeholders like customers, NGOs, regulators, and governments. Indirect engagement is where the assesor performs desk verification in the form of reviewing media reports, internal controls, policies, and reports of stakeholder inclusiveness by the reporting company. Direct engagement is where the assesor engages with stakeholders through phone conversations, personal meetings, emails, or surveys. Using the notion of the translation process from ANT in this study, with its dual objectivism-subjectivism ontology and constructivism as the epistemology, the assesor (main translator) is considered as the voice of the internal and external stakeholders (other main actors), creating an OPP to perform the assurance service. The assesor in representing other main actants must have a dialogic engagement with all stakeholders and consider the non-human actants like technology, SERA standards, SER guidelines, and others to create this OPP. The objective of SERA is to ensure management makes the changes needed in non-financial performance and thereby minimise greenwashing or management capture in both SER and SERA practices.

From the interviews conducted with a *regulator*, the empirical evidence suggest stakeholder inclusiveness *depends on the maturity* of the company preparing SER as the level of assurance is decided accordingly. For companies in the initial years of preparing SER, the assurers provide a limited/moderate level of assurance and verify stakeholder engagement to a limited extent (verifying internal controls). But for matured companies (3 or 5 years of reporting), the assurers provide a reasonable/high level of assurance if requested by the client. Hence, the assessor considers stakeholder engagement to a larger extent. However, this is *mostly through indirect engagement* in reviewing media reports, stakeholder engagement policies, internal control systems, and stakeholder inclusiveness reports. Worldwide, it takes companies preparing SER, three years to reach its maturity stage where policies and practices get aligned from the point of view of data collection, implementation, engaging with stakeholders, considering stakeholder responsiveness, and sharing the results of the interaction.

However, the assurers when interviewed, revealed that in some cases, both the ASAPs and the NASAPs engage with the stakeholders (suppliers, community, NGOs, and employees) *directly* in *both limited and reasonable assurance engagements*. This is indicated by research participant X - partner of the Big Four accounting firm as below:

“Many times, we do stakeholder engagement as a part of the assurance process. We also interact with certain stakeholder groups. So, for example, today, you know, I would give you an example we interact with internal employees and management also. We also interact with community members if we feel that need, if they have had some issues and the company has taken into consideration some initiatives or not, then we do interact with them to find out the impact created”.

This stakeholder engagement is further confirmed by a NASAP – E. The decision to engage or not to engage with key stakeholders is made by the assessor *but with the permission of the reporting company*. The assessor confirmed that even though the consent of the reporting company is considered for engagement, the need to engage with stakeholders *is not compromised* when needed.

Using the *notion of non-human actants* in the translation process, which are considered important and must be considered in the network as the collective (Latour, 2005), the researcher in reviewing the assurance standards asserts that *ISAE 3000³ is not very clear* about the need for stakeholder

³ <https://www.iaasb.org/publications/international-standard-assurance-engagements-isaie-3000-revised-assurance-engagements-other-audits-or-0>

engagement. AA1000SES⁴ and AA1000APS⁵ have specific considerations for stakeholder engagement and accountability principles. AA1000SES specifies guidelines on engagement with internal and external stakeholders. However, from the interviews conducted, a *regulator - Y* brought out that the *reporting companies are also not familiar* with the assurance standards when preparing the SER reports. This is *not only found in India but worldwide* as stated below:

“So, those companies, because another problem is largely in India and in other parts of the world which I have seen, which I always say, that the challenge for the assurator is that the company has never been exposed to AA1000AS. So, if it is a financial auditor, the company knows that it is getting audited according to relevant auditing standards. Now the worst part when we started assurance, was that the companies are not aware, first of all, that you see that now there are three standards that are applicable. The disclosure is followed as per GRI, the internal management framework the organization is following ISO26000, whereas the assurance is going to be done on a third standard which is ISAE3000 or AA1000AS”.

The researcher using the interpretive qualitative approach further highlights that the notion of the ‘translation process’ makes it crucial for the assurator as the translator to make his identity known to the actants and to give them an understanding of their identities in the interessement stage as discussed in section 5.2 above. It is crucial for the assurers to engage with stakeholders to understand their needs. It is also important for the assurers to *explain the SERA standards to the reporting companies* at the planning stage.

The researcher highlights that there is a lack of adequate engagement or intermeshing of actants in the SERA network, assurers not problematizing SERA adequately to reporting companies and to other stakeholders. There is a need for assurers to guide reporting companies to *integrate* the assurance standards with the reporting standards (GRI) and the internal management framework like ISO 26000 or other frameworks used by reporting companies at the planning stage. In doing this, the assurers as translators will reassemble the association of actants if needed as stated by Latour (2005). The researcher using ANT and its ontology and epistemology as explained in chapter 4 above, traced the connections in the network and the need for reordering the assemblage to bring down the risk of lack of stakeholder engagement in the SERA process. This is elaborated by unpacking the issues of assurers not engaging adequately with stakeholders in the SERA process, lack of guidance to reporting companies on the understanding of SERA standards, and the need to integrate these standards with reporting guidelines and frameworks.

⁴ <https://www.accountability.org/standards/>

⁵ <https://www.accountability.org/standards/>

The lack of adequate stakeholder engagement in SER and SERA is further highlighted when regulator B, voiced out that it has been challenging for assurers in the absence of adequate stakeholder engagement, to understand how reporting companies will interface the major sustainability impacts of their non-financial performances to all stakeholders. These impacts can be positive or negative, intended or unintended, expected or realized, and short, medium, or long-term. The assurers in the interviews confirmed that it is not feasible to visit the external stakeholder sites and engage with them as it is outside the boundaries of assurance. The researcher interprets further the lack of adequate assembling, disassembling, and reassembling of assurers, stakeholders, and non-human actants (SERA standards, reporting guidelines, technology) as a singular collective is manifesting into this major issue of lack of stakeholder engagement in SER and SERA practice. ASAPs and NASAPs need to engage with external stakeholders even at the supply chain level by making phone calls or sending emails where site visits are not feasible. The researcher highlights other major issues in SERA practice due to lack of stakeholder engagement: SERA not meeting the needs of stakeholders, the need to engage with stakeholders even at the supply chain level where the material indirect impacts must be considered, SERA standards to be further developed and amended with inputs from assurers and stakeholders, the need for technology to be considered as an important part of SERA process. These are elaborated on in the sub-sections below:

5.3.1 Primary and Secondary Impacts of Sustainability and Environmental Performance must be considered by ASAPs and NASAPs

The researcher, in exploring the extent of assessor's engagement with stakeholders using the notion of the translation process from ANT where human and non-human actants are a collective (Latour, 2005; Michael, 2017), investigated how the *primary and secondary impacts* of reporting companies' sustainability performance are considered by assurers. These are material considerations in the SERA process and ASAPs and NASAPs need to be extra cautious. Both, the primary and secondary impacts need the assessor's attention at the planning stage when *materiality assessment* is being done. In most cases, the secondary impacts can only be identified when the assurers engage with stakeholders at the supply chain level, especially the *less obvious* ones. However, this is not done in SERA, especially since the secondary impacts are not investigated by the assessor or by reporting companies. The primary impacts are sometimes reported in SER, but not the secondary impacts. From the empirical evidence, one of the regulators – Y, brought out this issue of secondary impacts, which have been overlooked by assurers and by the management of reporting companies. In his experience as an internal assessor earlier, this regulator had visited the

farmers where the reporting company's windmills were located. The farmers' wives voiced out how the cattle were affected by the noise of these windmills, and this resulted in a decrease in the volume of milk produced. These issues produced a negative long-term impact on the revenue from the milk business. These indirect impacts were not reported by the sustainability officer and were neither taken up by the assurers as they did not engage with these stakeholders in the supply chain.

Using problematisation and interessement motions of the translation process and by engaging with assurers, stakeholders, and non-human actants, the researcher has got into the center of the SERA process to understand and analyse the complete connections between assurers and other main actants. This complete tracing of relational connections between actants and the interpretive approach has unpacked this major issue of lack of stakeholder engagement in the SERA process and lack of consideration of non-human actants as a collective. The researcher using the ANT lens makes a recommendation to ASAPs and NASAPs to communicate to reporting companies the need for stakeholder engagement even if it is outside the boundaries of the scope of assurance. This engagement will enable assurers to assess the primary and secondary material impacts of sustainability performance on the organization, society, stakeholders, environment, and the economy. This will result in enhancing the value of SER, SERA, and the need for assurance of sustainability and environmental reporting. Prior research has considered the issues of lack of stakeholder engagement in SERA and in materiality assessment, and other issues in SERA. They have not considered these primary and secondary sustainability performance impacts and why ASAPs and NASAPs need to consider these impacts (Channuntapipat, 2018; Edgley et al., 2015; Jones et al., 2015) to ensure completeness and responsiveness to stakeholders in the SERA process.

5.3.2 Capacity Building must be performed by ASAPs and NASAPs

Using the notion of the translation process (problematisation and interessement), capacity building is another important aspect the researcher investigated, which is related to the need for ASAPs and NASAPs to engage with stakeholders. Assurers must engage with employees located at different sites and not only with management, just like in financial auditing for inventory verification. One of the assurers – X partner of accounting Big Four confirmed they assist companies with capacity building at the planning stage. At the sites, the employees do not understand the assurance of non-financial performance. They do not understand what is expected of them in the assurance process and that SERA is not just about numbers. This puts the responsibility on the assurers to explain the

SERA process to these site employees and guide them on what they need to prepare for assurance which is called capacity building. This engagement is not always the case with all assurers when the researcher engaged with other assurers and stakeholders. This can again result in assurers not being able to identify all material issues, especially the indirect impacts which are less obvious due to the lack of relational connections between assurers and other main actants (employees at sites, technology). This means the assurers are not successful in communicating the OPP established by them to all actants. The assurer is not able to communicate and provide identities to these actants who should be part of the SERA network.

The researcher highlights this issue which is part of the bigger issue of the lack of stakeholder inclusiveness in the SERA process. The researcher used the notions of ANT to trace the complete relationships of the SERA network and how the assemblage needs reordering and adding of actants called the *reassembling of the social*. This resulted in the researcher highlighting this issue of lack of capacity building by ASAPs and NASAPs because of a lack of engagement with stakeholders. The mainstream literature highlighted the issue of lack of stakeholder inclusiveness in the SERA process resulting in management and professional capture. This study extends further to understand in depth the relationships in the SERA network of both human and nonhuman actants and hence could highlight the issues leading to a lack of stakeholder inclusiveness.

5.3.3 Qualifications of Assurers need Standardisation and Monitoring

This sub-section is relating to the exploratory research on the qualifications of ASAPs and NASAPs as the main translators in SERA practice. This also involves the researcher reviewing SERA standards (non-human actant) to get an understanding of the qualifications of ASAPs and NASAPs and how are these monitored. Using the ANT lens, the SERA network is a singular collective where ASAPs and NASAPs must engage with other actants to perform SERA and represent them. As assurers are the translators in the network, the researcher considers the qualifications of assurers significant and hence is taken up in this study. Using the first two motions of translation, problematization, and identity construction, the assurers as translators must engage with stakeholders to emphasise the need for assurance and give identities to the actants and to themselves. The assurer creates the OPP for other actants by communicating how the assurer will perform the assurance and represent the other actants and issue the assurance statement. To create this OPP where other actants gain confidence in the assurer, the qualifications become critical and are investigated by the researcher. One of the assurers – X partner of a Big Four

accounting firm asserts the need to ensure the qualifications of ASAPs and NASAPs are appropriate, just like in financial auditing where the financial auditors must meet the qualification criteria stated in the auditing standards. This research participant confirmed how in SERA, the ASAPs and the NASAPs are not looking at the verification of numbers, but the verification of controls. These controls for non-financial reporting are more complex and need the technical expertise of the assurers which are varied due to the nature of reporting. This expertise includes environmental management, safety, human rights, legal requirements from the pollution perspective, office space perspective, and other such requirements. This makes the qualifications of assurers very critical for creating the OPP and for establishing identities for assurers, stakeholders, and non-human actants.

From the empirical evidence collected, the researcher unpacks the major issue of ASAPs and NASAPs not being adequately qualified. Though the qualifications have been stated in the assurance standards ISAE 3000 and AA1000, the assurers do not comply with these criteria. With SERA being more verification of controls and not of numbers, it is important for ASAPs and NASAPs to have the technical and legal expertise of the varied sustainability practices. This is confirmed by X- partner of Big Four accounting firm as assurer as below:

“But at the same time, there must be, you know, like today, to be very honest, even CS (Company Secretary) do the assurance. Now with due respect to them, you know, how much would they understand if the pollutants are beyond the limit?”

These material issues of lack of adequate qualifications can impact assurers in successfully creating the OPP, giving identities to actants, and gaining their support. Considering that sustainability (non-financial) reporting is not number based, but qualitative and very technical, it is critical just like for financial reporting auditors who are bound by generally accepted auditing standards, the sustainability assurers should also be bound by generally accepted standards with qualifications criteria being clearly stated.

One of the regulators – Y also affirms, why assurers' qualifications are critical with sustainability performance being varied and broad and are not number based. The assurer needs expertise based on the type of reporting company which could be a cement company, a refinery company, a service sector, or any other sector. The assurers' expertise must grasp what sustainability means to each of these different sectors; hence, qualifications are very critical. X- Partner of Big Four accounting firm recommends standardization of assurers qualification which is stated as:

“So that is where we feel that a qualification criterion should be coming at a universal level for assurance as well. You know, well, the technical expertise again, becomes very, very important”.

In India, there are discussions to standardise the qualifications of the assessor more comprehensively, and the regulatory body (Ministry of Corporate Affairs - MCA) in India is progressively working to produce a standard. X-Partner of Big Four accounting assessor confirms as below:

“So, in India, there are discussions of the qualifications of an assurance provider, and this will be stated soon. India (MCA) is coming up with a standard hopefully which should be released in the month of March or April 2021. So, I mean, they are quite progressive. India is becoming quite progressive when it comes to this.”

This is a significant advancement in India, an emerging economy that is progressing in non-financial reporting and assurance with the regulatory body working to enhance its credibility.

The researcher further confirms the need for ASAPs and NASAPs to be adequately qualified to make SERA more credible and to obtain the objectives of getting the SER reports assured. The researcher using the notion of non-human actants is of the opinion that the assurance standards must be very specific about the qualifications of assessors and how should these be monitored as part of quality control review.

In terms of ISAE 3000, clause 3, clause 4, clause 69(i) and (j) state the qualification of the assessor as follows “(ISAE 3000 Revised - IAASB Final Pronouncement 2013, pgs. 5 and 21)”:

Clause 3. This ISAE is premised on the basis that:

(a) The members of the engagement team and the engagement quality control reviewer (for those engagements where one has been appointed) are subject to Parts A and B of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (IESBA Code) related to assurance engagements, or other professional requirements, or requirements in law or regulation, that are at least as demanding; and

(b) The practitioner who is performing the engagement is a member of a firm that is subject to ISQC1 or other professional requirements, or requirements in law or regulation, regarding the firm’s responsibility for its system of quality control, that is at least as demanding as ISQC1.

Clause 4. Quality control (ISQC1) within firms that perform assurance engagements, and compliance with ethical principles, including independence requirements, are widely recognized as being in the public interest and an integral part of high-quality assurance engagements. Professional accountants in public practice will be familiar with such requirements. Suppose a competent practitioner other than a professional accountant in public practice chooses to represent compliance with this or other ISAEs. In that case, it is important to recognize that this ISAE includes requirements that reflect the premise in the preceding paragraph.

Clause 69. The assurance report shall include, at a minimum, the following basic elements:

(i) A statement that the firm of which the practitioner is a member applies ISQC1, or other professional requirements, or requirements in law or regulation, that are at least as demanding as ISQC1. If the practitioner is not a professional accountant, the statement shall identify the professional requirements, or requirements in law or regulation that are at least as demanding as ISQC 1.

(j) A statement that the practitioner complies with the independence and other ethical requirements of the IESBA Code, or other professional requirements, or requirements imposed by law or regulation that are at least as demanding as Parts A and B of the IESBA Code related to assurance engagements. Suppose the practitioner is not a professional accountant. In that case, the statement shall identify the professional requirements, or requirements imposed by law or regulation that are at least as demanding as Parts A and B of the IESBA Code related to assurance engagements. (Ref: Para. A172).

Considering the above-stated qualifications in ISAE 3000, from the interviews conducted with assurers from Big Four accounting firms, other stakeholders, and review of the standards, the research findings are laid out as:

1. The assurance teams in some accounting firms have professionally qualified chartered accountants as the signing partner and as team members from the audit and assurance business unit. In addition, the assurance teams also use subject matter experts from the firm's different business units like the consulting, advisory, and risk advisory to assist them in verifying the SER or Integrated reports.
2. However, to contradict the above findings, as stated in point 1., in some accounting firms, the signing partner and the team members are not professionally qualified accountants and

are from the advisory or consultancy services business units rather than the accounting business units. They are a mixed team of people with social, forestry, environmental, and human rights backgrounds. These specialists undergo the GRS (Global Recycled Standard) certification training and in-house training. GRS is an international, voluntary standard that sets requirements for third-party certification of recycled content, chain of custody, social and environmental practices, and chemical restrictions. These non-accounting qualified assurers including the signing partner as stated are not eligible to use ISAE3000 to conduct assurance even though the accounting firm employs them. This is because they operate from the advisory /consultancy business units and are not from the accounting business unit. Hence, these assurers are not permitted to issue SERA statements based on ISAE 3000. This is confirmed by B – a regulator as below:

“So, if I say somebody who is not a chartered accountant, and if he or she wants to issue an audit statement based on ISAE3000, obviously the first thing is: he is not a professional accountant. Second thing, in that case, that person must issue a particular statement that will mention the professional requirements or requirements in law or regulation which apply there at least as demanding as ISQC1. Same thing if I go based on clause no. j, it will be as demanding as IESBA Code of Ethics. Incidentally in India, there is no such professional requirement defined for sustainability practitioners. And neither are there any sort of quality control standards that are defined for assurance of non-financial performance, unlike Chartered Accountants/lawyers/doctors who are defined, who are registered as personnel by the requirements of law. The sustainability practitioners in India must be registered as professionals. So, if you are not registered as a professional, how come you are using or how come you are issuing audit reports based on ISAE 3000”.

The same participant B – regulator argues that ISAE 3000 must be more specific in the qualification criteria needed to be complied with by assurers and by the assurance companies. This will help reduce the challenges involved that affect the credibility of SERA practice and enhance risk management, which are the objectives of assuring the sustainability reports. The standard is not clear that the assessor must be a qualified chartered accountant or for assurers other than qualified chartered accountants, the qualifications needed. They must meet the qualifications as per clause no.4. The regulator further explains that the accounting firm also does not meet the qualification criteria when the signing partner is from a business unit other than the auditing business unit. B – the regulator confirms this as follows:

“First, even if I speak about the firm when we speak about the members or a member firm of IFAC. So, here is where first, even the firm is not authorized to issue an audit report because there is no such regulation. There is no such professional requirement defined,

unlike the chartered accountant or the chartered accounting firms which authorizes a firm to issue or require a non-financial firm to issue audit report based on ISAE 3000”.

“Second thing is since no such firm has been registered, so obviously, no such sustainability practitioner or no such non-financial practitioner is also registered as a sustainability practitioner, by any professional body or by law or by regulation to issue audit report based on ISAE 3000”.

The regulator asserts that in India and worldwide, no professional body recognizes a non-financial firm or a non-accounting firm as well as an unqualified accountant to issue an audit report based on ISAE 3000. Also, since the firms are not accounting firms or accounting business units, obviously, these firms employ people who are not qualified accountants. Most of the audit reports have been issued by persons not qualified as accountants.

The regulator, as a research participant, also emphasized how in India, global companies invest huge amounts of money (billions of dollars) in Green Bonds through various international stock exchanges like National Stock Exchange (NSE), Singapore Stock Exchange, New York Stock Exchange, and London Stock Exchange. These Green companies need to first comply with Green Bonds Initiative Framework or Private Bonds Initiative Framework (for example the Climate Bonds Initiative Framework). The Framework assigns a panel of assurers to perform the assurance of the sustainability processes using ISAE 3000 and these assurance statements must be submitted to the market regulator in India (SEBI) after which the Green Companies can list the Green Bonds on various stock exchanges internationally. Most of the empanelled assurance firms are not IFAC firms, and the assurers are not qualified accountants or members of IFAC to conduct the assurance and issue the assurance statements. A lack of appropriate qualifications can result in very big concerns for investors where billions of dollars can be at stake. This is confirmed by B -regulator as below:

“Billions and billions of dollars of investment are being made. Now, amidst all this, where is the gap? The gap lies in the list of empanelled verifiers, they are being asked to issue an audit report based on ISAE 3000. Incidentally, you will find now as I said, clause number 3(a) and 3(b) and clause number 4 and if you see the list of verifiers, if you try to find out whether they are IFAC members or not, you will find that these are not members of IFAC apart from one or two. Even some of the Big Four are from the advisory wing. So, if you go into the website and you just find out some assurance statements, which have been released by CBI to those verifiers, you'll find that these firms are not assurance firms, and these are not IFAC firms. Neither the persons who issued the assurance reports, are not IFAC members, they are not chartered accountants. Whereas, based on this audit report, the market regulator is giving authorisation to raise green bonds. Tomorrow if these sorts of audit reports are challenged, imagine the billions and billions of dollars of investment that is

happening in this space. They will all go for a toss. It could result in being a big scam at some point in time”.

3. NASAP assesor – J, an NGO that performs assurance of sustainability/integrated reports of large public sector companies, again are experts and not qualified accountants using ISAE3000 in addition to AA1000 and ISO 26000 to conduct the assurance.

These major issues unpacked indicate the need for generalized assurance standards to guide accounting assurers, to ensure the main actors as translators can represent the other actors and issue credible SERA statements. Assurance standards as non-human actants are part of the amalgam and play a critical role in the SERA process. (Callon, 1986; Latour, 2005).

In the case of the other assurance standard AA1000AS, this is widely used by NASAPs. It is used by ASAPs in addition to them using ISAE 3000 only when the reporting companies make a request. E- a non-accounting assessor confirms NASAP's have more expertise in social, environmental, and human rights background and are experienced in ISO certification. Some of the non-accounting assurers have invested well in training and have added value to themselves in the corporate world. This expertise supports NASAPs to deal with assessments of very technical subjects like lifecycle assessment, biodiversity, and greenhouse gas emissions.

On the other hand, a regulator – B asserted that assurance firms using AA1000AS must acquire a registered license by signing an agreement with AccountAbility organisation. This license agreement indicates that the third-party assurance firm has adhered to the license requirements and that the assurers have the needed competence.⁶ AA1000AS v3 states the CSAP (Certified Sustainability Assurance Practitioner) qualification which is of three grades: Associate, Practitioner, and Lead. These qualifications make the assessor proficient and capable of understanding the AccountAbility Principles, applying the reporting and assurance practices and standards, understanding the sustainability reports, and understanding the need for stakeholder engagement. CSAP qualifications help to increase the confidence of stakeholders in the SERA practice. However, AA1000AS v3 has not emphasized the need for these qualifications; hence, only very few assurers using AA1000AS v3 have acquired CSAP. This has resulted in the assurers facing challenges in terms of gaining stakeholders' confidence. The standard has mentioned the requisite expertise and

⁶ <https://www.accountability.org/standards/>

qualification but has not specified a process for verifying the assurers' qualifications. This is further confirmed below by B-one of the regulators:

“If you see, there is barely one or two persons who have achieved CSAP. But you have so many assurers who are issuing the AA1000 assurance reports. And they are not certified to be CSAP. This is because the standard doesn't define, doesn't stipulate that one has to become a CSAP or one has to have this set of qualification criteria or experience, etc. Nothing has been defined, which means that anyone and everyone can become an assurer. And that is precisely the reason why AA1000 is probably having some quality issues. People are not having so much confidence in the quality of the assurance reports that are being issued. You definitely realize that because you will find that somebody without any sort of background in science or somebody from a Bachelor of Commerce or Bachelor of Arts background is doing an estimation of how much carbon has been released, or how much water has been recharged. So, these are the challenges.”

In addition, it was also voiced out by B- regulator that AA1000AS v3 does not make a mention of the qualification of the engagement or signing partner. While the need for the assurance firm to register with AccountAbility is stated, there are no defined rules for the signing partner. These drawbacks in the assurance standards will undermine stakeholders' confidence in the assurers as translators who are creating the OPP and establishing identities with other actors. This results in affecting the quality control of the SERA process.

The above findings articulate that both ASAPs and NASAPs are not complying with the qualifications criteria stated in the assurance standards ISAE3000 and AA1000. The assurer being the translator in the SERA process, enrolling other actants and giving them their identities, it is critical for the qualifications to be understood and adhered to, which will give confidence to other stakeholders in the network to accept the assurers' identity, their own identities and hence follow the OPP created. The researcher further highlights the need for the standard-setting bodies to engage with assurers and stakeholders and make amendments to the SERA standards where qualifications should be stated very clearly along with the criteria to monitor their qualifications.

Prior research has not considered the qualifications of assurers, though there has been research done on the types of assurers and the differences between them (Darnall et al., 2009; Perego & Kolk, 2012; Wong et al., 2016). This study is using ANT lens and the notions of translation where the assurers are the focus. And with ANT's dual ontology and constructive epistemology, where human and non-human actants are a singular collective, the researcher investigated in depth the qualifications of assurers by considering the interpretations of assurers, other stakeholders as stated in the research design and a review of the SERA standards. The researcher also discussed

the SERA standards being non-human actants with the research participants. The researcher used the interpretive approach to unpack the major issues in the qualifications of ASAPs and NASAPs which impact the validity of the SERA process, the assurers representing the other actants, and in providing credible SERA statements.

5.3.4 Independence of Assurers affecting the Credibility of SERA Statements

Both ASAPs and NASAPs, in most cases, have not adhered to the qualifications criteria, which prompted the researcher to further investigate the *independence* of assurers. With the assurers being external assurers and the main translators in the network, the researcher considered the independence of assurers important. The assurance standards (ISAE 3000 and AA1000AS) specify independence of the assurer is needed to avoid the risk of conflict of interest and is an integral part of ensuring high-quality assurance statements.

The researcher by getting onto the field and engaging with assurers, stakeholders, and non-human actants confirmed with C – Partner Big Four accounting firm assurer and D – Partner Big Four accounting firm advisory that they comply with independence. The assurance team takes advice from the advisory services because of their expertise, but it is ensured that for such clients, the advisory services team does not also prepare the sustainability/integrated reports or set the SDGs. This was also confirmed for NASAPs with an assurer - E; that they also maintain this independence and do not provide any advisory services or set SDG's. C and D – Partners of Big Four accounting firm confirm assurance and advisory services as:

“On our sustainability report, whether it is a core sustainability report or a comprehensive sustainability report, we are comfortable in terms of developing the content for our clients. In addition to that, as the assurance partner mentioned, when they receive any inquiry for ISAE 3000 based assurance that is required to be provided to a sustainability report or an integrated report. Obviously, we support them to the extent of the domain expertise in terms of reviewing the representations which have been carried out in the report that has been submitted to them for review and test purposes. So, we will review that report, we will provide them with inputs in terms of what are the areas for corrections or whether the data or the representation that has been provided in the report is traceable back to the original collection of data and so on and so forth. So, those kinds of inputs we do provide to them, but then the final decision on the assurance is taken by the assurance engagement partner and the team and they take a call of going ahead with the assurance”.

Similarly, C- partner Big four accounting firm assurer confirmed that the sustainability/integrated reporting assurance and the auditing of financial accounting statements are performed by different

business units in the accounting firms. The clients prefer using the same accounting firm for both auditing and assurance because it is more convenient for them.

A – a reporting company sustainability head confirmed the same as below:

“We use the same assesor for financial and non-financial reporting. And they need to change every five years. So next year, it's going to be a new one. And we don't want two audit teams coming with plans at different moments and increasing the auditing burden”.

ASAPs and NASAPs do not assist clients with compliance for sustainability/integrated reporting to avoid self-review risks which can affect the independence of the assesor. The assesor provide minimum guidance if needed by stating their recommendations in the management letter. This is confirmed by X – partner and assesor, Big Four accounting firm as:

“On and off, clients do come to us for some guidance on how we approach this or something like that. So, the management letter gives them a little recommendation, that this is how we should approach it. But not beyond that, not how can we implement it, not how do we monitor it, how to report on it, these are client's decisions”. (X – Partner Accounting firm)

Even though the above interpretations from stakeholders assure the independence of ASAPs and NASAPs, these empirical findings are *contradictory* to the major issue of lack of adequate qualifications for assesor as stated in sub-section 5.3.3 above. Considering the qualifications criteria are not followed by ASAPs and NASAPs, this confirms assesor's independence is also undermined and this needs to be investigated further to evaluate the impact on issuing credible SERA statements. This can be taken up by the researcher in future research.

5.4 Scope of Assurance Must be Determined by Assesor with Stakeholder Inclusiveness

Determining the *scope is a critical part* of the assurance process and it is imperative for the assesor to consider the needs of stakeholders in this process. This inclusiveness of other actants is a part of the process of creating assesor's own identity and the identities of other actants using the 'translation' notion from ANT (Callon, 1986; Troshani et al., 2019). In prior literature, where researchers analysed secondary evidence in the form of SERA statements, confirmed that *management of reporting companies* decide the scope of assurance, the outcome of the SERA process being more of *Management Capture* or *Greenwashing* (Ball et al., 2000; Casey & Grenier, 2015; Edgley et al., 2015; Edgley et al., 2010). In this study, the researcher by engaging with assesor and other actants to understand problematisation and interessement using semi-structured interviews lays out that *management is the final decision maker* of what should be the

scope of assurance. They decide the parameters of what should be verified in SERA. The assurers provide some form of guidance in identifying the scope, especially for the initial years of reporting. In the case of mature companies, management makes the decisions themselves, considering sector-specific reporting criteria, environmental policies, stakeholder needs, and the impact on the reporting company. This is confirmed by X- Partner assessor Big Four accounting firm as:

“But it is that in the initial first couple of years, as assurers, we will guide them on the scope, but then mature companies - they know what they want in the assurance and typically the scope of assurance is around the material topics which are important to stakeholders, and which have impact on the company. So, these are the two broad areas that have been taken into consideration. In addition to the sectoral disclosures, some framework which they subscribe to, the indicators around that, that is what the clients consider when deciding the scope of assurance”. (X – Partner Accounting firm)

Using the notion of ‘sociology of association’ from ANT where the social is not only human, it is crucial for ASAPs and NASAPs to consider each of the actants (human and non-human) in the SERA network to decide on the scope of assurance (Justesen & Mouritsen, 2011; Latour, 2005). Non-human actants like the assurance standards ISAE 3000 and AA1000, reporting guidelines, firm-specific frameworks, and human actors like management of companies and other stakeholders like customers, NGOs, employees, regulators, and suppliers must be considered together as an amalgam to decide on the scope of assurance. If any of these actants are left out, the assessor cannot determine the scope of assurance adequately. SERA is different from financial auditing where the objective is meeting the needs of all stakeholders and not only the needs of shareholders. The assurers as translators make the decision on behalf of all actants (Callon, 1986; Latour, 2005).

This study highlights another important aspect when deciding on the scope of assurance. When engaging with one of the regulators, the researcher is made aware of the need to consider boundaries and boundary protocols when deciding the scope of assurance. These boundaries must include the upstream and downstream organisations in the value chain which impact the reporting company in terms of their sustainability and environmental practices. The material issues in environmental and social performance are very often in the supply chain, impacting the reporting company directly. While ASAPs and NASAPs discuss the boundary protocols of reporting, the assurance is limited to the scope decided by the reporting organization and is subject to the level of assurance agreed upon. The assurers do not conduct site visits of suppliers or perform assurance on their activities as this is outside the boundaries of the current practice. In such cases, they must look at the internal controls and policies of the reporting companies with their suppliers, and the monitoring framework of the reporting company on the sustainability activities of the

upstream/down-stream organisations. It is also critical for the assurers to engage with the upstream and downstream organisations (suppliers/customers) using telephonic conversations or other forms of technology, even if they do not verify their performances to ensure there are no material issues left unidentified. Y- regulator illustrates this as:

“Most of these manufacturing companies are now only the assemblers. So, the material issues of environmental and social are in your supply chain and not in the company, per se, what we call in social auditing, a sphere of influence. So, I think that this sphere of influence from the company per se is to change to the supply chain, where the hottest spots of sustainability of your businesses are. Say, for example, I can audit a cement plant, but then I come to know that their mines are illegal. That is the most important sustainability risk. So, even if I give an assurance statement saying that this is the best cement plant in India, and they are carbon positive, and they have no social obligations and all, then, the source of their material is from illegal mining. So, that's not accepted at all. So that's what the assessor has to now look into, that assurance is something that is changing or is maturing itself as the companies are. So, the way we were assured in 1999, 2000, 2010, 2015, now there is a lot of maturity in the assurance process that must be brought in”.

The researcher elaborates further that ASAPs and NASAPs must make decisions on boundary protocols after considering the needs of all stakeholders. This will ensure material issues are identified when the assessor works with management and considers other actants. The objective of SERA is to enhance the credibility of sustainability reports by getting them assured by an independent third party, the assessor. This independence must be applied in making decisions about boundary protocols and determining the scope of assurance. These boundary protocols must extend across the value chain, and this is what is stated in the SERA standards. The notions of ‘network’ and ‘reassembling the social’ from ANT prompted the researcher to trace all actants and the connections to identify these major issues and to make contributions to making SERA process more credible. This is confirmed by one of the regulators - Y:

“So, if I'm auditing X company, my boundaries are the physical locations of X company's plants. But then now, the assurance will go beyond the physical premises. So, it sits across the value chain because that's what the standard is saying. Some of the indicators are both upstream and downstream. So, I need an adequate sample size. So, I cannot say I will go and audit your suppliers, because that is outside the boundary. But in my boundary protocol, I will say that I want to see your process that how you build up sustainability in your supply chain. And, on the day of assurance, I would like to talk to four or five of your suppliers to whom you have given a code of sustainability practice and I just need to understand how they adhere to it”.

A non-accounting assessor – J, further confirms that only the reporting organization decides on the scope and boundary protocols. ISAE3000 and AA1000 assurance standards also confirm that assessors must decide on the scope of assurance and ensure materiality is considered appropriately.

The researcher on reviewing SERA statements (non-human actant) highlights that ASAPs have commenced mentioning the scope of assurance in the assurance statements to make it clear that the assurance is not on the entire report, hence disclosing their limited liability to that extent. Even for reasonable assurance, the scope of assurance is however limited for non-financial performance. The NASAPs also mention the scope of assurance in the assurance statements but are not very specific in the details. Whether the level of assurance is reasonable or high level, the scope of assurance has been limited and decided by the management of reporting companies. This implies there could be material omissions or misstatements that remain unidentified by assurers, and this will impede the confidence of investors and key stakeholders in SERA practitioners and in the SERA process. These findings further confirm the major issue in SERA practice where ASAPs and NASAPs are not being able to problematize or create identities for all actants. This then affects the enrolment of actants into the network. The outcome is the lack of credibility in SERA process and the needs of stakeholders are not met.

5.5 Investors and Stakeholders Demanding Assurance of SER

The field study being conducted *in India* has an important finding *specific to India* and is brought out here. Assurers Partner C and Partner D – Big four accounting firm reveals that regulators (*Securities and Exchange Board of India, Institute of Chartered Accountants of India, Confederation of Indian Industry*) in India along with other stakeholders, have shown *keen interest in the assurance* of sustainability reports. One of the regulators – B asserted that in India, following the 2020 consultation, SEBI (Securities and Exchange Board of India) has introduced BRSR which is voluntary for Financial Year 2021-2022 and will be mandated from Financial Year 2022-2023 for the top one thousand listed companies. BRSR which is Business Responsibility for Sustainability Reporting is a form of SER. Regulator B confirmed that *SERA will become mandatory moving forward* with regulation oversight from the Institute of Chartered Accountants of India, as increasingly *investors are demanding assurance* of SER by third-party assurers. This brings to light that most investors investing in corporates in India have become increasingly aware of the need for assurance by third-party assurers even though assurance is not mandated globally. This is confirmed by B – regulator as:

“Assurance is not mandatory. But yes, going forward, this would become mandatory. In fact, ICAI is trying to work in that space. They are trying to push; they are trying to come up with some sort of institutional matter. It will probably take some time. But, yes, having said this, now, almost all the investors are now looking at some sort of assurance from the third party”.

With stakeholders demanding assurance of SER, it is *imperative* for ASAPs and NASAPs to negotiate with the management of reporting companies the need to engage with stakeholders (internal and external) and consider non-human actants in SERA to make decisions on the scope of assurance and materiality at the planning stage, performance stage and decide on the type of assurance statement to be issued at the completion stage. This further confirms the need to order and reorder the assemblage of actants in the SERA process, to include even the not-so-obvious actants when making decisions on the scope of assurance, the boundary protocols, and materiality.

5.6 Conclusion

To summarise this chapter, stakeholder engagement in SERA at both the planning stage where materiality assessment is performed, and at the data collection stage, is crucial to ensure there are no material misstatements and material omissions. The reporting companies make the decisions of stakeholder engagement. They are of the opinion that the assurers do not need to engage with stakeholders directly for non-financial performance due to the increased cost and they can do the engagement themselves. The assurers as main translators play an important role in negotiating with management and other key stakeholders the need for engagement with them along with consideration of non-human actants in making SERA practice more credible and not a *'tick in the box'* exercise.

This chapter outlined how the assurers as 'translators' in the SERA process take the role of representing other stakeholders and actants. The ASAPs and NASAPs use different assurance standards with the ASAPs focusing more on accuracy and controls and the NASAPs focusing more on stakeholders' engagement. This is because the assurance standards are not yet generally accepted for non-financial reporting assurance. This chapter unpacked the critical findings on stakeholder inclusiveness and the need to consider non-human actants using the first two stages of the translation process, problematization, and interessement. The chapter focuses on how the assurers as translators represent the stakeholders and need to engage with them, the need for adequate qualifications for assurers, the independence of the assurers to determine the scope of assurance, and the level of dialogic engagement with internal and external stakeholders. The findings unpack how the SERA standards need to be more specific in terms of the assurer's qualifications which is crucial as a lack of appropriate qualifications will undermine stakeholders' confidence in the assurer's independence and the need for SERA. This will result in the SERA

process continuing to be more of a management capture activity with the need for dialogic engagement being underplayed. This study using ANT highlights through the empirical findings how it can support reporting companies, assurers, and other key stakeholders to understand the need for dialogic relationships between all actors in the network to bring about the transformation in SER and SERA practice.

The next chapter brings out the findings on materiality assessment decisions in SERA and the stakeholder inclusiveness in making materiality decisions. The boundary objects, 'Sustainability' and 'Assurance' are also brought out here as complementing the translation process. The last two stages or moments of the notion of translation are used to understand how ASAPs and NASAPs build the network of support with other stakeholders and actants and how the assurers represent them in performing SERA, meeting their needs, and stabilizing the SERA process.

**CHAPTER 6 FINDINGS II: MATERIALITY ASSESSMENT IN
SERA**

6.1 Introduction

The previous chapter addressed the empirical findings to answer the first primary research question of stakeholder inclusiveness in the SERA process using the first two moments of the 'translation process' from ANT. This study using ANT and its ontology and epistemology elaborate on the notion of 'non-human actants' as part of the social to unpack the important findings.

Materiality decision-making, completeness, and responsiveness to stakeholders in SERA, which is the second research question are the focus of this chapter. *Enrolment and mobilisation (stabilization and representation)*, which are the next two stages or moments of the 'translation process' are used to collect and analyse data to answer the second research question. Using the empirical evidence and its' analysis, this chapter highlights the need for ASAPS and NASAPs to be successful in gaining the support of other actants including the external and supply chain stakeholders in obtaining the objectives of SERA (materiality assessment, completeness, and responsiveness to stakeholders). Materiality assessment in SERA can enhance the credibility of SERA statements. In Financial Statement audits, materiality is decided by the auditor based on the auditing standards, which enhances the true and fair view of the financial statements. In SERA, materiality decisions are based on the needs of varied stakeholders and are qualitative and not quantitative, making it a complex process. Hence, ASAPS and NASAPs must make the negotiations needed with other actants which will lead to the successful enrolment of all actants in the SERA network. This will give assurors the power to make materiality decisions appropriately where the needs of all actants are considered to ensure completeness, the credibility of SERA statements, and assurors' responsiveness to stakeholders. Using notions of ANT and its dual ontology and constructivist epistemology, the researcher uses an interpretive approach to answer the second research question. The researcher highlights how non-human actants like technology, SERA standards, GRI guidelines, management reports, and internal assurance reports can influence materiality in SERA, and ensure completeness, and responsiveness to stakeholders.

This chapter also considers the notion of '*Boundary Objects*' from ANT as explained in chapter 3 which complement the translation process and assist assurors to bring about stability and representation in the SERA process. 'Sustainability' and 'Assurance' as boundary objects with varied meanings between the actants in the network, the researcher explores how ASAPS and NASAPs succeed in bringing about stabilization in the SERA process. The researcher traces the

negotiations that take place between assurers and other actants to represent them in making materiality assessment decisions and ensuring completeness and responsiveness to stakeholders.

This chapter is divided into further sections. Section 6.1 is an introduction. Section 6.2 highlights how enrolment and mobilization are embedded into this study. Section 6.3 addresses materiality in SERA and how the assessor assesses and considers materiality. Section 6.4 addresses how non-human actants like SER and SERA statements, SERA standards, reporting standards, and technology influence the stabilization of SERA practice. Section 6.5 unpacks how the Boundary Objects (Sustainability and Assurance) are managed by assurers to bind different actors and successfully represent them and bring stability to the assurance process. Section 6.6 explains the need for assurers to issue Management Reports in addition to SERA statements. Section 6.7 explains the need for Internal Assurance practice and its significance to assist reporting companies and assurers in the SERA process. Section 6.8 is a summary and conclusion of the chapter.

6.2 Enrolment and Mobilisation

The third and fourth stages of the translation process; 'enrolment' and 'mobilization' are operationalised into this study to answer the second primary research question as follows:

- *How will materiality, completeness, and responsiveness to stakeholders in SERA enhance the credibility of sustainability reporting?*

Enrolment follows the previous stage of interessement where ASAPs and NASAPs negotiate with stakeholders to give them their identities in the SERA process and to confirm their own identity. The need to engage with stakeholders is further emphasized in this stage when the other actants accept and support the assessor in representing them to decide on SERA materiality and to perform SERA. At this stage, the actants must express their confidence in the assurers to decide on materiality, perform SERA, and issue credible statements at the end of the process (Callon, 1986). Materiality in SERA reflects thresholds of impacts created by companies' economic, social, and environmental performances. These impacts are on the organization itself, the environment, society, investors, and regulators, and hence engagement and negotiations will need to be made by assurers to decide on SERA materiality. Using the third and fourth moments of translation, the researcher traces how the management of reporting companies agree to the role of ASAPs and NASAPs in performing assurance and the power they wield as assurers to make materiality decisions and issue SERA statements. The researcher also traces how other stakeholders (NGO's, investors, suppliers,

customers) provide support to assurors and how non-human actants (SERA standards, reporting guidelines, materiality criteria, management reports, internal assurance reports, technology) have an influence on assurors to make materiality decisions and perform SERA. In this moment of translation, the researcher explores how other main actors accept the assurors as translators and continue to support assurors in making materiality decisions, performing the SERA process, and producing credible SERA statements. The researcher is also attentive to any new additions to be considered to the existing network of human and non-human actants or any disordering to be done or the need to form smaller networks for a successful enrolment (Callon, 1986; Latour, 2005) and how are assurors leading these changes that are needed.

Mobilisation is the fourth stage in the translation process after successful stakeholder engagement and enrolment. ASAPs and NASAPs in this stage successfully represent other actants and stabilise the SERA process only with the continuing support of stakeholders and non-human actants in completing the SERA process and in issuing credible SERA statements (Channuntapipat et al., 2019; Rivera & Cox, 2016; Star & Griesemer, 1989). The credibility of SERA statements is obtained when materiality is considered appropriate and can meet the needs of stakeholders. The researcher using this moment of translation investigates the continuing relationships between all actants in the network, identifying any disappointments or interruptions from stakeholders or non-human actants due to changes made to them that prevent assurors from performing SERA and issuing credible SERA statements. The researcher by reviewing the non-human actants (SERA standards, SERA statements) before engaging with assurors and stakeholders made an attempt to trace the reassembling of actants where needed and how this is managed by assurors as translators. For example, if any changes were needed to be made in SERA standards, the researcher traced how these are considered by assurors and communicated to standard-setting bodies. Other examples are how assurors verify technology used by reporting companies, and how is the need for internal assurance or management reports communicated by assurors to reporting companies. The gaps in the successful reassembling of the social are the issues highlighted in chapters 5 and 6. With SERA at its infancy stage, assurors' engagement with stakeholders has been challenging, especially with external stakeholders as laid out in chapter 5. This makes enrolment and mobilization stages difficult. These major issues from the empirical evidence are rolled out in the sections below using an interpretive approach and the ontology and epistemology of ANT.

6.3 Materiality Assessment in SERA Without Stakeholder Engagement

International Audit and Assurance Standards Board (IAASB) defines financial audit materiality in the International Auditing Standards as “misstatements including omissions, are considered material if they individually, or in the aggregate, could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements” (IAASB, 2009, p.314). However, for non-financial reporting assurance, materiality is defined by AccountAbility, 2018, AP 1100 as “*materiality relates to identifying and prioritizing the most relevant sustainability topics, taking into account the effect each topic has on an organization and its stakeholders. A material topic will substantively influence and impact the assessments, decisions, actions, and performance of an organization and /or its stakeholders in the short, medium, and/or long term*” (AccountAbility, 2018, p.20). This definition of materiality in SERA or non-financial reporting assurance is *extended to stakeholder logic* besides economic and professional logic used in financial auditing. With stakeholder logic, the *ethics of capitalism* is put to the test, and *meeting the needs of stakeholders* is the focus. Economic logic is meeting the needs of shareholders by maximizing profits. Professional logic uses the norms and guidelines of standards, regulations, and applicable legal frameworks. Materiality in SERA *also considers the future* and is not only based on past data (Edgley et al., 2015).

Materiality is considered critical in SERA to reduce stakeholder risks caused by a lack of relevant and reliable information on corporate material impacts of environmental and social responsibilities or performances in the SER reports. Materiality is an important aspect of SERA in order to report only on the information needed by stakeholders, thereby avoiding the cluttering caused by its malleable and subjective nature (Edgley et al., 2015). All these risks impact business strategy, the community, the environment, society, and working conditions. Stakeholder engagement is critical in making materiality assessment decisions in SERA, which is qualitative and not quantitative. This is because material issues in non-financial reporting are identified when stakeholder needs are considered, and the organizational impacts are measured against these needs. Stakeholder inclusiveness also enhances the transparency of materiality assessment performed by assurers which consequentially increases the credibility of SERA statements resulting in completeness and responsiveness to stakeholder needs. Prior research on materiality assessment in SERA practice has been conducted to a very limited extent (Canning et al., 2019; Edgley et al., 2015) using other social theories. O’Dwyer (2011) highlights why materiality in SERA is complex because of the qualitative nature and is unsupported by environments used in financial auditing, which is more

quantitative and backed by generally accepted auditing standards (Canning et al., 2019). The risk of material misstatement in SERA is very different from financial auditing risks as the criteria developed to assess SERA materiality is limited, and the SERA standards are not fully adhered to by assurors or reporting companies. This study is an extension of Edgley et al (2015) and uses the ANT lens to understand materiality assessment in SERA, from a different perspective. With limited empirical studies in SERA materiality to date (Canning et al., 2019; Edgley et al., 2015), this study is exploring how materiality is considered by assurors, especially that non-financial materiality can be considered differently by users, assurors, and reporting companies (Canning et al., 2019). SERA materiality must focus on the user's considerations, with materiality being subjective and malleable.

In this study, SERA materiality assessment is explored using the third and fourth stages (enrolment and mobilization) of the translation process. This is because only after ASAPs and NASAPs engage with stakeholders and other actants using problematization and interessement to form the relational assemblage and agree on identities, that these major decisions in SERA can be taken up. The researcher traces how ASAPs and NASAPs obtain the power and support from other actants using 'enrolment' and 'mobilisation' moments of the translation process to make materiality decisions and represent them (Callon, 1986; Waeraas & Nielsen, 2016; Charika et al., 2019). The researcher traces how assurors bring about representation and stabilisation of SERA practice which can result in issuing credible SERA statements.

This study engaged with ASAPs and NASAPs, the network's lead actors, other stakeholders, and non-human actants (other main actors) to understand materiality assessment in SERA. From the empirical findings, this study highlights that *accounting assurors have not considered stakeholder logic to the relevant extent needed to assess materiality*. Using the stakeholder logic, the assuror as the translator should engage with the management of reporting companies and with employees, community, regulators, NGOs, investors, suppliers, and customers to determine materiality in SERA based on their needs. These stakeholders' inputs are crucial to identifying material issues and meeting their needs. Also, *ASAPs mostly use ISAE 3000*, and in certain cases, *at the request of reporting companies, they consider AA1000* to conduct the assurance. They use the *guidance of GRI standards and in-house professional regulations* in addition. The standards are *not applied appropriately* by assurors to ensure stakeholder logic. This indicates, the assurors as translators are *not considering SERA standards (non-human actant) and stakeholder interests*, other than the influence of management of reporting companies in the SERA network and hence these exclusions affect successful enrolment and mobilization of the SERA network. The researcher also adds that

assurors as translators have not made any attempt to *persuade these passive actants* to join the network to give them their identities. The researcher interprets that the decision of what is material is decided by management. Though, X – partner Big Four accounting firm detailed the materiality criteria as:

“We do a lot of reviews; you know before we embark on our assurance journey. We look at material stakeholders, we look at sectoral materiality, we look at media research, we look at the client’s growth also, and we look at the client’s geographical presence. So, based on four or five criteria, we decide on what parameters we will consider for the assurance”.

From the empirical findings, this study asserts that *ASAPs do not engage with other key stakeholders* to determine SERA materiality, except *they guide management* in the process to a small extent. ASAPs assess the materiality analysis performed by the management of reporting companies but *do not make the materiality decisions* in SERA or *neither engage with stakeholders nor do they comply with SERA standards* to the extent needed to assess SERA materiality.

The researcher when engaging with NASAPs, E- NASAP/Certification Body assesor explains the significance of materiality in SERA with stakeholder inclusiveness as:

“If you see materiality, it is a very important step. So, we, as the assesor, here, generally have a very deep discussion with the people concerned to understand the methodology they adopted and go through with them, how they arrive at the materiality, and what process they follow. And that is up to this stage and to know what next, you know, how you are going to address materiality into your action plan, your policies, your practices”.

Using the above empirical evidence, the researcher confirms that *non-accounting assurers also engage only with the management of reporting companies* and not all stakeholders to assess materiality. This lack of adequate stakeholder engagement and lack of consideration of SERA standards as a network, are the major obstacles for assurers to make materiality decisions as they are not able to establish the OPP in the first place and neither create identities for themselves nor for other actants. This results in not managing the latter two stages of enrolment and mobilization in the translation process as a result of which ASAPs and NASAPs are not representing the other main actants in the SERA process. This implies materiality decisions are not stakeholder driven and are influenced only by management. This results in impacting the completeness of SERA statements and assurers' responsiveness to stakeholders. The needs of stakeholders are not being considered and the non-human actants (SERA standards, GRI guidelines, and materiality criteria) are not integrated into the SERA network appropriately. This affects the stability of SERA practice, further confirming management and professional capture in the SERA process. Non-accounting

assurors use more of AccountAbility assurance standards, AA1000 and hence the standards can guide them on how to engage with stakeholders in assessing materiality. AA1000 SES (Stakeholder Engagement Standard) is based on the principles of inclusiveness, whereas materiality and responsiveness are stated in AA1000 APS (AccountAbility Principles Standard). Inclusiveness asserts that key stakeholders should influence materiality decision-making as it impacts them. Materiality implies decision makers must identify and be clear about the material issues. Responsiveness to stakeholders is about the reporting companies being transparent on material issues.

Using ANT ontology where humans and non-human actants are given agency status, this study unpacks that with ASAPs and NASAPs not engaging with all stakeholders or making them part of the network and not considering SERA standards appropriately, assurors can overlook material misstatements/omissions in the disclosures made. This issue stems from the bigger issue of assurors not making the materiality decisions themselves and from not having a dialogic engagement with all stakeholders. This results in affecting the legitimacy of SERA practice and the objectivity of assuring the sustainability reports.

The empirical evidence also reveals that assurors consider the *maturity* of the reporting company when assessing the materiality analysis. For companies that are new to sustainability/integrated reporting, the assesor performs more stringent checking of the materiality analysis. For matured companies, they accept the materiality analysis provided by the company. This is brought out by X – partner of the Big Four accounting firm:

“Then we look at the maturity curve, that is the client going in for assurance, for the first year, second year. But the last part of the first year and second year would not matter much on the assurance stringency. But, yeah, if it is the first year, I would also expect some hiccups from the client side. Yeah, I would deploy more people and spend more time for my safety to ensure that I will not miss out on any point in the assurance process”.

This practice may not meet the needs of all users especially if new actants become part of the network. For example, for matured companies, the technology used could be an important actant to consider when making materiality decisions or there could be changes in the standards or new actors in the supply chain need to be considered. Hence, there could be material misstatements/omissions due to these major changes in the company which is overlooked by assurors. This leads to a lack of adequate representation of actants in performing SERA, making materiality assessment more of a management capture.

The researcher when engaging with reporting companies highlights that though they consider stakeholder engagement to an extent by using GRI standards to prepare the reports, they rarely consider stakeholders in the decision-making for materiality, which results in management pursuing their own goals. As SER is not mandated in most jurisdictions, the reporting companies make their own decisions to choose the stakeholders to engage with, to decide the priority of stakeholders to engage with, and have the authority to determine what is material. There is no dialogic stakeholder engagement for materiality decision-making. The assurers are also not consulted when making decisions of materiality though in some cases, minimum guidance is sought by the reporting companies from the assurers.

H & I – sustainability heads of a reporting company highlight their materiality assessment practice:

“We did the materiality assessment in 2019-2020, we don't typically do it every year. Every two or three years, we do the materiality assessment with the help of an independent third-party consultant. So, they were involved throughout the process, and they led the whole materiality process for us, they met with all the stakeholders that we were interacting with on a regular basis. And that's what we have for materiality”.

Materiality analysis and materiality decisions made without considering the needs of stakeholders can undermine the principles of completeness of SERA statements and responsiveness to stakeholders. It is crucial for the assurer as the main translator to ensure these principles are followed to bring about stabilization in the SERA process. Even where organisations have considered all internal stakeholders for materiality decisions but not key external stakeholders, there is a high probability of material issues not being disclosed, which affects the materiality validity and credibility, and objectivity of SERA practice and SERA statements.

The non-accounting assurer – E brings out the facts of determining materiality validity in SER as:

“So, from experience, just to validate the materiality process, there are few organizations who have done it very well. But they also are not able to reach out to the external stakeholders, they do a very good brainstorming session with the internal stakeholders. But we believe if they expand the same approach, same methodology to include the external stakeholders, they might un-surface some of the material issues, of which they are not aware. Being an organization, we are too centric within the four walls, you know, of our company. But they must broaden their mindset, and their considerations to include the entire value chain and you know, looking into the regulatory framework, end of life, circular economy, regulations”.

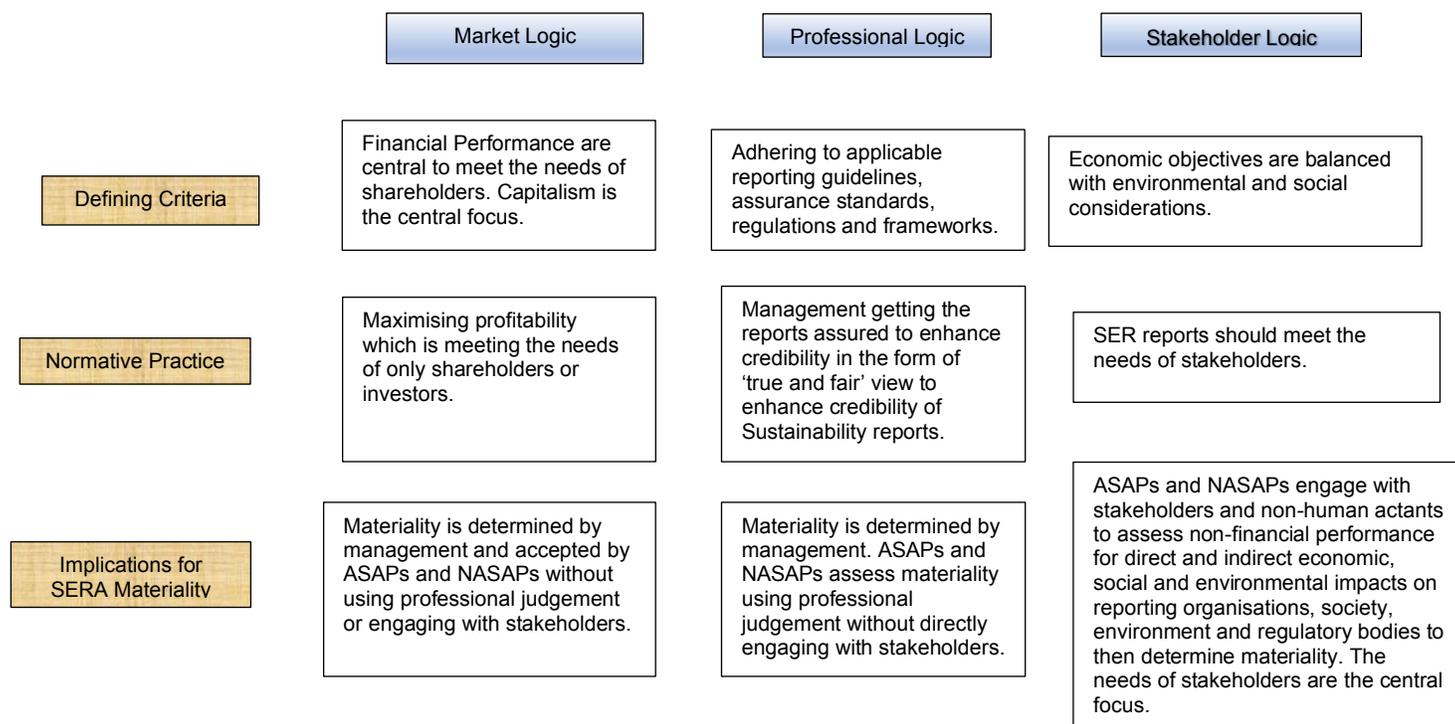
The notions of the 'sociology of associations' and 'translation process' from ANT prompted the researcher to trace stakeholders in the value chain and how ASAPs and NASAPs have engaged

with these for materiality assessment. The researcher recommends that assurers can use indirect engagement in the form of phone calls or emails for value chain stakeholders (suppliers), but they must be taken into consideration by assurers as secondary impacts can be material. This practice will enhance the quality and credibility of materiality assessment in SER and SERA.

Reporting companies by not considering all stakeholders and the correct priority, by not considering assurers in materiality decision making, and their lack of understanding of SERA standards reduces the reliability and validity of the SER and SERA report, resulting in SERA becoming more of a greenwashing strategy for marketing purposes. The possibility of risks of material omissions/misstatements is very high for reporting companies and for assurers issuing assurance statements. It is critical for the assurers to step up and request the reporting companies, that they engage with all stakeholders, especially the stakeholders in the supply chain which may not be obvious, and the need for assurers also to engage with these stakeholders. The researcher using constructivism epistemology and an interpretive approach in this study identified these issues of materiality in SER and SERA. The researcher recommends that ASAPs and NASAPs must support the reporting companies and make them familiar with the assurance standards frameworks and drive more impact-based reporting. This will result in assurers giving identities to all actants and obtaining successful enrolment where they represent actants to make materiality decisions and obtain stability in SERA practice.

The researcher has developed a Materiality Assessment Model for ASAPs and NASAPs using guidance from prior literature (Cerbone & Maroun, 2020; Edgley et al., 2015; Moroney & Trotman, 2016), which is shown in Figure 6.1 below. Prior literature has not considered secondary impacts when considering SERA materiality and this is brought out in the model below.

Figure 6. 1: SERA Materiality Assessment Model



This materiality assessment model addresses the second research question:

- *How will materiality, completeness, and responsiveness in SERA enhance the credibility of sustainability reporting?*

From the semi-structured interviews conducted using the guidance of the ANT lens, the findings confirm that ASAPs are using ISAE 3000 and are following professional logic where the materiality assessment is based on professional judgment like in financial auditing. ASAPs interviewed did *not have much to comment on for materiality assessment and were more dependent on management decisions and used professional judgement to a small extent.* They are using a combination of market and professional logic for materiality assessment. NASAPs also confirmed that they *depended on management* for materiality decisions. Edgley et. al., (2015) indicated that NASAPs use AA1000 and hence had the guidance to follow the stakeholder logic in assessing SERA materiality. From the empirical evidence and with SERA in its developing stages and not made mandatory, both ASAPs and NASAPs are not fully involved with materiality assessment and avoided giving in-depth responses to the researcher. With materiality assessment being more of a management capture in SERA, the need for stakeholder engagement by assurers is crucial to

ensure stakeholder needs are understood and taken into consideration. Materiality in SERA is ensuring the assurance statements are meeting the needs of stakeholders, which is a combination of using stakeholder and market logic along with professional logic to comply with standards and frameworks. While prior research made recommendations for the stakeholder logic (Cerbone & Maroun, 2020; Edgley et al., 2015), this study uses the notions of ANT to make the above recommendation after engaging with a wide spectrum of stakeholders, reviewing and discussing the non-human actants with assurers and stakeholders and understanding their perspectives and their recommendations. The indirect impacts were considered for the first time and the need to consider non-human actants and for assurers to engage with all stakeholders using the notion of tracing the associations and connections from ANT is unique to this study.

6.3.1 Duration of Assurance can Impact Validity in the Materiality Assessment

SERA process should involve pre-assurance, assurance, and post-assurance stages which should normally extend over three to four months, as confirmed by one of the NASAPs. However, the entire SERA duration currently spans between 4 – 6 weeks as the entire process commences after the financial year's end. The draft integrated report is prepared even before the assurance commences. This undermines the objective of SERA and is more of management wanting to enhance the value of SER rather than meeting the needs of users of assurance statements. This further affirms that ASAPs and NASAPs are not engaging with stakeholders to assess or determine materiality at different stages of the assurance process. The SERA process requires a few months to ensure an appropriate assessment of risks, complete verification of SER reports, and preparation of a reliable assurance statement. The researcher uses the four moments of translation to understand the SERA process and recommends a longer duration is needed to perform SERA to meet the needs of stakeholders. The assessor must be able to commence the assurance before the financial year's end, this will enable the assessor to plan better, engage with stakeholders, assess material risks, and produce credible SERA statements. This is supported by a recommendation made by a non-accounting assessor E as below:

“With a lot of pressure, and market dynamics, very limited time is given for the assurance company to complete it. The role of the assessor starts towards the very end when you have the draft report. It's being sent for the graphics design, and then you ask your assessor to go. So, I wish it could have been started a bit early. For example, a sustainability report is at the end of a financial year or a calendar year. Generally, it is a few months' exercise, the assurance role must be a little bit early into the stage rather than towards the end. It is a

common concern. At least what I realized, by having said that, by adding those additional measures, it would further improve the credibility I would say". (E – Non-Accounting assurator)

This study is the first to roll out this issue in the SERA process using ANTs ontology and epistemology and getting into the center of the SERA process to understand the lived experiences and interpretations of the research participants along with discussing the non-human actants with them. The duration of the SERA process is an important consideration as it influences materiality assessment by assurers and hence this is rolled out here.

6.4 Influence of Non-Human Actants in Stabilising SERA Practice

Non-Human actants are considered material in this study using the ANT lens and are used to trace the connections and relationships in the network which has a ‘flat’ structure (Latour, 2005). Table 6.1 below lays out how the notion of non-human actants has been operationalized by the researcher to investigate if they have been considered material to make SERA practice more credible. These non-human actants must be part of the SERA network as their roles are material as part of the singular collective and have agency relationships with other actants in the social network (Latour, 2005; Law, 1992) and must be considered to enhance the credibility of the SERA statements. ASAPs and NASAPs as translators must represent all the other actants to make translation possible. They wield power as assurers only after these connections are complete and they can represent them and ‘BlackBox’ the network (Callon, 1986; Latour, 2005; Michael, 2017).

Table 6. 1: Operationalisation of the Notion of Non-Human Actant

Type of non-human actant	Operationalisation by reviewing the non-human actants	Operationalisation by discussing non-human actants
SERA Statements	5 SERA statements issued by ASAPs were downloaded from websites and reviewed before and after the interviews to trace connections 5 SERA statements issued by NASAPs were downloaded and reviewed before and after the interviews to trace connections	The findings after the initial review were used to frame questions for the interviews. For example, on the scope of assurance, independence, materiality, stakeholder inclusiveness, management report/letter, addressed to management and not stakeholders
ISAE 3000	Downloaded and reviewed before and after the interviews	The contents are used to frame interview questions regarding the scope of assurance, materiality, stakeholder inclusiveness, qualifications of assurers, management report, and level of assurance

AA 1000 (APS and SES)	Downloaded and reviewed before and after the interviews	The contents are used to frame interview questions regarding the scope of assurance, materiality, stakeholder inclusiveness, qualifications of assurers, management report, and level of assurance
Management Reports	No review as confidential and hence not shared by ASAPs or Reporting Companies	Discussed with research participants (ASAPs, NASAPs, Reporting Companies and Regulators) as part of the singular collective
Internal Assurance Reports	Not available as not adopted by the reporting companies	Discussed with research participants (ASAPs, NASAPs, Reporting Companies and Regulators) as part of the singular collective
Technology	Internal control systems were not reviewed as only virtual interviews conducted	Discussed with ASAPs, NASAPs and reporting companies as the central part of the internal control system
Qualification Criteria	ISAE 3000 and AA1000 reviewed before and after the interviews	Discussed with ASAPs, NASAPs and regulators as material to SERA network
Materiality Criteria	ISAE 3000 and AA1000 reviewed before and after the interviews	Discussed with ASAPs, NASAPs, reporting companies, regulators, and NGOs
Firm-Specific Documents	Mostly not shared, except for one research participant. Reviewed before and after the interview	Made a request to share at interviews. The one obtained was discussed by the research participant
GRI guidelines	Reviewed before and after the interviews as material to the SERA network	Discussed with ASAPs, NASAPs, reporting companies and regulators

The ASAPs and NASAPs, as translators in the SERA network, use different methodologies, and SERA standards and hence do not follow the homogeneity in SERA practice (Casey & Grenier, 2015; Channuntapipat, 2018; Peters & Romi, 2015). They need to take the guidance of the assurance standards along with their own firm-developed assurance frameworks and other sector or industry-specific frameworks in performing SERA. The non-human actants as stated in the table above have an influence on the SERA process. The researcher using ANT considered these non-human actants to trace the connections in the SERA network and how assurers can stabilize SERA practice by engaging with these non-human actants besides stakeholders and representing them. These non-human actants must be intermeshed with assurers and stakeholders in the SERA

network as they provide support to successful enrolments and mobilization of the network that help assurers to represent all the actants and perform SERA in a credible manner (Callon, 1986). The SERA standards, technology, and other non-human actants can support the assurance firms in benchmarking their practice with other assurers. With generally accepted assurance standards like in financial auditing, this benchmarking would have been possible to a greater extent. Using the notions of ANT, this study considers these non-human actants to trace all the connections in the SERA network, to identify the gaps in the current SERA practice, and to make contributions to making SERA more credible. The researcher reviewed SERA statements, SERA standards, and GRI guidelines before engaging with assurers and stakeholders and accordingly framed questions to discuss with the human actors to collect data to answer the two research questions. The researcher traced how human actors used non-human actants and how the collaboration and connections created influenced materiality decisions in SERA, stakeholder inclusiveness, and performing the SERA process.

Accounting firms consider ISAE 3000 appropriate as ASAPs focus more on assurance procedures and reporting formats. ISAE 3000 is being developed by the International Federation of Accountants (IFAC), the accounting body and ASAPs consider this standard in priority and a valid standard. NASAPs use mostly AA1000 and ISO standards as they focus more on completeness, fairness, and overall balance.

J, Non-Accounting assessor and an NGO confirm the use of assurance standards and other frameworks as:

"I see particularly you know when we look at the global arena for assurances, I see mostly the market-oriented standards, which are being referred and are being used for assurance purposes. So, we would also look at ISAE 3000 as one framework, we mostly refer to AA1000 which is the other framework. And then we would also look at the ISO standards. We often refer to ISO26,000 as one of the standards, because we can guide organizations based on that framework".

There are differences in the SERA standards in relation to the methodology, qualifications, and objectives of assurance. In many cases, assurers using ISAE 3000 do not have the requisite qualifications, which is explained in detail in sub-section 5.2.3 of chapter 5. The SERA statements are not generally accepted; hence, it is difficult for assurance and reporting companies to benchmark their assurance reports with other assurers and reporting companies. The empirical evidence also highlights that assurers have not been providing any training or formal understanding of the assurance standards to the reporting companies. Assurers provide some guidance to the

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reporting companies when approached. The GRI guidelines do not mention the need for the SERA standards to be understood nor the need to use them to prepare sustainability reports.

G, the sustainability head of a reporting company, confirms how the assessor decides on the assurance standards to be used, as:

“This is like I was saying the decision was taken before I came in. I haven’t questioned it at all and this continues. Now that you have put this idea in my head, I will go and ask the assessor about AA1000AS, why is this standard too not followed?”

With this lack of understanding of assurance standards by the reporting companies and with limited assurance statements issued to most clients or partly reasonable and partly limited, there is a high possibility of material misstatements or material omissions in the sustainability reports which remain unidentified. The lack of qualifications of the assessors (discussed in chapter 5, sub-section 5.2.3) increases the possibility of SERA materiality not being considered adequately in the assurance process. These limitations can undermine the stabilization of SERA practice, stabilization of materiality decisions, and the legitimacy of the SERA statements.

One of the regulators unveiled a significant development in SERA practice in India. The regulatory body is working on developing a new assurance standard for non-financial reporting assurance. The Bureau of Indian Standards is developing this standard. India intends to internationalise this standard and has approached international delegates who have shown keen interest in considering this.

B, the regulator in India confirms the developments of the new standard to be used in India and internationally:

“And this standard will be applied for assurance of any sort of performance be that of sustainability performance, be that of ESG, be that of CSR, be that for application in integrated reporting. So, any sort of parameter which is other than statutory financial information can be assured based on this standard. So, this standard has been almost close to around four and a half years since we have been working on this. So, now is the final time I think, the next one or two months, it should be released”.

This is an advancement in SERA practice and is supported by regulators to enhance the credibility of SERA like in financial auditing.

The understanding of the influence of non-human actants in the SERA process as stated above is unique to this study and has been considered only in one prior study so far (Channuntapipat et al., 2019). There has been limited research on SERA standards, and materiality criteria (Canning et al., 2019; Edgley et al., 2015). This study is using the dual ontology and constructivist epistemology and an antipositivism approach and hence has made contributions to SERA using a different perspective, where human and non-human actants are considered together and no assumptions are made on who has more power, but rather power can be obtained by any actant only after forming a complete network. Technology as a non-human actant has not been considered in depth in this study due to the virtual interviews on account of the pandemic. The researcher intends to consider this important non-human actant in further research on completing this thesis.

6.5 Boundary Objects Complement Translation Process

Using the notion of 'Boundary Objects' from ANT, 'Sustainability' and 'Assurance' are the boundary objects that support the translation process. The researcher uses this notion to answer the two research questions. Boundary objects bind different stakeholders together as these objects are commonly used, though interpreted differently (Briers & Chua, 2001; Channuntapipat et al., 2019; Leigh Star, 2010). In this study, the researcher considers these boundary objects as complementing the translation process where the assurers as translators need to make other actors accept that though there are differences in their interpretations of 'Sustainability' and 'Assurance', this flexibility must be transformed to bring about a unified understanding of SERA practice and materiality decisions. This will support assurers in the successful enrolment of all actants and in representing them to ensure that the sustainability disclosures meet users' needs, materiality is considered appropriately, and the assurers' role as a translator is considered as the roadmap to enhance the value of SERA statements. The assurer can unify these diverse interpretations of 'sustainability' and 'assurance' by having a dialogic engagement with all actors, giving identities to non-human actants, and the stakeholders accepting the assurer's role as a representation of them.

Prior studies in SERA have used other social theories where the notion of 'boundary objects' is not part of their research design. This study focuses on boundary objects as it is an important construct of ANT, especially when negotiations need to be made, like in materiality decisions or the scope of assurance. These negotiations are between assurers and management, with each having different interpretations of 'sustainability' and 'assurance'. ASAPs and NASAPs though they would want to conduct assurance of the entire report, they are forced to accept only part assurance, which is

management-determined KPIs. This is justified by management based on considering the benefits Vs costs (Channuntapipat et al., 2019). The notion of 'boundary objects' has guided the researcher to trace how assurors are making these negotiations with actants to come to a consensus that SERA statements must meet stakeholders' needs, and how negotiations are made to determine SERA materiality and scope of assurance.

X- Partner of the Big Four accounting firm as the assesor explains the need for the assesor to bind the actors with different interpretations of the boundary objects to support the assurance process as follows:

“Capacity Building is basically you know, today, you are getting subjected to assurance for the first time. You are clueless. So, we tell you what assurance is. Even if this happens, the client in the corporate office might be aware of it, but the client at the site is totally clueless. The site people think the assesor has come to check the numbers, purely numbers. So, we build the capacity. We explain to them the meaning of assurance, why it is important, and what is your role in this assurance. How can you support your own organization in ensuring a good assurance is performed? How these assurance findings would be used by the organization? What impact will it have on the organization’s performance? The entire cycle, we explain it to them”.

The assurors are ASAPs and NASAPs and follow different SERA standards to conduct the assurance creating challenges for the assesor and for the reporting company. The study recommends that assurors need to develop and provide the clients with an assurance guide and the assurance checklist and discuss with the client the requirements of the assurance standards to be adhered to when preparing the sustainability reports.

Y, a regulator, reveals in the interview the need for assurors to focus on engaging with stakeholders to bind the varying interpretations of sustainability and assurance as:

“So, the assesor must ensure that the stakeholder consultation has been done keeping sustainability as the core of the business. The assesor needs to understand what the company’s major sustainability impacts on the business are and how the company will interface those things with the stakeholders”.

The assurors' engagement with external stakeholders and working internally with the reporting client to bind the different interpretations of 'sustainability' and 'assurance' will create support between actors in the network, bringing about successful 'enrolment' and 'representation' in the assurance process. This will enable the assesor to identify the material issues, the material stakeholders affected, and the material impacts created by the non-financial performance. In

bringing about this stability, the assessor must ensure the reporting company demonstrates the material impacts in the report and is not only kept as part of data collection. The assessor as a translator needs to work with the reporting companies to focus on impact-based reporting, including primary and secondary impacts. The assessor must consider this when assessing materiality at the planning stage itself. The primary impacts are the direct impacts of non-financial performance (environmental and social) on various stakeholders. These are reported in the SER/Integrated reports. The secondary impacts are less obvious and indirect and though they are material in many cases, go unreported. The assessor needs to verify these impacts which are at the supply chain level and consider stating these secondary impacts in the management report before issuing the SERA statement. These impacts need to be discussed with management before issuing the SERA statements, and the decision taken accordingly on whether to disclose them in the SER reports based on their level of materiality.

6.6 Management Report is Vital to Enhance the Value of SERA Statements/Reports

Management Report, also called Management Letter, is imperative in SERA practice and adds value to SERA statements issued to the management of reporting companies at the end of the assurance process. This report is issued to notify management of any limitations in the scope of disclosures in the sustainability reports, in the verification process, in the assurance engagement, and to make recommendations for changes if needed. The assessor needs to ensure that this report is not communicating anything materially different from what will be stated in the final assurance report or that will affect the true and fair view of the assurance statement. This report is to give further details of the limitations, examples if needed, and recommendations for any remedial action, some of which may need to be attended to before the assessor can issue the draft assurance statement.

Prior research has not considered management reports and their significance in SERA practice. This study using the notion of non-human actants, the notion of the network, or the sociology of associations, in tracing the relationships considers management reports important along with the human actors to enhance the value of the SERA process (Latour, 2005; Michael, 2017). The researcher engaged with ASAPs and NASAPs and other stakeholders using the translation process to understand their perspectives on the need for a management report from the assessor before the SERA statements are issued.

From the empirical evidence, one of the ASAPs confirmed that the Big Four assurers issue management reports in many cases before the draft assurance statements are issued explaining the observations, limitations, and making recommendations. X partner Big Four assessor stated:

“Before we conclude on the assurance, we do develop a management letter. If you read the recent assurance statements, we would have been mentioning that immediately after the conclusion that there is a management letter, which has been issued to the management, you know, highlighting the observations and all in greater detail, and once we agree on the management letter, we then develop a draft assurance statement”.

The management of reporting companies should also consider this report significant to understand the detailed recommendations and observations. The assurers have started mentioning this report in the assurance statement, but there is no follow-up made on this report with reporting companies and the action taken. Hence, the report issued can be more of a firm compliance process, than adding credibility to SERA.

The researcher further highlights a contradictory view from another Big Four accounting firm and non-accounting assurers. These research participants stated that management reports are optional and are issued only on demand from reporting companies. The assurers make a presentation to management on the important findings, observations, limitations, and relevant recommendations. These are not kept on record or followed up; a formal report is only issued when requested. This is because of additional costs to the reporting company. C – Big Four accounting firm assessor confirms this as:

“Typically, companies which are in their first or second year, they do seek, what are the matters, which need to be kind of strengthened in terms of their communication in each of these reports, be it integrated report or sustainability report. So, we do share our insights with them. We do make a presentation to them as part of it. If they seek a formal letter, then we do give it to them”.

To safeguard themselves as assurers, they obtain a representation letter from the management acknowledging that management is responsible for the disclosures in the sustainability reports and that the assessor's liability is limited.

The AccountAbility standard, AA1000AS explains the need for assurers to issue management reports to reporting companies. However, it is not mandatory and is subject to the engagement terms between management and the assessor. ISAE 3000 makes no mention of the management report. The regulators during the semi-structured interviews strongly believed that assurers should

issue management reports to obtain the objectivity of SERA practice. They are of the opinion that SERA has no meaning without a management report. In the case of reporting companies, from the empirical evidence collected, some of them did not understand the significance of a management report.

Using the constructs of the ANT lens and its ontology and epistemology, the researcher by analysing and interpreting the above empirical findings indicate the need for reordering or reassembling the SERA network to add a management letter as a non-human actant to complete the SERA process and issue the SERA statement. This study makes a recommendation for assurors to issue formal management letters before issuing the assurance statement and explain the significance of this report to reporting companies. This report must form the basis of the assurance statement and can be used to follow up on the remedial actions recommended in the next reporting year. This report can keep on record the material issues, observations, and recommendations for which action needs to be taken and can be referred to by both assurors and reporting companies in the subsequent reporting years to consider materiality and scope of assurance. The researcher also recommends that the assurance standards (ISAE 3000 and AA1000AS) should include the need for a management report and specify the report's structure. This report can provide support to assurors as they are representing stakeholders and non-human actants in performing SERA with detailed feedback and recommendations made. It can also form the basis for materiality decision-making and deciding on the scope of assurance in the subsequent year.

6.7 Internal Assurance and SERA

Internal assurance is a form of internal audit where the assurors assist the reporting company in verifying the internal control systems for non-financial reporting. The internal assurance practice assists in ensuring the non-financial capital and non-financial performance are being accounted for according to assurance standards criteria (Peters & Romi, 2015; Sharma et al., 2018). This is also referred to as a second-party audit. Earlier research considered internal assurance to a very limited extent. Peters and Romi (2015) considered the possibility of internal assurance being adopted by SER companies in place of assurance by external assurors (ASAPs and NASAPs). Sharma (2018) highlights the need for internal assurance to support external assurors, which could reduce the cost of external assurance to reporting companies.

This study using the ANT lens reviewed non-human actants to understand how they are used as part of the SERA network and how they can trace connections of human actors. Internal assurance reports as non-human actants were followed up by the researcher with the research participants as human actors. From the primary empirical evidence collected, the researcher found that most reporting companies do not have internal assurance mechanisms to support non-financial reporting. Very few companies have recently commenced appointing internal assurers. This practice of reporting companies having internal assurers is strongly recommended by accounting and non-accounting external assurers as research participants. The internal assurers can assist reporting companies in monitoring their non-financial performance on a regular basis and have better controls in place. This is recommended to mitigate SER risks as an increasing number of non-financial risks are linked to financial risks, affecting companies' long-term sustainability. X - a Big Four accounting assurer confirms the need for internal assurance as:

“But to your point on doing an internal review, or internal audit they should look into it, because that's the way forward for many companies. Because more and more non-financial risks are getting interlinked with financial risk, hence if they are reviewing it well in advance, they can take corrective actions”.

This practice will also increase investors' confidence in the non-financial performance reports and give them an update on the controls used to manage these risks and how the company is faring with its non-financial performance.

One of the regulators articulated how internal assurance can assist in guiding reporting companies with an understanding of the assurance standards to help them prepare the reports to meet the assurance standards criteria.

Y, regulator explains the need for internal assurance as:

“So, I think this is one of the major gaps worldwide that companies need to understand. There are three things that they must understand: what are their own internal sustainability systems? What are the disclosure norms? If they are getting assured for ISAE 3000 or AA1000AS, I can be sure that no reporting organization or even the financial auditors of their company or the consultants have read ISAE 3000 or AA1000AS”.

With SERA at its nascent stage, it is important for reporting companies to consider internal assurance which will help in monitoring monthly reports on non-financial capital performance and then gradually assist in the management of reporting risks. Internal assurance can provide guidance on the assurance standards and support reporting companies in preparing the reports to meet the

criteria of SERA standards. With the increase in non-financial risks affecting companies' long-term sustainability, internal assurance can assist reporting companies to make materiality decisions and engage with stakeholders even at the supply chain level where the indirect impacts can be material, though not obvious. Internal assurance reports can assist external assurers at the planning, risks assessment, and materiality assessment stages and at the conclusion stage. It is challenging for assurers to ensure that materiality is appropriately considered, especially since it is non-quantitative, and users have varied needs. Assurers can also engage with internal assurers to explain the non-conformities in sustainability reports before issuing the assurance statements and get them to make the rectifications if needed. Internal assurance can also take the form of a stakeholders' panel for reviewing the contents of the sustainability report and materiality disclosures. Internal assurance practice can support the need for stakeholder engagement in an appropriate manner, to provide the understanding of direct and indirect material impacts, which can be considered in the internal assurance report and taken up by management to ensure that material disclosures and remedial actions are considered even before external assurance commences.

6.8 Conclusions

This chapter sets out primarily the empirical findings on materiality assessment in SERA and how it is different from financial audit materiality. SERA Materiality is the focus of the translation process and must have stakeholder inclusiveness to meet the needs of stakeholders. It is critical for ASAPs and NASAPs to engage with key stakeholders, besides management of reporting companies, and to ensure direct and indirect material social and environmental impacts are reported in SER. This is because these material impacts, if not reported, will enhance stakeholder risks and will affect the organisation's strategy, the community, climate change, working conditions, society, and the environment (Edgley et al., 2015). Enrolment and stabilization stages of the translation process (Callon, 1986) were embedded to highlight the empirical findings in this chapter. Using the 'society-nature' or 'structure-agency' dualism of ANT ontology and the heterogeneity in the network relationships, the researcher traced both human and non-human actants and their relationships without making any assumptions about who has more power. The researcher explored how the role of ASAPs and NASAPs was supported by stakeholders and non-human actants like SERA standards, internal assurance reports, materiality, management report, and technology. The researcher also explored how assurers represented the network and how reordering or reassembling of the social was needed to include actants that were not considered, for example, management reports or internal assurance reports. The researcher developed a *'Materiality*

Assessment Model' in figure 6.2 in section 6.3 as an extension of earlier research to emphasise the need for stakeholder inclusiveness and the consideration of all actants, to ensure materiality in SERA is based on the needs of stakeholders, resulting in completeness and responsiveness of SERA statements.

The empirical evidence reveals that materiality in SERA is not considered with stakeholder engagement, and assurance standards are not understood by the reporting companies and are not adequately used even by assurers. The assurance standards were not fully considered to make materiality assessment decisions. The professional and market logic was used by ASAPs and NASAPs and not the stakeholder logic. Even though prior research, which is very limited (Edgley et al., 2015), revealed the need for stakeholder logic to determine SERA materiality, this study used the ANT lens to bring out these significant findings giving a different perspective. Some additional findings from engaging with stakeholders and consideration of non-human actants and the heterogeneous relationship in the network as a singular collective are also set out in this chapter as these findings are related to the primary focus of materiality assessment in SERA.

The notion of '*boundary objects*' (Briers & Chua, 2001; Channuntapipat et al., 2019) from ANT guided the researcher to bring out the need for ASAPs and NASAPs to consider the varied perceptions of 'Sustainability' and 'Assurance' by different actants, and make negotiations accordingly to represent them in making materiality decisions in SERA. *Internal assurance report*, a non-human actant, is another significant finding in this chapter that can support ASAPs and NASAPs to make materiality decisions in SERA. Internal assurance can make SER more credible by monitoring and reviewing the internal controls of the non-financial performance management systems regularly. Internal assurance can also consider stakeholders' engagement in materiality decisions appropriately and provide assistance to management in the external assurance process by considering the recommendations made by external assurers and initiating remedial actions. The need for ASAPs and NASAPs to *issue a 'Management report' before issuing the SERA statement* is also highlighted from the empirical findings and set out in this chapter. This report can explain in detail the criteria for materiality assessment which can become a source of evidence to enhance the validity of SERA statements and gain the confidence of users of SERA statements. This, again, is a non-human actant that is considered for the first time in this study. The duration of assurance is also highlighted in this chapter which is crucial for ensuring ASAPs and NASAPs can engage with all stakeholders to make materiality decisions.

The next chapter, 7 explains the key insights from the fieldwork in chapters 5 and 6 and combines the significant findings for discussion. The notions of translation, boundary objects, and non-human actants from ANT are embedded to unpack these key insights as an extension of prior research on materiality and stakeholder inclusiveness in SERA practice.

Chapter 7: DISCUSSION

7.1 Introduction

This penultimate chapter brings together key insights gathered from the fieldwork in chapters 5 and 6, while it elaborates on the considerations of *translation*, *non-human actants*, *boundary objects*, and other constructs borrowed from the writings of Latour (2005), Callon (1984) and Michael (2017). The key suggestion is that it is important to unpack the concept of materiality in SERA processes while considering the ‘complex amalgam’ of *heterogeneous flat associations* (Latour, 2005; Michael, 2017) that constitute such processes. The theoretical lens drives an in-depth analysis of complex associations, which manifests into the ‘*de-naturalisation*’ of the status quo, making ANT a unique framework (Barter & Bebbington, 2013). For this, the researcher had to make *no assumptions* and proceed with tracing human and non-human relationships and connections in the network using the notions of translation and boundary objects. The translation process is considered from the assessor’s perspective using a qualitative method with semi-structured interviews. This study is an advancement of prior research conducted by Edgley et al (2015) where the need for wider stakeholder views on the understanding of SERA materiality was a major limitation. Edgley et al (2015) conducted the research using semi-structured interviews with only ASAPs and NASAPs.

In this chapter, we will first revisit the research questions initially stated in Chapter 1, sub-section 1.5.1, and then link them to the major findings from empirical chapters 5 and 6.

7.2 Revisiting the Research Questions

This thesis has been guided by ANT using the notions of translation, boundary objects, and non-human actants to answer the two primary research questions, which are re-stated here:

RQ1: *How can organisations (management), assessors, and standard setters have stakeholder-inclusive processes and mechanisms in place to foster the true and fair view of SER and SERA?*

RQ 2: *How will materiality, completeness, and responsiveness to stakeholders in SERA enhance the credibility of sustainability reporting?*

The supporting research questions are:

- *How are key stakeholders included in the SERA process by ASAPs and NASAPs, by standard setters, and by management of reporting companies?*
- *How will SERA act as a means of improving the dialogic relationship between organisations and their stakeholders?*
- *Why is core materiality, linked to economic decision-making, necessary to adopt in a new reporting field that places corporate social responsibility at its heart?*
- *How is the concept of materiality in SERA different from materiality in financial statement audits?*
- *How has materiality been adopted in SERA so far?*
- *How have completeness and responsiveness been adopted in SERA so far?*

Using constructs of ANT to answer the two primary and supporting research questions, the researcher engaged with ASAPs and NASAPs, reporting companies, NGOs, and regulators to understand their voices and interpretations of 'sustainability' and 'assurance'. The semi-structured interviews were combined with critical analysis of assurance standards, GRI standards, and SERA statements and documents shared by the research participants. These non-human actants were also discussed by the researcher with the research participants to then make the interpretations. Earlier research in SERA practice probed into the understanding of the type of assurers, sustainability reporting materiality, and the need for external assurance using secondary evidence in the form of downloaded SERA statements (Jones & Solomon, 2010; Martínez-Ferrero & García-Sánchez, 2018; O'Dwyer et al., 2011). This study is the first to evaluate materiality in SERA using notions of translation and non-human actants from ANT, where ASAPs and NASAPs need to engage with external and internal stakeholders and other non-human actants as a singular collective to make materiality decisions and to perform SERA. This study is the first to detail how assurers consider materiality and probes into understanding how the secondary economic, social, and environmental (supply chain) impacts are considered. In addition, when engaging with assurers and stakeholders, this study identified material issues that were not considered by earlier researchers. The additional findings are in relation to the qualifications of ASAPs and NASAPs, the preparation of management reports, and the need for internal assurance. The following five sub-sections are the major findings from this study that the researcher chooses to highlight and discuss in this chapter.

7.2.1 Materiality in SERA Process

This study makes an in-depth evaluation of how materiality, a vital concept in the financial audit process, is entering a new non-accounting assurance arena (Canning et al., 2019; Edgley et al., 2015; Moroney & Trotman, 2016). Though SERA practice has evolved for more than two decades, the materiality construct, which is the essence of the credibility of the assurance statements, has been understudied. The researcher unpacks the limitations of determining or assessing materiality in SERA to show how assurers are not representing other stakeholders and hence cannot establish the Obligatory Passage Point (OPP) (Troshani et al., 2019) as explained in chapter 3, sub-section 3.3.2.1. This implies that ASAPs and NASAPs have not given all stakeholders and non-human actants their identities, which affects the stabilization of SERA practice. With ASAPs and NASAPs not engaging with stakeholders other than management, SERA materiality cannot be considered 'black boxed', making the SERA process more of a management capture (Latour, 2005; Wæraas & Nielsen, 2016). Materiality in SERA also can be considered a non-human actant in the SERA network and should be the central focus in the assurance process to enhance the credibility of SERA statements. This study is one of the first to focus on operationalising SERA materiality with the researcher probing into understanding the assurance practice from an assurer's vision and using the interpretations of assurers and stakeholders along with a review of SERA standards and reporting guidelines. SERA Materiality is based on the needs of varied stakeholders and overpowers professional and market logic used in the financial auditing materiality (Edgley et al., 2015). Most of the data in sustainability and environmental reports do not evolve from a Trial Balance based on *double-entry book-keeping*; hence, the material misstatement or omission risks are very different (Canning et al., 2019). Materiality in sustainability reports relates to companies reporting on the significant economic, social (health and safety, due wages, sweatshops, etc.), and environmental (emissions, pollution, global warming, etc.) impacts created by the business strategies implemented (Beske et al., 2020; Xiao & Shailer, 2021). This sub-section uses the empirical evidence analysed in chapter 6 to discuss the lacuna in SERA materiality decision-making. ASAPs and NASAPs do not decide materiality in SERA in the planning, performance, or conclusion stages but are rather decided by the management of reporting companies. The materiality criteria in the assurance standard ISAE 3000 are based on similar lines to financial auditing which is on a professional judgement basis, though it highlights meeting varied users' needs unlike in the financial auditing practice (Canning et al., 2019). AA1000 (APS and SES) assurance standard specifies more in-depth, the criteria for SERA materiality based on stakeholder engagement which is not applied correctly by assurers with them not representing the other

stakeholders and actants. These limitations in the assurance standards were brought out in the interviews with regulators where they specified how assurers had a lack of understanding of SERA materiality and the applicable standards. This is confirmed by Y – regulator:

“See where the assurers commit a mistake is for materiality. They are looking at water or climate change as a material issue; on stakeholder engagement, the assessor considers the community as the key stakeholder which is fine. But what is the issue of the community? The community has an issue of village development or education as one of the issues, but the assessor has considered the material issue as something else which is water. And the company is showing the assessor stakeholder engagement with the community on education. And then the result shown to the assessor is how they have followed a very good energy management Project whereby energy consumption is reduced by half. So that's the mistake that assurance guys do. So, the assessor needs to consider or pick a threat from the economic, environmental, and social, take one sample each, apply it across all the four principles of APS, and sort of correlate that with the SES requirement of the stakeholder. So, the assessor can understand the material issue, material stakeholder which could be an internal stakeholder also, then what has been the material impact because of this materiality? The assessor must confirm if the company has demonstrated any impact of these in the report or if it is only shown as part of the data collection, the consumption of X amount or X KL of water and this has no meaning because the assessor is not able to see what the impact is”

This lacuna in the SERA materiality assessment implies that assurers cannot guide reporting companies to meet the criteria stated in the assurance standards. There is also no guidance in the GRI standards for reporting companies to follow. When interviewed, the assurers were unable to comprehend SERA materiality decision-making and the need to engage with stakeholders to make materiality decisions. Both ASAPs and NASAPs did not elaborate on materiality assessment in SERA. These findings imply that assurers as main translators are not able to establish the OPP to stabilize SERA practice. It also implies that SERA practice is more of a management capture, reducing users' confidence in SERA statements. These findings using the ANT lens are an advancement of earlier research findings by Edgley (2015) as the researcher has interpreted the voices of stakeholders besides assurers and discussed the SERA standards with the human actors to interpret how materiality in SERA is assessed.

This study using the notion of translation, non-human actants, and boundary objects engaged with a wider array of stakeholders, analysed assurance standards and developed the materiality framework in chapter 6, section 6.2 for ASAPs and NASAPs to use which is based on stakeholder logic and which puts emphasis on impact-based reporting in sustainability reports. The framework focuses on assurers having a dialogic engagement through phone calls, emails, or site visits with internal and external stakeholders to evaluate the primary and secondary material impacts of

companies' business strategies. The framework also focuses on guiding reporting companies to disclose not only the financial impacts but the social and environmental direct and indirect impacts of non-financial performance. This engagement of assurers with stakeholders will assist ASAPs and NASAPs in identifying material misstatements or omissions at the planning, performance, and conclusion stages of SERA.

Materiality being 'malleable' is even more complex in non-financial reporting. 'Sustainability' and 'Assurance' is interpreted differently by each type of stakeholder making it crucial for assurers to have these dialogic engagements with all stakeholders to dilute the complexity of SERA materiality and achieve a more tailored and customized one. The notion of Boundary Objects supports the 'interpretive flexibility' (Briers & Chua, 2001; Channuntapipat et al., 2019; Star & Griesemer, 1989) to allow the generic materiality logic (professional and market) to extend to a more tailored and localized understanding (stakeholder logics). The researcher using the translation construct makes this significant contribution of highlighting how assurers are the main translators in SERA and do not represent all actants (human and non-human) in problematising SERA materiality (Callon, 1986; Latour, 2005; Michael, 2017). This also creates regulatory implications where the assurance standards (ISAE 3000 and AA1000) can be more explicit and generalised. The standards must emphasise the need for assurers to have a dialogic engagement with key stakeholders to understand the primary and secondary material impacts of the business strategies implemented by companies in relation to economic, social, and environmental responsibilities. In the empirical chapter 6, the researcher has brought out how a regulator in the interview confirms how material secondary impacts (environmental and social) which are less obvious are not taken into consideration by assurers even though the reporting organisation's business strategies considered the primary environmental, social, and economic impacts. These strategies when developed were not mapped to the secondary impacts at the supply chain level. With ASAPs and NASAPs lacking dialogic engagement with external stakeholders, materiality decisions are driven by management which can cause huge losses in billions of dollars to investors. These limitations in SERA practice have been diminishing users' confidence in SERA statements.

Materiality in financial auditing is based on various thresholds as stated by the IAASB (International Auditing and Assurance Standards Board) in the auditing standards. It uses a combination of professional and market logic. Professional logic supports financial audit and market logic for shareholders' benefit (Edgley et al., 2015; Jones et al., 2016; Torelli et al., 2020). SERA materiality, classified as social, is qualitative and is based on stakeholder logic in addition to professional and

market logic (Canning et al., 2019). This study further extends that the engagement should be extended to stakeholders in the supply chain to consider the secondary material impacts regarding social and environmental issues. These can be material and are currently mostly not considered even by the reporting companies. The assurers must engage with stakeholders in the supply chain through phone calls or emails and if possible, conduct annual site visits. Another credible option to bring down these risks is engaging with internal assurers at the planning and materiality assessment stages to assess the material secondary impacts at the supply chain level. ASAPs, NASAPs, and regulators strongly recommended internal assurance practices at the interviews. These stakeholders recommend the need for internal assurance to ensure efficient internal control systems in SER. Internal assurance can lower non-financial material risks of understatement or omissions of disclosures and impacts. With non-financial risks getting closely linked to financial risks, the long-term sustainability of companies is impacted. When interviewed, the assurers and regulators believed that internal assurance could mitigate these material risks, assist with timely corrective actions, and provide support to management to prepare sustainability reports in line with the requirements of ISAE 3000 and AA1000. Prior research looked at the options of internal assurers conducting SERA and issuing SERA statements to reduce costs (Peters & Romi, 2015). But this would result in a conflict of interest affecting the independence of assurers and lowering the credibility of SERA statements. Internal assurance can support the management of reporting companies to identify material issues and make rectifications before the external assurance is conducted which will add great value to reporting companies and enhance the confidence of users of SERA statements (DeSimone et al., 2021; Sharma et al., 2018). The researcher in tracing the SERA networks considered the importance of internal assurers and internal assurance reports and hence probed into understanding the extent of the practice.

Using the ANT construct of 'actants' where the assurer should also consider non-human elements in the translation process, 'materiality criteria' can be considered as a non-human actant. This has a significant implication for assurers to understand and use the assurance standards, ISAE3000 and AA1000 for materiality assessment. The materiality decision-making process should be a combination of a systems-based approach (professional and market logic) and stakeholder inclusiveness (stakeholder logic) to ensure material issues are aligned with strategy and company performance. Engagement with stakeholders, including the supply chain stakeholders, will help the assurers and management of reporting companies to adequately determine materiality, enhancing the credibility of SERA statements. Internal assurance can support reporting companies and

assurors to enforce stakeholder inclusiveness in the materiality decision-making and assessment process.

7.2.2 Stakeholder Inclusiveness in the SERA Process

The empirical evidence as illustrated in chapter 5 reveals conflicting views of assurors engaging with stakeholders. One of the ASAPs and NASAPs in the interviews confirmed that they have dialogic engagement with internal (employees, besides management) and external (community) stakeholders to understand the impacts of the initiatives undertaken by reporting companies. However, regulators confirmed that these engagements are subject to the reporting companies making decisions on which stakeholders to engage with and with what priority. These practices undermine the objectives of engaging with stakeholders to understand the material impacts resulting from business strategies. In contrast to these views, it was confirmed by another ASAP and three reporting companies and regulators at the interviews that both ASAPs and NASAPs have no direct engagement of any form with stakeholders besides with the management of companies. The only engagement, if any, is with supply chain stakeholders where assurors use indirect forms of one-way engagement in the form of desk verification, review of media reports, and assessing company policies and internal control systems. These conflicting views are traced to the prior year's literature, which echoes the same findings (Edgley et al., 2010; Manetti & Toccafondi, 2012). Prior literature on SERA materiality and stakeholder inclusiveness in making materiality decisions are limited (Canning et al., 2019; Edgley et al., 2015), with little investigation conducted to understand how assurors make materiality decisions in the SERA process. This is the first study using the ANT lens to perform the fieldwork with a wider range of stakeholders, as brought out in chapters 5 and 6, confirming the absence of a two-way dialogic engagement between assurors and stakeholders in the SERA process and in making materiality decisions. Dialogic engagement is where assurors use an inclusive model, where there are no constraints in selecting stakeholders to engage with, which is inherent and brings about transformation (Edgley et al., 2010). The empirical findings further confirm that assurors' engagement with supply chain stakeholders is only indirect and a one-way passive engagement. These findings have material regulatory implications that SERA statements are being overpowered by management interests, and material issues are being understated or omitted both in sustainability reports and in SERA statements. The regulatory implications flag the limitations of ISAE 3000 in terms of the absence of stakeholder logic criteria in the SERA materiality decision-making. Stakeholder logic is central to determining SERA materiality as users' varied needs determine the material issues in the non-financial reporting (Edgley et al.,

2015; Edgley et al., 2010; Jones & Solomon, 2010). Professional and market logic can only complement stakeholder logic and not replace it. Prior investigations on stakeholder engagement in SER and SERA have been limited (Darnall et al., 2009; Edgley et al., 2010; Manetti & Toccafondi, 2012), and were limited to interviews with accounting and consultant assurers only. The constructs, 'translation' and 'boundary objects' of the theoretical lens, as explained in Chapter 3, prompted the researcher to investigate this dialogic engagement with a range of key stakeholders, in addition to ASAPs and NASAPs. This investigation of assurers' dialogic engagement with stakeholders is crucial to unpack the 'SERA materiality' concept discussed above in sub-section 7.1. The wide range of users of sustainability reports makes it crucial for assurers to engage with stakeholders to reduce the risks of material omissions and misstatements at the SERA process's planning, verification, and conclusion stages. The credibility of SERA is enhanced when the SERA statements influence these diverse users' decisions. Assurers cannot perform in isolation of stakeholders as they represent them to identify material issues in the sustainability reports (Callon, 1986; Latour, 2005; Michael, 2017). This focus on stakeholder inclusiveness in the SERA process is supported by the construct of 'Obligatory Passage Point' in the theoretical lens explained in chapter 3 where the assurer creates the OPP when giving identities to other stakeholders who accept that the assurer can enhance the value of the sustainability reports (Channuntapipat et al., 2019; Troshani et al., 2019).

Using translation and boundary object concepts of ANT confirms earlier research findings of how stakeholder inclusivity in the SERA process fosters a closer and more accountable relationship (M. J. Jones & Solomon, 2010). The findings in this study assert that the two-way dialogic engagement between assurers and key stakeholders extending to the supply chain level through phone calls or emails or visits can act as a mechanism to enhance the transformation and validity in SERA materiality decisions and credibility of SERA statements. It is discussed in sub-section 7.1 above that even reporting companies while engaging with stakeholders do not consider them for materiality decision making. This study, using the theoretical construct of non-human actants as important in SERA practice, recommends how assurers can use management letters as discussed in chapter 6 to provide feedback to reporting companies on the assurance findings and the significant limitations in the reporting. This feedback can support companies in improving SER and promote the need for stakeholder inclusiveness mechanisms to be put in place to meet the needs of stakeholders. For this, the assurers must have their own two-way dialogic stakeholder mechanisms in place first to drive these changes in SER practices.

7.2.3 Qualifications of Assurors

SERA practice is not yet mandated and is performed by two types of assurors. Differentiation exists between ASAPs and NASAPs in terms of professional qualifications, assurance styles, adherence to assurance standards, and type of assurance statements (Casey & Grenier, 2015; Peters & Romi, 2015; Wong & Millington, 2014). These differences have been brought out in chapter 5, subsection 5.2, assurors' qualifications. There are conflicting views on the preferred type of assuror using prior research and the empirical evidence in this study. ASAPs and mostly the Big Four are valued for their reputational capital, professional independence, and assurance expertise. NASAPs are valued for their subject matter expertise and positive or reasonable form of assurance (Casey & Grenier, 2015; Peters & Romi, 2015; Wallage, 2000). This study is the first one to focus on the qualifications of assurors and has identified the material issues in existence that came to light using the ANT lens when the researcher engaged with varied stakeholders. 'Translation' construct unpacks the role of the assuror as the main translator who represents other stakeholders to validate the material contents of the sustainability reports (Callon, 1984; Justesen & Mouritsen, 2011; Latour, 2005). Latour (2005, p.217) explains this:

“So, an actor network is what is made to act by a large star-shaped web of mediators flowing in and out of it. It is made to exist by its many ties: attachments are first, actors are second”.

The assurors can lead and represent other actors (reporting company and other stakeholders) with a two-way dialogic engagement (Edgley et al., 2010) through these social ties and attachments which include non-human actants to bring about transformation in SER disclosures.

This study unpacks new findings - ASAPs and NASAPs, in most cases, are not complying with the appropriate qualifications needed to perform assurance which affects the objectivity of SERA and the confidence of users of SERA statements. Using the notion of non-human actants (Latour, 2005) and from the empirical evidence, the researcher highlights the material issues identified with assurance standards ISAE 3000 and AA1000. These standards are not bringing out strong enough, the qualifications criteria for sustainability reporting assurance. These issues in the assurance standards have a material implication of stakeholders having a lack of confidence in SERA practice and a higher possibility of investors losing billions of dollars in green investments. ISAE3000 and AA1000 make a mention of the qualifications but are not yet generally accepted standards for sustainability reporting assurance. The qualifications criteria in the standards are not adhered to or even understood adequately by accounting and non-accounting assurance firms. Using the

empirical evidence from interviews with regulators and assurers, the researcher addresses these material issues of lack of adequate qualifications for both ASAPs and NASAPs.

ASAPs using ISAE 3000 must be qualified chartered accountants besides having subject matter expertise. ISAE 3000 does not specify any other qualification criteria for assurers of non-financial or any other form of reporting assurance. From the interviews conducted with assurers and regulators, it was confirmed that most of the ASAPs are not qualified chartered accountants. Another significant limitation identified when engaging with stakeholders is that ASAPs operate in many cases from the advisory business units and not from the accounting business units. Again, this is not complying with ISAE 3000 which requires the accounting firm to be registered with IFAC (International Federation of Accountants), and the assurers must be members of IFAC or are qualified professional accountants. This lack of clarity of assurers' qualifications criteria in ISAE 3000 implies that most of the ASAPS, NASAPs, and accounting firms using ISAE 3000 and operating from their advisory units are not complying with the needed assurer's qualifications. One of the accounting assurers, the Big Four confirmed that in India, with sustainability/integrated reporting evolving even further, the regulatory body has been working on developing a standard for assurers' qualifications which was to be released by April 2021. One of the regulators in India also confirmed that this must happen globally, with investors and stakeholders considering assurance of SER a much-needed practice as non-financial risks are merging with financial risks.

AA1000 is used more by NASAPs and sometimes by ASAPs along with ISAE 3000. From the interviews with assurers and regulators, material issues relating to assurers' qualifications of NASAPs too were highlighted. The CSAP (Certified Sustainability Assurance Practitioner) qualifications were developed in AA1000AS V3 to increase assurers' proficiency, support them in engaging with stakeholders, and provide guidance to using the standard. One of the regulators highlighted how this standard has mentioned the requisite expertise and qualifications but how the standard has not specified a process for verifying the assurers' qualifications. The regulator confirms that while many NASAPs perform SERA, only one or two have obtained the necessary qualifications. Using the theoretical lens, the researcher engages with stakeholders to unpack a second material loophole in AA1000AS V3, where the qualification of the signing partner is not stated in the standard. These limitations in the standards cause major challenges, lowers the quality of assurance practice, and diminish stakeholder confidence, making SERA practice more of a management capture and a 'tick the box' exercise.

The assessor, the translator in the SERA process, enrolls other actants and gives them their identities in the SERA process, as explained in detail in chapter 3 (Callon, 1984; Channuntapipat et al., 2019). This makes it critical for the qualifications of ASAPs and NASAPs to be better articulated in the assurance standards, and to have a mechanism in place to verify these qualifications. If in place, these controls will enhance stakeholders' confidence to accept the assessors' identity and follow the OPP. Prior studies had not considered these issues using legitimacy, stakeholder, and agency theories (Andon et al., 2014; Channuntapipat et al., 2019; Helfaya et al., 2018). This study highlighted these material issues only after engaging with stakeholders and considering non-human actants together to understand how ASAPs and NASAPs perform SERA and provide legitimate SERA statements.

The independence of the assessor was also investigated when the researcher engaged with ASAPs, NASAPs, and other stakeholders. External assessors like in financial auditing perform SERA to give credibility to assurance statements and increase the confidence of stakeholders by meeting their needs (Peters & Romi, 2015; Wong & Millington, 2014). There are conflicting views on the independence of ASAPs and NASAPs. While ASAPs are considered to have professional independence, NASAPs are not considered to have this independence (Casey & Grenier, 2015; Wong & Millington, 2014). Prior literature speaks about the independence of assessors and the substantial variability in the level of independence. Though external assurance supports the independence of assessors and hence is considered more credible, in most cases, there is a management capture with assessors not making materiality decisions, absence of stakeholder inclusiveness in materiality decisions, and assessors not engaging with all stakeholders (Canning et al., 2019; Edgley et al., 2015; O'Dwyer & Owen, 2005). The researcher was keen to dig further into the independence of ASAPs and NASAPs using the ANT lens by engaging with them and reviewing the assurance standards. There is a distinct variability based on the type of assessor. Accounting firms provide assurance and consultancy services in the form of preparing sustainability reports and providing assurance. The ASAPs in the interviews confirmed that they do not provide assurance services and preparation of reports to the same client to avoid conflict of interests and independence issues. It was also revealed that partners from both assurance and consultancy divisions consult each other and exchange guidance. The NASAPs confirmed that they provide 99 percent assurance services only. Using a combination of prior literature and the empirical evidence from this study, the researcher interprets that there is management capture in SERA, which undermines the independence of both ASAPs and NASAPs. The SERA statements are addressed

to the management of reporting companies and not to users, and the type of assurance is mostly limited and not reasonable. There is no mention of assurers' qualifications in the SERA statements.

Independence is an extension of qualifications criteria and is a crucial factor driving the credibility of external assurance practice. The assurers are the translators that give identity to other stakeholders and represent them in stabilizing SERA practice (Latour, 2005; Michael, 2017; Wæraas & Nielsen, 2016). This subsection using the theoretical lens unpacks the significance of adequate qualifications and independence of assurers and the material issues in existence.

7.2.4 Role of Non-Human Actants

This sub-section unpacks how the researcher uses ANT to elucidate the role of non-human actants in the translation process to understand SERA practice. In this form of social accounting and assurance, non-human and human actants are part of the collective, which has a flat structure as explained in chapter 3. The social should not be analysed in miso, micro, or macro levels, but a flat structure of human and non-human actants subject to changes (Latour, 2005; Michael, 2017). The 'heterogeneous' collective of human and non-human actants in the network implies that there can be material issues in SERA if any actants are left out, sometimes because they are less obvious (Justesen & Mouritsen, 2011; Latour, 2005; Michael, 2017). The researcher when engaging with ASAPs, NASAPs, and other stakeholders, could comprehend how the issues in SERA practice can be traced to the limitations that exist in the social association of assurers, stakeholders, and non-human actants which need to be reassembled to bring about the translation (Callon, 1984; Latour, 2005). This sub-section highlights how SER and SERA standards, SERA statements, technology and other relevant non-human actants must be given identities for the assurers to represent all the actants and stabilize SERA practice (Channuntapipat et al., 2019).

The researcher confirms through semi-structured interviews with regulators and assurers that the GRI reporting guidelines do not mention the SERA standards, which results in negative implications. The first implication is reporting companies are preparing SER reports in isolation from the SERA standards criteria. The second implication is reporting companies are not aware of the criteria of SERA standards, and assurers have not communicated this to them. ISAE 3000 and AA1000 are not generally accepted standards and have differing criteria. While it is difficult to make these standards generally accepted with the varied needs of users, this study highlights the importance of the assurers enrolling all actants to make translation possible. In sub-section 7.3 above, the lack

of adequate assessor qualifications is discussed, and this can be traced again to assessors having a lack of understanding of SERA standards. The concept of materiality in SERA, which is discussed in sub-section 7.1, also relates to non-human actants in SERA practice. ISAE 3000 is not explicit on how materiality decisions are to be considered and the need for assessors to have a dialogic engagement with stakeholders. SERA is being performed more by ASAPs, who are using more professional judgement to assess materiality which the reporting companies decide. NASAPs also accept management's decisions on materiality. These material findings are confirmed by ASAPs, NASAPs, regulators, and NGOs in the interviews conducted and the empirical findings as set out in Chapter 5.

In engaging with stakeholders, the researcher emphasises the need for impact-based reporting in SER, which will make the reports more credible. The regulators confirmed the need for assessors to engage with supply chain stakeholders besides primary stakeholders to assess secondary material impacts of economic, environmental, and social responsibilities which can enhance the credibility of SERA statements. This is explained in detail in Chapter 6, sub-section 6.3. This calls for attention from regulators to make modifications in SERA standards to include guidance on the assessment of secondary impacts with stakeholder engagement. The researcher by focusing on non-human actants as part of the network, strongly recommends how assessors need to engage with stakeholders and discuss these issues and make recommendations for appropriate modifications in SERA standards.

This research using the notion of non-human actants from ANT investigates further why the SERA statements issued at the end of the assurance process are mostly limited or moderate. A reasonable or high level of assurance is rare, and this is confirmed by the interviews conducted with stakeholders and the verification of SERA statements. Qualifications of ASAPs and NASAPs are also not mentioned in the SERA statements. These material findings in respect of SERA statements imply the existence of a gap in SERA standards in relation to materiality assessment, assessors needing to have a dialogic engagement with stakeholders, and qualifications of assessors. These findings are confirmed in the interviews conducted and explained above in subsection 7.1. Prior research has not considered these issues as mostly secondary evidence in the form of assurance statements was considered in the research. Earlier research considered the types of assurance standards used, types of assessors, and the differentiation that exists between the two types of assessors (Channuntapipat et al., 2019; Edgley et al., 2015; Jones & Solomon, 2010).

After engaging with regulators, the researcher confirms the development of a new assurance standard in India for non-financial reporting assurance to be released shortly. This standard is developed by the Bureau of Indian Standards for the last four and half years and will be internationalized. The Indian regulatory body has approached international delegates and they have shown keen interest to consider this. Management Report is another significant non-human element in the SERA process that has not been considered in prior research (Cerbone & Maroun, 2020; Edgley et al., 2015; Edgley et al., 2010). This non-human element must be considered in the translation process to give credibility and enhance the value of SERA statements. ASAPs and NASAPs have been issuing management reports but these are optional in the current SERA practice because of the additional cost involved. ISAE 3000 does not mention the management report, though AA1000 has stated the need for management reports that must be issued before issuing the assurance statements. These formal management reports are the basis of SERA statements issued at the end of the assurance. These reports must record material issues, observations, and recommendations for which action needs to be taken and referred to by both assurers and reporting companies in the subsequent reporting year to consider materiality assessment. Management reports can also prompt the need for assurers to engage with key stakeholders. This implies that appropriate modifications must be made in SERA standards to include management reports and should be made mandatory.

Internal assurance was considered in earlier research as an option for external assurance (Jones & Solomon, 2010). Some reporting companies consider SERA more of a management tool to ensure efficiency in internal control management systems. As non-financial risks increased and integrated with financial risks, most reporting companies opted for SERA to be performed by external assurers to enhance the reporting companies' accountability to stakeholders and to meet the needs of the users of SERA statements (Junior et al., 2014; Peters & Romi, 2015; Wong & Millington, 2014). By engaging with stakeholders using the ANT lens, this study brings on board the need for internal assurance to support reporting companies in preparing sustainability reports, following the criteria of assurance standards and assisting in materiality decisions with stakeholder inclusiveness.

This study has not considered technology in depth as a non-human element which is a limitation of this study and can be considered as part of future research. This is brought out in chapter 8 as a limitation.

7.2.5 Boundary Objects

This sub-section presents how 'sustainability' and 'assurance' as boundary objects can be used as mediators by assurers to communicate and work together with stakeholders and non-human actants in performing the assurance and in issuing the SERA statements (Leigh Star, 2010). These boundary objects are part of the translation process, which assists assurers in stabilising the SERA process by engaging and negotiating with stakeholders to represent them (Channuntapipat et al., 2019; Star & Griesemer, 1989). The varied range of users of sustainability reports makes it crucial for assurers to engage with stakeholders to minimise the assurance gap. The users' needs vary based on their interpretation of sustainability and assurance, and the assurer, as the translator, needs to customize these boundary objects to enhance the validity of SERA statements (Briers & Chua, 2001) and meet the needs of users. This is the first study to consider a wider range of stakeholders and engage with them to understand their interpretations of sustainability and assurance and how ASAPs and NASAPs make the negotiations.

This study unpacks the issues of SERA materiality decision-making and dialogic stakeholder engagement in subsections 7.2.1 and 7.2.2 above. Similarly, issues pertaining to the qualifications of the assurers were discussed in sub-section 7.2.3. These issues were considered and probed into by the researcher using the constructs of boundary objects and translation where the network of stakeholders was interviewed along with a review of reporting guidelines and assurance standards. The empirical evidence indicates how ASAPs and NASAPs have not considered the varying interpretations of 'sustainability' and 'assurance' by stakeholders and the need to make negotiations by engaging with stakeholders. The lack of dialogic engagement confirms the widening of the assurance gap, which undermines the need for assurance in the first place. Users' expectations of SERA statements are not being met, and management capture continues to exist in sustainability reporting and assurance. These findings using the notion of 'boundary objects' from the ANT lens has regulatory implications. ASAPs and NASAPs use different assurance standards, and with generally accepted standards not feasible due to the varied need of stakeholders, the need for assurers to engage with stakeholders and to represent them to bridge the wide gap in the varied interpretations of sustainability and assurance is crucial. From the empirical evidence in Chapter 6, ASAPs confirmed the need for capacity building to provide guidance to employees of reporting companies at various sites to prepare for assurance. The reporting companies are unaware of the assurance standards criteria or the process. They are of the opinion it is number verification, especially at sites, like financial auditing. Similarly, regulators confirmed in the interviews the need

for assurors to engage with stakeholders to assess both primary and secondary impacts of sustainability disclosures and support them as to how the reporting companies can communicate these impacts to stakeholders. Using boundary objects as part of the translation process has provided guidance to this study to investigate further the level of dialogic engagement in assessing SERA materiality, investigate the need for assurors to consider secondary impacts, and the need to consider reporting standards and assurance standards as non-human actants which are important in SERA process.

7.3 Conclusion

This chapter has brought together the five significant findings of the research to produce detailed descriptions of materiality in SERA, stakeholder inclusiveness, qualifications of assurors, the role of non-human actants, and boundary objects. These significant findings are in relation to the two primary research questions of materiality decisions in SERA and stakeholder inclusiveness in materiality decisions and in SERA practice. Using the notions of ANT, the researcher has traced the relationships and connections of the SERA network to investigate the role of ASAPs and NASAPs as representing stakeholders. The engagement with a wide array of stakeholders using the notion of the translation process and non-human actants has guided the researcher to unpack the significant issues in materiality decisions in SERA and significant issues in ASAPs and NASAPs having a dialogic engagement with stakeholders. Actor-network-theory guided the researcher to address the issues of materiality in SERA and stakeholder inclusiveness in materiality and in SERA practice from a different perspective to prior research (Canning et al., 2019; Edgley et al., 2015). Non-human actants like SERA standards, materiality criteria, management reports, internal assurance reports, and qualification of assurors were considered when engaging with stakeholders and were also reviewed by the researcher before the semi-structured interviews. Boundary Objects - 'sustainability and 'assurance' - guided the researcher to unpack the issues of material impacts, especially the secondary ones being omitted or materially misstated. The researcher developed the materiality assessment model to advise ASAPs, NASAPs, and stakeholders of the need for stakeholder logic and market and professional logic in SERA practice.

CHAPTER 8. CONTRIBUTIONS AND CONCLUSIONS

8.1 Introduction

This chapter binds together the various threads of this thesis to lay out its overall contribution to academia across four specific areas:

- a) Its empirical contributions in materiality assessment, stakeholder inclusiveness, and assurers qualifications in SERA practice.
- b) Its theoretical contribution in using the Actor-Network Theory perspective to understand materiality and stakeholder inclusiveness.
- c) Its methodological contribution by using primary evidence from two sources as a collective - semi-structured interviews with a wide array of stakeholders and a review of documents. And finally
- d) Its contribution to practice by developing a materiality assessment framework. The chapter continues with sections on the limitations of the study, future research opportunities, personal reflection on the research journey through the four years, and a section with the conclusion.

8.2 Empirical Contribution

Prior research considered understanding SERA practice and how it has evolved. There are significant findings identified by earlier researchers to understand various issues in SER and SERA. The issues unpacked in earlier literature are the need for external assurance, types of assurers, variability between the assurers, perceived stakeholder influences, the role of stakeholders in SERA, and the levels of assurance (Manetti & Toccafondi, 2012; Martínez-Ferrero & García-Sánchez, 2018; O'Dwyer et al., 2011; Perego, 2009; Wong & Millington, 2014). These are discussed in Chapter 2 above in detail.

This study has focused on extending the limited prior research on materiality assessment in SERA (Canning et al., 2019; Edgley et al., 2015), stakeholder inclusiveness in materiality and in SERA practice (Edgley et al., 2010; Manetti & Toccafondi, 2012). The aim of this study was to extend prior knowledge using a new social theory (ANT) lens to understand relationships between assurers and stakeholders to make SERA practice more legitimate, considering the assurance is on non-financial reporting. This social theory enabled the researcher to use both, the interpretations of a wide

spectrum of stakeholders and the consideration of non-human actants together as a collective, which was considered as primary evidence (Callon, 1986; Latour, 2005). This study conducted further research on stakeholder views about materiality and stakeholder inclusiveness so that the research findings could provide guidance to assurors, regulators, reporting companies, and investors (Edgley et al., 2015).

This study's empirical contributions can be presented in terms of unpacking *nine major issues* as detailed in the sub-sections below.

8.2.1 ASAPs and NASAPs Were Not Able to Provide Information on Materiality Assessment in SERA

Materiality is considered the central focus of this study as this is what determines the credibility of SERA statements. While materiality in SERA was very briefly researched earlier through semi-structured interviews only with assurors, this study has conducted semi-structured interviews to interpret the voices of ASAPs and NASAPs along with the interpretation of the voices of other key stakeholders. By engaging with a wider spectrum of stakeholders, this study has investigated the relationship that exists between assurors and stakeholders and the level of dialogic engagement between them.

A significant issue to unwrap as an empirical contribution is ASAPs and NASAPs could not provide information on materiality assessment in SERA as observed when the researcher engaged with them. The assurors acknowledged that they were not engaging with stakeholders other than with the management of reporting companies. They were in self-denial of the need for this dialogic engagement by accepting from management that they should be engaging with stakeholders and not assurors, resulting in a professional capture. Materiality in SERA is a complex phenomenon; hence, only the dialogic engagement with stakeholders by ASAPs, NASAPs, and reporting companies can provide legitimacy to the process of assessing or determining materiality.

8.2.2 Secondary Impacts are Ignored in Determining Materiality in SER and SERA

By engaging with a wide array of stakeholders besides assurors, the researcher makes another major empirical contribution by unpacking the need for ASAPs and NASAPs to consider the secondary impacts in the supply chain when determining or assessing materiality. These secondary

impacts have not been evaluated by reporting companies nor by the assurers. While materiality in SERA has been considered as a management capture, the secondary impacts were not addressed by prior research. These omissions can cause huge losses to investors and this issue was unwrapped when the researcher engaged with stakeholders. This study contributes to unpacking the lack of engagement with supply chain stakeholders to understand indirect impacts, which results in materiality being influenced only by management and professional capture.

8.2.3 Assurers Not Complying with SERA (ISAE 3000 and AA1000) Standards to Determine Materiality

This is another major issue unpacked by this study by engaging with stakeholders other than assurers, where it was voiced that ASAPs and NASAPs do not consider the criteria in the SERA standards for assessing materiality. It was also voiced out that the ISAE 3000 guides ASAPs to be inclined more toward the financial auditing principles for materiality decisions in SERA and hence is unclear about stakeholder engagement to determine materiality. The GRI standards also do not make mention of the SERA standards. The assurers are not clear about the criteria of materiality assessment in SERA and have been accepting the materiality decisions made by management. This leads to other major issues that got identified, why ASAPs mostly issue limited SERA statements and make no qualifications in the statements. These have also not been considered in prior research.

8.2.4 Lack of Stakeholder Inclusiveness With a Two-Way Dialogic Engagement

This study brings out the critical issue of ASAPs and NASAPs not engaging with external stakeholders using a two-way dialogic engagement. By engaging with a wide array of stakeholders besides assurers, the researcher has also unpacked this material issue, which undermines the objectives of assurance of sustainability reports. The passive engagement in reviewing policies, media reports, and internal controls has been unsuccessful in considering SERA materiality appropriately. The indirect impacts have been omitted by reporting companies and assurers in materiality assessments. The reporting companies even if they engage with stakeholders, do not consider them for decision-making.

8.2.5 Lack of Adoption of Internal Assurance

After engaging with assurers and stakeholders, this study highlighted the lack of adoption of internal assurance to complement external assurance and enhance the credibility of SERA statements by considering materiality appropriately. ASAPs, NASAPs, and regulators voiced their interpretations of how internal assurers can engage with the supply chain and other external stakeholders and ensure internal controls are in place.

8.2.6 Lack of Adequate Qualifications for ASAPS and NASAPs

This major issue has been highlighted in this study which needs immediate attention to make SERA a credible practice. ASAPS and NASAPs are under-qualified as per the criteria stated in ISAE 3000 and AA1000, which undermines the assurer's independence. ISAE 3000 and AA1000 are not explicit in the qualifications criteria for ASAPS and NASAPs. With the lack of adequate qualifications and independence, even though they are external assurers, these limitations undermine the objectives of SERA, further reducing the confidence of users of SERA statements and can lead to billions of dollars in losses to investors. The qualifications of ASAPS and NASAPs are not mentioned in the SERA statements.

8.2.7 The SERA Statements Are Not Addressed to Stakeholders

SERA statements issued at the end of the assurance process are addressed to the management of reporting companies and not to stakeholders. The purpose of assurance is to give credibility to sustainability reports by asserting that the needs of users of the reports are met and material misstatements or omissions are identified and laid out. These limitations are making SERA practice a 'tick in the box' exercise and supporting the organisation's management to enhance its reputation to the public.

8.2.8 Lack of Consideration of Non-Human Actants as Important and Part of the Network Relationships

This is another major empirical contribution using the perspective of ANT. Using the notions of non-human actants from ANT and the need to consider these actants as part of the network and integrate them to form a collective is highlighted in this study. Significant issues using the notion of non-human actants as highlighted in this study are, lack of consideration of management reports by assurors and the need for them to be issued mandatorily, the assurance statements not being addressed to stakeholders, the need for amendments in the GRI and SERA standards to consider qualifications of assurors, secondary sustainability impacts, materiality assessment with stakeholder inclusiveness.

8.2.9 The Consideration of Boundary Objects to Create Stability in SERA Practice

'Sustainability' and 'Assurance', being considered as boundary objects using ANT highlights the need for ASAPs and NASAPs to become aware of the differing interpretations of these objects by stakeholders. Hence the two-way dialogic engagement with stakeholders becomes crucial to understand these differences to enable ASAPs and NASAPs to negotiate adequately and bind the stakeholders' views, even though these terms can have different meanings to each type of stakeholder. These negotiations are needed for ASAPs and NASAPs to consider materiality assessment adequately. The lack of engagement with stakeholders can hinder the negotiation process on the interpretations of the boundary objects, which affects the legitimacy of the assurance process and the credibility of SERA statements.

8.3 Theoretical Contribution

This study has not developed a new theoretical framework or amended the theoretical framework used and hence has not directly made a theoretical contribution. The contributions made by this study are highlighted below.

8.3.1 A New Perspective to Understand Materiality Assessment, Stakeholder Inclusiveness, and SERA Practice

This is the only study conducted to understand materiality assessment and stakeholder inclusiveness in SERA using the Actor-Network Theory lens. Using the notions of this social theory, though very complex, provided a different perspective to understanding SERA practice and unpacking major issues in materiality assessment and stakeholder inclusiveness in SERA, which are the central focus of this study. Using the notions of ANT, the researcher was guided to engage with assurers and stakeholders, and non-human actants as a network to understand relationships and their interpretations. Using this complex theory and engaging with stakeholders besides assurers resulted in other empirical contributions. Significant issues in the qualifications of ASAPs and NASAPs, the need for a management report, the need for internal assurance, amendments in SERA and reporting standards, and the isolation of non-human actants from human actors were highlighted as empirical contributions.

Except for one Ph.D. thesis by Charika (2019), which has used this social theory to understand SERA practice in the UK, there is no other prior research done using ANT. The researcher used this theory to conduct the research in India, an emerging economy where sustainability reporting and assurance is gaining strong ground.

8.4 Methodological Contribution

There has been no direct methodological contribution to this study. However, ANT lens is used for the first time to understand materiality, completeness, and accountability in the non-financial assurance practice.

This study is one of the very few research studies to use qualitative research methodology and conduct semi-structured interviews to collect empirical research data (Canning et al., 2019; C. Edgley et al., 2015a; C. R. Edgley et al., 2010) to understand the issues in SERA practice. This research is the first one to conduct a field study by engaging with a wide spectrum of stakeholders as research participants rather than being limited to only ASAPs and NASAPs and was recommended in prior research to obtain a deeper understanding of materiality in SERA practice (Edgley et al., 2015). Using the ANT lens, only primary evidence is used for data collection, giving a wider perspective of the significant issues in SERA practice. Earlier research considered mostly

a review of secondary evidence in the form of downloaded SERA statements (Junior et al., 2014; Perego & Kolk, 2012; Peters & Romi, 2015; Wong et al., 2016). Using the notions of 'translation' and 'boundary objects' from the ANT lens, the researcher traced the negotiations and connections between all actants, with assurers being the main translators. Besides human actors, non-human actants are also considered as primary evidence using this theoretical framework and were considered together with human actors (Latour, 2005; Michael, 2017). Hence, ANT provides a new perspective to understanding the important constructs in SERA practice. The amalgam of actants gives identity even to the less obvious actants in the network which results in completeness and accountability for materiality assessment and stakeholder inclusiveness which is the focus of this study. The need for the assurer to engage with the supply chain and other external stakeholders is crucial for assessing material secondary impacts. Sustainability and Assurance as 'Boundary Objects' are important constructs of ANT used in this study. These boundary objects complement the translation process to assist the assurer in understanding how ASAPs and NASAPs are engaging with stakeholders and making negotiations to represent them and stabilise the materiality assessment and SERA process.

8.5 Practical Contribution

This research has made practical contributions through the following recommendations, which will be presented to the research participants after this thesis is submitted. This was agreed upon when inviting research participants to participate in this study.

8.5.1 Assist ASAPs and NASAPs

This study is making a practical contribution with the following recommendations:

8.5.1.1 Materiality Framework for ASAPs and NASAPs is Developed

This study has developed a materiality framework as shown in chapter 6, section 6.3, which is based on stakeholder logic for ASAPs and NASAPs to consider. The framework focuses on assurers having a dialogic engagement through phone calls, emails, or site visits with internal and external stakeholders to evaluate the primary and secondary material impacts of companies' business strategies. The framework also focuses on guiding reporting companies to disclose not only the financial impacts but also the social and environmental impacts of non-financial

performance. This engagement of assurers with stakeholders will enable ASAPs and NASAPs to identify material misstatements or omissions at the planning, performance, and conclusion stages of SERA.

8.5.1.2 Management Report to Reporting Companies

This study recommends that ASAPs and NASAPs should adopt the practice of issuing management reports before issuing the SERA statements and form the basis of issuing SERA statements. These were highly recommended when the researcher engaged with stakeholders. Only some of the ASAPs currently follow this practice as it is optional, due to additional costs.

This study recommends that these reports must keep material issues on record, including observations and recommendations for which action needs to be taken and referred by both assurers and reporting companies in the subsequent reporting year to consider materiality assessment. The management report can also prompt the need for assurers to engage with key stakeholders.

8.5.1.3 Address SERA Statements to Stakeholders

This study is making a recommendation to amend the assurance standards and makes it mandatory for ASAPs and NASAPs to address SERA statements to stakeholders and not only to the management of reporting companies. This will prompt assurers and reporting companies to engage with stakeholders and have a dialogic relationship, which will enhance the credibility of the SERA process and statements.

8.5.2 Assist Standard-Setting Bodies (IAASB and AccountAbility) or Regulators

This study is making a practical contribution by making the following recommendations:

8.5.2.1 Amendments to SERA Standards (ISAE 3000 and AA1000)

This study by engaging with stakeholders in addition to the assurers, recommends to the assurance standard bodies, IAASB and AccountAbility to make amendments in ISAE 3000 and AA1000 to make it more explicit for ASAPs and NASAPs to apply them and for assurers to guide reporting

companies for materiality decisions, stakeholder engagement, qualifications of assurers, levels of assurance and qualifications in SERA statements. It is difficult to generalize the standards considering the varying needs of stakeholders and sustainability reporting being qualitative and complex, unlike financial reporting. This study recommends that assurance standards emphasise the need for assurers to have a dialogic engagement with key stakeholders to understand the primary and secondary material impacts of the business strategies implemented by companies in relation to economic, social, and environmental responsibilities.

8.5.2.2 Address SERA Statements to Stakeholders

This study is making a recommendation to amend the assurance standards and make it mandatory to address SERA statements to stakeholders and not only to the management of reporting companies. This will prompt assurers and reporting companies to engage with stakeholders and have a dialogic relationship, which will enhance the credibility of SERA process and statements.

8.5.2.3 Management Report to Reporting Companies

This study is making a recommendation to amend ISAE 3000 to include the need for management letters to be issued before issuing the SERA statements and should be made mandatory.

The study recommends these reports must keep on record material issues, observations and recommendations for which action needs to be taken and referred to by both assurers and reporting companies in the subsequent reporting year to consider materiality assessment. Management reports can also prompt the need for assurers to engage with key stakeholders.

AA1000 assurance standard makes a mention of the management report. However, it is not mandatory and hence also needs to be amended.

8.5.2.4 Materiality Framework is Developed

This study has developed a materiality framework as shown in Chapter 6, section 6.3 which is based on stakeholder logic for ASAPs and NASAPs to consider. The framework focuses on assurers having a dialogic engagement in the form of phone calls, emails, or site visits with internal and external stakeholders to evaluate the primary and secondary material impacts of companies'

business strategies. The framework also focuses on guiding reporting companies to disclose not only the financial impacts but the social and environmental impacts of non-financial performance. This engagement of assurers with stakeholders will enable ASAPs and NASAPs to identify material misstatements or omissions at the planning, performance, and conclusion stages of SERA.

8.5.3 Assist Management of Reporting Companies

This study is making a practical contribution by making the following recommendations:

8.5.3.1 Adoption of Internal Assurance

This study recommends the adoption of internal assurance practices for sustainability and environmental reporting. This can support assurers and reporting companies as non-financial reporting risks are closely linked to financial risks and affect the long-term sustainability of companies. Internal assurers can assist in assessing materiality at the supply chain levels and reduce the costs of external assurance.

8.5.3.2 Materiality Framework is Developed

This study has developed a materiality framework as shown in chapter 6, section 6.3 which is based on stakeholder logic for ASAPs and NASAPs to consider. The framework focuses on assurers having a dialogic engagement in the form of phone calls, emails, or site visits with internal and external stakeholders to evaluate the primary and secondary material impacts of companies' business strategies. The framework also focuses on guiding reporting companies to disclose not only the financial impacts but the social and environmental impacts of non-financial performance. This engagement of assurers with stakeholders will assist ASAPs and NASAPs in identifying material misstatements or omissions at the planning, performance, and conclusion stages of SERA.

8.5.3.3 Management Report to Reporting Companies

This study recommends ASAPs and NASAPs adopt the practice of issuing management reports before issuing the SERA statements and should form the basis of issuing SERA statements. These were highly recommended when the researcher engaged with stakeholders. This practice is

followed in the current practice by some of the ASAPs as it is optional due to the additional costs involved.

This study recommends these reports must keep on record material issues, observations, and recommendations for which action needs to be taken and referred to by both assurers and reporting companies in the subsequent reporting year to consider materiality assessment. Management reports can also prompt the need for assurers to engage with key stakeholders.

8.6 Limitations

Interpretive research using the qualitative method of collecting primary evidence from semi-structured interviews has significant advantages because the research uses the live experiences of research participants to make interpretations. Like other methods, there are limitations to this study.

Firstly, research participants are selected from a wide spectrum of stakeholders rather than several participants from a single organisation. This is a big advantage of this study and an extension of prior research. The limitation of this approach is the lack of statistical, random selection of participants resulting in a limited transferability of the empirical findings. This approach also limits the study from making very broad generalisations. SERA being at its nascent has made it possible for the researcher to make generalisations with the empirical findings and literature review.

The second limitation is the element of bias that cannot be eliminated because the research design uses semi-structured interviews as the primary method of data collection. The researcher exercised great care to ensure this would have minimal impact and hence selected the wider spectrum of stakeholders and not many participants from the same organisation. There is some element of bias where the participants could be telling the researcher what they felt the researcher wanted to hear. The researcher ensured the research participants were qualified and had a good understanding of the topic, but it cannot be fully denied of this limitation.

The third limitation is the use of ANT theory to guide the research design. This helped the researcher to look at materiality, stakeholder inclusiveness, and SERA practice from a different practice. However, if the researcher considered other social theories, other material issues could be laid out.

The final limitation is the use of only semi-structured interviews with individuals and not focus groups. The researcher considered this but with the pandemic commencing at the time and the work model going through a big change for research participants, it was a challenge to organize focus group interviews. The element of bias could have been reduced even further by using a mix of individuals and focus groups on collecting data.

8.7 Future Research

The significant findings in this research study have prompted the researcher to make recommendations for further research which are outside the scope of this study. They are laid out below:

8.7.1 Assurors Qualifications Criteria for Further Investigation

The researcher, after engaging with regulators, was made aware of a major issue in terms of the lack of adequate qualifications for ASAPs, NASAPs, and assurance firms in the Indian context, which is an emerging economy. This has a direct impact on the independence of the assurator. The researcher would like to consider for further research the qualifications and the independence of the assurator both in India and in other advanced countries (the UK or Hong Kong) by undertaking an in-depth study and developing a case study for each of the jurisdictions and making a comparative analysis. This is a significant area of research, especially since there are no generally accepted standards in the current practice. The qualifications of ASAPs, NASAPs, and assurance firms are one of the critical premises to legitimize the assurance practice.

8.7.2 Types of Assurors and Their Varying Differences

This is another interesting area of future research the researcher is recommending. There has been limited research in this area in the mainstream literature (Farooq & de Villiers, 2020), and with SERA practice evolving, the researcher is keen to consider further research to investigate the differences and how it can impact the effectiveness of the assurance process which may be positive or negative. One of the earlier research projects also considered stakeholder panels and academic institutions as assurors performing independent third-party review (Junior et al., 2014). Further research is recommended to understand the criteria, the qualifications, and the independence of stakeholder

panels and academic institutions as assurers. The levels of assurance provided by each of the types of assurers can be researched further.

8.7.3 Technology as a Non-Human Actant and its Relationship with Other Actors

Using the notions of ANT, non-human actants are considered material along with human actors, and their relationships in the network enable the assurer as the main translator to give them identities and get their support to represent them. Technology is a significant non-human actant that needs further research as it was outside the scope of this study. Currently, technology dominates all forms of business; hence, even in SERA, further research is needed to understand the influence of this non-human actant and its relationship with other actors in the network.

8.8 Personal Reflection

I now reflect on my DBA journey and what led me to make this decision to undertake this in the first place. The journey has been challenging, but at the same time, it has provided me with very interesting and meaningful experiences through these 4 years. Being a financial auditor with one of the Big Four for several years, I had never earlier thought of pursuing a DBA. Being a mother created a pathway to consider academia as a career which I took up in 2011 and has been very satisfying and enriching. This prompted me to expand my horizons by pursuing a Ph.D. or a DBA career. Having a combination of both industry and academic experience, a DBA appeared to be a rewarding choice. I wish to share three important aspects of this journey. Firstly, academic research was a whole new concept to me but very enriching and exciting and led me to a deep understanding of my topic. Secondly, my personal achievement from completing the DBA and my aspiration to make further contributions in this field, and lastly, the challenges during my research journey which has been almost right through during Covid 19.

A doctorate is essentially a very long and demanding journey in terms of time, it requires a curious and critical mindset, perseverance, strong communication skills, and hard work. The research journey helped me develop most of these research skills and has enhanced my communication and networking skills even further. Hence hard work or intellectual capacity alone cannot bring success. Going through each stage in the DBA program has helped me develop an appreciation for the reviews and valuable feedback received initially from my supervisors and complemented with peer-reviewed academic inputs. My supervisors have supported me strongly in developing my research

skills and overcoming hurdles through this journey. I have been very fortunate to get the opportunity to present my work, especially the theoretical framework (ANT) and my research findings at the CSEAR 2021 conference, at the DBA 2022 Research Colloquium jointly held by Aston University, Cranfield University, and Henley Business School – University of Reading, and at internal academic faculty seminars at Aston. The experience of presenting at these forums has been very extremely rewarding with constructive feedback and questions to support the ideas and suggest improvements which have helped my thought process further. I have always received positive and useful feedback at each session which has encouraged my curiosity to grow further even after the DBA.

On a personal level, I have gained tremendously from the DBA journey. I am more confident in exploring complex theoretical frameworks. Using Actor-Network Theory for my research has helped me accept the challenges of using complex theories and staying focused even when it occasionally seems overwhelming. I have got the hunger to take up further research after my DBA knowing well that I can contribute to industry and academia and hence to society at large. My plans are to stay in academia and provide consultancy to industry, especially in sustainability-related matters and assurance of sustainability reports.

Finally, I would like to share my reflection on pursuing a DBA in the pandemic era. Initially, the Covid 19 crisis was a very large concern. I felt very disappointed and felt hopeless in my data collection endeavor, especially since I chose another country (India), while I am based in HK. However, the support from my research participants was an eye-opener. Besides, I had to get out of my comfort zone, and it provided the opportunity to consider technology as part of research and I had absolutely no issues communicating and engaging closely with my research participants. It was difficult for the research participants in India to make time from their busy schedules as they were new to adopting the new 'Work from Home' model and had to cope with its complexities. I felt uncertain in the earlier period of my DBA and to be able to complete my DBA in a really good time is a huge achievement for me. To cope with the complexities of real-world problems needs an expansive and positive approach which involves often embracing uncertainty, irrationality, and subjectivity. It has been a humbling experience and all the challenges above have made the journey worthwhile and memorable.

8.9 Conclusion

This thesis began by bringing out the need for SERA by third-party assurers to enhance the value of sustainability and environmental reports which have been adopted by most companies globally over the last two decades. Companies have additional responsibilities to meet stakeholders' needs and not only shareholders' needs for long-term sustainability, and this has made SER and SERA practices crucial to enhance their reputation and manage risks. The mainstream literature highlighted significant issues in SERA practice which was affecting the credibility of SERA statements. This study extended on those major issues and focused on operationalizing materiality in SERA and stakeholder inclusiveness in materiality assessment in SERA. Other major issues considered in this study are qualifications of ASAPs and NASAPs, the scope of SERA, the need to consider human and non-human actants as a collective, boundary objects where 'sustainability' and 'assurance' are interpreted differently by stakeholders and hence negotiations needed to be made by ASAPs and NASAPs with other actants. This study considered these issues in SERA through the Actor-Network theory lens and engaged closely with a wide spectrum of stakeholders – ASAPs, NASAPs, regulatory bodies, reporting companies, and NGOs. In addition, a review of non-human actants – SERA statements, SER reports, SERA standards, and other publicly available documents were reviewed together with engaging with human actors. The non-human actants were also discussed with the research participants.

In operationalizing materiality in SERA and the need for assurers to have a dialogic engagement with stakeholders, firstly the lack of transparency, completeness, and accountability was emphasized and made clearer in this study. Secondly, the need for consideration of secondary impacts which are less obvious and exist in the supply chain stakeholders is highlighted using the ANT lens where actors, human and non-human are a collective and a network. The assurers are the main actors as translators, and they need to engage closely with all actants (human and non-human) to enroll them and create the obligatory passage point to perform SERA and issue credible assurance statements. Thirdly, the materiality assessment model was developed to highlight the need for stakeholder logic along with market and professional logic used in financial auditing. Fourthly, this thesis highlighted the need for assurers to negotiate with other stakeholders and non-human actants to ensure 'sustainability' and 'assurance' as boundary objects are considered adequate to make materiality decisions and enhance transparency in the SERA process. Lastly, the qualifications of assurers and the assurance firms not complying with SERA standards which

could lead to billions of losses were highlighted with the researcher using the notions of translation, network, human and non-human actants, and boundary objects.

While this study makes contributions to knowledge across empirics, practice, theory, and methodology, the researcher would like to emphasize the key contribution to the literature which is unwrapping the major issue of the lack of adequate qualifications of ASAPs and NASAPs. These are explained in detail in Chapter 5. The practical implications arising from this material issue are significant and varied. Firstly, the credibility of SERA practice is affected. Secondly, SERA statements are not meeting the needs of stakeholders. Thirdly, the possibility of material misstatements and material omissions is very high. Fourthly, the independence of the assesor is at risk. Fifthly, it implies that ASAPs and NASAPs are not exercising due care in performing materiality assessment, assurance, and in issuing credible SERA statements. Sixthly, this could lead to huge losses to investors and society. The seventh one is this will lead to an increase in non-financial risks, and this affects the financial risks for companies. The eighth one is how the planet is continuing to be damaged further. The ninth one is about how regulators and policymakers must take on more responsibilities and finally, it also implies that SERA standards are not guiding the assurers and reporting companies.

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APPENDICES

APPENDIX 1 – LITERATURE SEARCH PROCESS

The literature search was focused on materiality in SERA, and stakeholder inclusiveness in SERA practice over the last 20 years. With SERA being still at a nascent stage and very limited prior research, the search extended to target research on SERA practice in general. The process involved the following:

- Four databases were accessed: EBSCO, Scopus, Proquest, and Web of Science. This was done using the Aston Library Smart Search and Google Scholar.
- Keywords were used to search the database which was:
 - ❖ “Sustainability Assurance”
 - ❖ “Materiality in Sustainability Assurance”
 - ❖ “Materiality in Sustainability and Environmental Reporting”
 - ❖ “Stakeholder Engagement in Sustainability Assurance”
 - ❖ “Sustainability and Environmental Reporting Assurance”
- The review of prior literature was initially limited to peer-reviewed reputed academic journals like the American Accounting Association (AAA), Accounting, Auditing, and Accountability Journal (AAAJ), Accounting Forum, Accounting, Organisations, and Society (AOS), British Accounting Review, Contemporary Accounting Research and Journal of Business Ethics. With a limited number of research papers available, the review was extended to other journals also.
- The search was limited from the year 2000 to date.

The second part of the search focused on papers relating to Actor-Network Theory. The same databases were accessed. The third part of the search focused on papers that used other social theories.

APPENDIX 2 – EMAIL TO INTERVIEWEES

Dear (Potential Research Participant),

I trust all is well with you. By way of introduction, I am Flavia Rodricks living in Hong Kong. I am pursuing my doctorate studies at Aston University and my research topic is Sustainability and Environmental Reporting Assurance (SERA). I am passionate and excited about this topic as I have always been greatly concerned and interested in how companies can contribute to other key stakeholders (besides investors) and give back to the planet.

There is a lot of academic research in sustainability reporting, however research in the assurance aspect (SERA) is at its infancy stage. There is very little research in SERA where researchers have analysed the assurance reports and provided their findings. I aim to better understand SERA by personally engaging with assurers and other key stakeholders (management of companies preparing the sustainability reports, NGOs, regulatory bodies, and policymakers) through semi-structured interviews. These interviews will be open-ended questions to make it comfortable for participants. I have chosen India being an emerging economy and Corporate Social Responsibility is practiced to a large extent. In addition, I come from India, and I am keen to understand how the reporting and assurance process happens there. I will contribute to the research participants by sharing a summary of my findings which will provide some benefit in terms of benchmarking their activities in the assurance process against other assurers in the sector.

In terms of confidentiality, a code will be attached to all the data you provide to maintain confidentiality. Your personal data (name and contact details) will only be used if the researcher needs to contact you to arrange study visits or collect data by phone. Analysis of your data will be undertaken using coded data.

The data collected will be stored on a secure and backed up 'Box' folder which can be accessed only by the researcher and the supervisor. Your data will also be protected in accordance with The General Data Protection Regulation 2016/679 (GDPR). The data recorded will only be stored on the laptop and the back-up disk which is owned by the researcher and is password protected.

I know there is a burden in terms of taking your time to participate especially in these difficult pandemic times. The researcher has considered this and will organize the interviews on a day and time which is convenient to you and will ensure the interviews do not exceed sixty minutes. I will keep it to 2 sessions.

I will be grateful if I can speak with you or with the concerned partner in your organisation and provide more details. I look forward to having your organisation as my research participant.

Thank You and Kind regards,

Flavia Rodricks
DBA Student,
Aston University

APPENDIX 3 – Interviews Protocols with Assurors and Stakeholders

Researcher engaging with ASAPs and NASAPs using semi-structured interviews

1. What is the structure of the assurance process and the stages involved?
2. How do you as an assurator propose or agree on the scope of the assurance engagement with the clients? (Any documents that I can get access to?)
3. In the case of clients with weak internal control systems, considering SER is new to them, who decides on the scope of assurance? Does the client also influence these decisions? (Any documents that I can get access to?)
4. How is materiality decided or assessed? (Any documents that I can have a look at?)
5. In terms of materiality in SERA, do you make the decisions, or do you take into consideration what the client proposes?
6. What do you as an assurator perceive as best practices with your clients? Some examples?
7. What do you perceive as the main challenges or concerns in the assurance process?
8. Are the stages of the assurance process similar for all the SERA engagements? If not, what are the differences?
9. Do you issue a management report for every client? Or is it a choice? (Any documents that I can get access to?)
10. What kind of training do sustainability reporting assurers go through?
11. How are the assurers equipped to read the sustainability reports? Are Specialists used?
12. Have you ever been involved with the reporting process (to any extent) for the reports that you provide assurance services?
13. How do you deal with clients with a weak sustainability reporting system, prior to conducting the assurance?
14. As assurers, are you involved in setting the SDGs for companies?

15. How do client stakeholders affect the assurance process and materiality decisions?
16. How do you select/engage with a group of stakeholders to be involved in the assurance process? (Is it decided by the client?) (Any documents for me to get an access to?)
17. In terms of the supply chain, upstream and downstream of the client, how do you look at this in the assurance process? How do you consider the impacts on clients products/customers/stakeholders? How are the boundary protocols decided?
18. Are there challenges in engaging with client stakeholders? Do the clients have a say here?
19. How is it decided to issue a limited/reasonable opinion in the assurers report?
20. Which assurance standards are used and why?
21. Are there any challenges in applying the standards to the sustainability assurance engagements?
22. Are there any differences in opinion between team members performing assurance? If yes, how are these settled?
23. ISAE 3000 – specifies the audit should be done by qualified auditors. How is this ensured?
24. Do companies also use internal assurance for sustainability and environmental reporting?
25. What about the responsiveness? Is there a communication to stakeholders and a confirmation from stakeholders to the client/assuror? (Any documents available for me to have a look at?).

Researcher engaging with reporting companies using semi-structured interviews

1. What are the main activities of your organization?
2. Please explain briefly how sustainability reporting is being done in your organisation?
3. When did your organization commence sustainability reporting?
4. How is the reporting team formed for this purpose?
5. Is sustainability reporting mandatory?

6. When did your organization commence getting the reports assured by an external assurator?
7. How does the reporting team understand the requirements of assurance? Is there any form of training provided to the team in terms of assurance standards?
8. How do you select the assurator?
9. Who decides the scope of assurance?
10. Internal control system for reporting – is this discussed and checked by the assurator?
11. How do you connect with stakeholders like NGOs, Regulators, Community? (Any documentation that I can get an access to?)
12. Besides your organisation, how are the other key stakeholders involved in the assurance process? (Is any documentation available for me to get access to?)
13. How does the assurator engage with key stakeholders as part of the assurance process? (Any documentation available?)
14. Are there any challenges faced by the company or by the assurator in engaging with stakeholders?
15. How would you deal with any challenges or concerns in the assurance process?
16. In preparing the reports, do you consult the assurator?
17. Do you involve the assurator in setting the SDGs for the company?
18. Do you receive a management report from the assurator? Do you request for one?
19. How is it decided in terms of issuing a limited/reasonable assurance statement?
20. How is materiality decided for reporting and for assurance?
21. Which assurance standards are used and why? Who makes this decision?
22. Are there any challenges faced by the assurator in applying the standards to the sustainability assurance engagements?

23. Do you feel the need to have an internal assurance team and perform internal assurance?
24. When is the assurance performed each year? What is the duration?
25. Are the auditors the same for the financial statements audit and sustainability reporting assurance?
26. Do you change the assurers after a certain period?

Researcher engaging with reporting company outside India, having an NGO In India at the Supply Chain Level using semi-structured interviews

1. What are the main activities of your organisation?
2. How is the NGO connected with your organisation?
3. How do you communicate with this NGO based in India and how often?
4. How do you connect with the farmers in India and how often?
5. What are the activities of your subsidiary in India?
6. Is your connection with the farmers and the NGO reported in your sustainability report?
7. Can I have access to documents that you use to communicate with the NGO and the farmers?
8. I would like to understand about Sustainability Reporting and the team that handles this process.
9. Is sustainability reporting mandatory?
10. Do you get the sustainability reports assured?
11. How do you select the assessor?
12. What is the process involved?
13. Who decides the scope of assurance?

14. Internal control system for reporting – is this discussed and checked by the assurator?
15. How are key stakeholders involved in the assurance process?
16. Do you recommend to the assurator which group of stakeholders to be involved in the assurance process?
17. Are there any challenges in engaging with your stakeholders?
18. What do you perceive as main challenges or concerns in the assurance process?
19. Do you receive a management report from the assurator? Do you request for one?
20. What kind of training does your sustainability reporting team go through in terms of preparing the sustainability reports? In terms of understanding the assurance standards used by the assurator, is there any training conducted for the sustainability reporting team?
21. Have you involved the assurator with the reporting process (to any extent)?
22. Do you involve the assurator in setting the SDG's for the company?
23. How is it decided to issue a limited/reasonable opinion in the assurors report?
24. How is materiality decided for reporting and for assurance?
25. Which assurance standards are used and why? Who makes this decision?
26. Are there any challenges faced by the assurator in applying the standards to the sustainability assurance engagements?
27. Do you have an internal assurance team?
28. When is the assurance performed?
29. Do you change the assurors after a certain period?

Researcher engaging with regulators/Policy Makers using semi-structured interviews

1. I would like to know how are you engaged in SERA process?

2. What is the assurance process for SERA and the stages involved?
3. How does an assessor propose or agree the scope of an assurance engagement with the client?
4. What do you as a regulator perceive as best practices in SERA? Please share some examples.
5. What do you perceive as main challenges or concerns in the assurance process?
6. What kind of training do sustainability reporting assessors go through?
7. How are the assessors equipped to read the sustainability reports? Are specialists also used by assessors?
8. How do ASAPs and NASAPs deal with clients with a weak sustainability reporting system, prior to conducting the assurance?
9. Are assessors permitted to be involved in setting the SDG's for reporting companies?
10. How do client stakeholders influence the assurance process?
11. How do ASAPs and NASAPs select/engage with a group of stakeholders to be involved in the assurance process?
12. Are there challenges faced by assessors in engaging with client stakeholders?
13. How is it decided to issue a limited/reasonable opinion in the assessors report?
14. How is materiality in SERA decided?
15. Which assurance standards are used by ASAPs and NASAPs? How is this decision made?
16. Are there any challenges faced by ASAPs and NASAPs in applying the standards to sustainability assurance engagements?
17. Is there a need to make amendments to SERA standards?
18. Do ASAPs and NASAPs use an independent assurance engagement review partner?

19. How are site visits planned by ASAPs and NASAPs?

Researcher engaging with standard-setting bodies for reporting companies using Email

1. In two or three sentences, can your organisation please explain to me how you consider the SERA process? Do you consider assurance to be useful and should it be mandated?
2. How do you consider the assurance process being conducted by assurers (accounting and non- accounting)?
3. In terms of the scope of the assurance engagement, please give me your inputs regarding the fact that management of reporting companies make this decision?
4. In terms of materiality in SER and SERA, what are your inputs?
5. In terms of materiality at supply chain level, how should that be dealt with?
6. How does your organisation consider that assurers use ISAE 3000 and AA1000 assurance standards? Do you have any inputs to share in terms of accounting assurers using both the standards and non-accounting assurers using only AA1000 standards in most assurance engagements?
7. How does your organisation consider qualification of assurers conducting the assurance process? Do you have any inputs on the adequate qualifications for assurers or your inputs on the qualifications of assurers stated in the SERA standards ?
8. Does GRI consider that the assurers must undergo training to conduct the assurance and to be able to read the sustainability reports?
9. Does GRI support the fact that Internal Assurance must become a part of sustainability reporting practices like Internal Auditing?
10. Please state your views on the type of sustainability assurance statements issued by assurers (Reasonable/Limited and High/Moderate).
11. How does GRI look at management makes the decision on the type of assurance statements to be issued?

12. I would like to get your inputs on stakeholder (internal and external) engagement in the assurance process.
13. Kindly give your inputs on materiality decisions for reporting and assurance.
14. Kindly give your inputs on stakeholder engagement in materiality decisions.
15. How does GRI consider the duration of the assurance process should be?

Researcher engaging with NGOs using semi-structured interviews

1. I would like to understand about your organisation and what are your activities?
2. How are you connected with reporting companies?
3. What is the extent you are consulted and what is your voice with SER and SERA?
4. How are you connected with the farmers and other stakeholders?
5. To what extent are you consulted by reporting companies and by assurers?
6. Do assurers engage with you and how?
7. Can you share some of the documents of engagement with reporting companies and stakeholders?
8. How are you engaged in the SERA process?
9. How do you perceive SER and SERA processes?
10. How do you perceive materiality in SER and SERA should be decided?
11. What are the challenges faced by you to engage with reporting companies?
12. What are the challenges faced by you to engage with assurers?
13. How can you influence the assurance process?
14. What are your views on SERA standards and the reporting guidelines?
15. How can you influence the standard setting process?

APPENDIX 4 – Sample Field Note for Stakeholder Interview

Regulator Interview # 4 (10th April 2021)

Overall logistics:

- Meeting took place using MS Teams due to the pandemic and travel from Hong Kong was restricted.
- The meeting took place as per scheduled time.
- There was no interruptions or technical issues.
- The research participant was at ease and fully engaged throughout.
- Overall duration of the interview was a little more than 60 minutes.
- The participant willingly agreed for the interview to be recorded.
- Two recording devices were used. The recorder on MS Teams and the iPhone with a recording app as a backup.
- Consent form was not signed even after a follow up.
- Some useful documents were shared on a condition they are kept secured.

Immediately interesting points that arose:

- This regulator had contradictory inputs to ASAPs and NASAPs on the SERA process.
- Very experienced person and worked earlier with the Big Four accounting firms
- Very thorough knowledge and was ready to share his opinion on the major issues of SERA practice
- Brought out significant issues that the researcher could investigate further
- Very supportive and wanted the inputs brought out to educate ASAPs, NASAPs, standard setting bodies and policy makers the need to make amendments in SERA standards and reporting guidelines.
- Was very vocal and in fact led the entire interview and engagement
- Documents were sent to researcher prior to the meeting and then discussed in detail.

