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Enterprise and supplier development as a sustainability construct in mining communities

Applied Research Project Proposal

submitted by

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ABSTRACT

Sustainability is an integral part of mining in South Africa as the sector grapples with criticism that enough is not being done to support development of mining communities. Enterprise and supplier development (ESD) is one of the ways in which the mining sector contributes to development of businesses operating in the host communities as well as those supplying the operations. These activities are intended to promote entrepreneurship and enable these enterprises to create jobs through provision of support, training, mentorship and funding.

This paper investigated whether mining companies' ESD programmes and the way they are implemented contribute to sustainable enterprises and suppliers in South African mining communities. This was done by analysing content of several reports of mining companies to establish the intention of these companies with respect to establishment of these programmes and the outcomes they are achieving. This was then followed by interviews with beneficiaries of this programmes to gauge whether there is alignment between the companies and the beneficiaries in terms of what constitutes sustainability as well as to determine whether the beneficiaries find value in these activities. With the research questions aimed at accessing thoughts, feelings, experiences and opinions of research participants, the research methodology employed was qualitative. These were then analysed, common themes established and interpretations made around these themes were discussed.

A notable finding is that while there is an agreement in terms of what constitutes sustainability, there is a challenge in terms of access to markets – i.e. the exposure and possible exploitation of available supply chain opportunities by these enterprises to enable them to grow.

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SUPPLEMENTARY INFORMATION

Project format:	Research article
Nominated journal:	The Southern African Journal of Entrepreneurship and Small Business Management
Supplementary files:	e.g. Data collection instrument
	Schedule of interview question

INTRODUCTION

Small, medium and micro enterprises (SMMEs) play a major role in the South African economy with respect to promoting and advancing social and economic development in the rural regions of South Africa (Enaifoghe, 2023). SMME's help to promote exports, output, and nurture entrepreneurship (Mashavira & Chipunza, 2021). About 2.68-million people are owners of SMMEs in South Africa and therefore employ themselves and others (SEDA, 2023). According to the Small Business Institute, there are about 250 000 formal employing SMMEs in South Africa, constituting about 98.5% of the number of formal firms in the economy (Small Business Institute, 2018). These enterprises employ 50 to 60% of the workforce and contribute 34% of GDP (Adspace Studio, 2022).

The South African business landscape operates within a socio-political environment that is transformative. This means that businesses in South Africa have to navigate transformation issues typified by regulatory and legislative instruments. These include industry charters, codes and scorecards that are geared towards attainment of the Broad-Based Black Economic Empowerment (BBBEE) goals.

The aim of BBBEE is to transform the economy and enable meaningful participation of black people in the economy (Shai, Molefinyana, & Quinot, 2019). The BBBEE Act goes further to include other categories of people – youth, women and people with disabilities, and people living in rural areas – as targeted beneficiaries of this legislation.

In the instance of the mining sector, many of which operate within host communities in rural towns in South Africa, the BBBEE charter is aimed at increasing the extent to which communities, workers, cooperatives, and other collective enterprises own and manage existing and new enterprises and increase their access to economic activities, infrastructure, and skills training. The charter also works to enable access of economic activities to rural communities and investment programmes that will lead to sustainable development and improvement on livelihoods (Shai, Molefinyana, & Quinot, 2019).

Implementation of the ESD programmes is as much a compliance issue as it is a sustainability construct. This means sustainability can be seen through the lens of ESD, i.e., the ability of the sector to create and develop enterprises utilising the industry value chains. The sector's capability to foster entrepreneurship among the historically disadvantaged individuals living in host communities is also an important factor. This is a never-ending empowerment process with a multiplier effect of creating small enterprises that cuts across all elements of the BBBEE framework (Moagi, 2015).

Research Purpose

South Africa's transformation project is not adequate to generate prosperity and economic justice (Bell, Goga, Mondliwa, & Roberts, 2018). Therefore, the charter is unable to deal with the country's 2020s challenges. Employment and improving the living conditions of host communities should be the ultimate objective of the efforts by the government as well as companies operating in the mining sector (Ololade & Annegarn, 2013). Development and promotion of SMMEs should be a key strategic thrust for the government and private sector to deal with the societal challenges of poverty, joblessness and inequality.

Supplier development is aimed at improving the supplier's performance for the benefit of the buying organisation (Moagi, 2015). Supplier development includes efforts to increase the performance and/or capabilities of the supplier to meet the organisation's short and/or long-term supply needs.

The extent to which large organisations in the mining sector design, implement and achieve the desired outcomes in their ESD programmes is a key indicator for compliance with the codes. The design, implementation, delivery and measurement of outcomes of the ESD initiatives is imperative. The impact of these efforts can be measured through the capacity of the enterprises or the entrepreneurial activity to create jobs, skill the youth and increase their revenue.

The purpose of this research is to determine whether mining companies' ESD efforts are achieving sustainability objectives on society in terms of job creation,

eradication of poverty and sustainable livelihoods that the organisation, communities and government are collectively aiming for.

Problem statement

Mining companies have established enterprise and supplier development programmes to enhance entrepreneurship and support SMMEs operating in their host communities. As a major economic sector in South Africa, the mining industry possesses resources and distinct competencies through which it can drive development of enterprises and entrepreneurship within host communities (Moagi, 2015). Despite the mining industry spending significant resources on ESD, a significant number of SMMEs in South Africa fail within five years. In previously disadvantaged communities – areas where the mining host communities are located – only 1% of businesses progress from employing less than 5 people to having staff of 10 or more (TGS South Africa, 2020).

The study will therefore investigate whether the ESD programmes are designed and implemented in a way that supports enterprises to be sustainable, grow and create employment in the host communities.

Research objectives

The research objective is to assess whether ESD programmes provided by mining corporates can be used by entrepreneurs based in mining host communities to sustain their SMMEs, and therefore enabling creation of sustainable livelihoods within these communities. It is also to determine if an effective engagement exists between the companies and the communities in which these suppliers and enterprises are based and therefore if there is a common view on what constitutes sustainability between host community entrepreneurs on one hand and mining companies on the other. Ultimately the research aims to establish whether the ESD programmes are designed, implemented and delivered in a way that they directly complement other sustainability efforts and are effective in terms of improving livelihoods in the mining communities.

Research questions

In order to investigate whether mining companies' ESD programmes and the manner in which they are implemented contributes to sustainable enterprises and effective entrepreneurship in the host communities, the main questions that the research aims to answer are:

a) To what extent do entrepreneurs in host communities participate in these programmes and what value do they get from this participation?
b) How effective is the engagement between mining companies and host communities in terms of meeting the expectations of the entrepreneurs that mining companies should support their enterprises to be sustainable businesses?

Significance of the research

Continued misalignment between the industry's view of sustainability versus what the stakeholders actually witness on the ground has potential to create mistrust between these stakeholders (Ololade & Annegarn, 2013).

This research allows for an understanding of the mining companies' perspective in terms of how they articulate their motives, practices and operational processes with respect to sustainability and how they aim to create social impact in the communities in which they operate (Prno, 2013).

This research will help provide a basis for future design of stakeholder engagements, co-creation of ESD programmes that will enable effective participation and enhancement of positive outcomes from these programmes.

Delimitations

Delimitations concern definitions that set boundaries for research in order for the study's aims and objectives not to become impossible to achieve (Theofanidis & Fountouki, 2018). This means that delimitations enable the study to be focused and relevant to the various research parameters such as its objectives, questions and

sample. The delimitations in this research involved the industry within which the participants operated, their geographic location and the growth stage of their businesses.

- **Industry:** The research focused on enterprises that are suppliers to the mining industry for primary data collection in terms of interviews with the participants. Collection of secondary data was made from publicly available corporate reports of sampled mining companies.
- **Geographic location:** The sample concerned only SMMEs that are based within host communities in the mining sector, which are mainly in the rural areas of Limpopo, North West, Mpumalanga and the Northern Cape.
- **Growth Stage:** The entrepreneurs interviewed for this research run businesses which are at the lower level of the growth stage, slightly above the start-up phase (Figure 1). At the time of the interviews, they were participants in at least on ESD programme run by the mines that are based in these entrepreneurs' host communities.

Assumptions

Assumptions that are "essentially issues, ideas, or positions found anywhere from the beginning of the study design to the final report. These issues, ideas or positions are taken for granted and viewed as reasonable and widely accepted (Theofanidis & Fountouki, 2018).

The study assumes that there is open engagement between the mining companies and the host communities in which they run their operations in terms of implementation of sustainability programmes. This is because for the mine to operate in a particular area, the company would need to be granted a mining right, which by design requires consultation with the affected communities. The mine also would need to have a 'social licence to operate', which would help the operations to avoid risk and conflict (Prno, 2013). The research further assumes that this engagement would lead to a common understanding between the mining

companies and the communities that ESD falls with the realm of sustainability activities that are implemented by these companies.

The study also assumes that the occurrence of corruption to enable entrepreneurs to participate in the ESD programme is insignificant. In addition, the study assumes that enterprises participating in these programmes are registered businesses that are compliant with various regulations and laws including tax, labour and other sector-specific requirements. This emanates from the fact that participation in these programmes requires a verification that either the entrepreneur or the business's registered address falls within the host communities.

The research also assumed that research participants are conversant in English, notwithstanding their disparate levels of education, skills and abilities to run their enterprises. The emails required for consent, the interview itself and the transcription were all in English. It is therefore assumed that they understood why they were selected to participate in the study and what was required of them for the study.

LITERATURE REVIEW:

Introduction

Stakeholder theories suggest that an organisation is a contested terrain with divergent stakeholder interests that corporate managers must deal with (Cobb, 2019). Therefore management of stakeholders – shareholders, employees and communities must be appropriate to respond to three attributes of stakeholders – power, legitimacy and urgency. Key considerations that an organisation should look at, in terms of stakeholder theory, are the purpose of the organisation and the responsibility of managers to the organisation's stakeholders (Freeman, Wicks, & Parmar, 2004). The purpose allows managers to articulate and clarify on the value they create. It is also to discern the common interest that brings the stakeholders together. The responsibility for managers is to be clear on the kinds of relationships that they want to cultivate with stakeholders to deliver on this purpose. It is therefore the duty and responsibility of corporate managers to develop relationships, inspire stakeholders, and create environment and communities where all stakeholders work together to deliver value towards the organisation's purpose.

Legitimacy theory

Jones, Felps, & Bigley (2007) argue that ethics are at the core of stakeholder theories. This means that an organisation founded on an ethical culture adopts moral obligations to address, in some way, the normatively legitimate claims of stakeholders. Ethics is about regard for others instead of regard for self in thought and behaviour. Therefore, stakeholder culture, which is deeply rooted in ethics, enables development of solutions to stakeholder problems and management of relationships with stakeholders (Jones, Felps, & & Bigley, 2007). Stakeholder culture has a bearing on how employees and managers of an organisation respond to stakeholder issues and concerns (Jones, Felps, & & Bigley, 2007). Stakeholder pressure has an impact on how an organisation applies ethics codes in strategic decisions (Sezek & Koufopoulos, 2012). According to Sezek & Koufopoulos (2012), application of these ethics codes have both internal and external benefits for the

organisation. Within a continuum of five categories of stakeholder cultures posited – amoral, agency, corporate egoist, instrumentalist, moralist and altruist – it is the latter two that have genuine concern for interest of all corporate stakeholders. In particular, legitimacy is the driver of salience for managers of these organisations (Jones, Felps, & & Bigley, 2007). Mitchell, Lee & Agle (2017) examined relationships among the stakeholder attributes of power, salience, urgency and legitimacy with CEO values and found occurrence of a strong relationship between the CEO values and salience (Mitchell, Lee, & Agle, 2017). However, none was found between salience and financial performance. De Villiers, Low, & Samkin (2014) argue that while reporting came as a result of societal pressures on these organisations, it is now a gauge of legitimacy for many companies by stakeholders. For this reason, these companies are able to mobilise resources, including finance and labour for their operations. The relationship between actual sustainability performance and disclosure is still a subject of research (Hummel & Schlick, 2016). However, legitimacy theory suggest that companies employ sustainability disclosures to improve on their public perception of their performance on sustainability.

The idea of what constitutes value needs to be evaluated and managers ought to measure value from the perspective of the stakeholders that create it, instead of focusing on economic measures of organisational performance (Harrison & & Wicks, 2013). The stakeholder perspective of value enables managers to engage better, gain insight from their stakeholders and improve on their offering to service the needs of their stakeholders. To link the stakeholder relationships and organisational strategy and financial performance, five major stakeholder areas are important to a firm's operations. These are employees, the natural environment, workplace diversity, customers and issues of product safety, and community relations (Berman, Wicks, Kotha, & Jones, 1999). As societal norms and expectations evolve, pressure to disclose on sustainability issues also increase. This is in consistency with the legitimacy aspect of stakeholder theory in that mining companies would react to legitimacy threats with additional disclosure (De Villiers, Low, & Sampkin, 2014).

When applied to sustainability issues relating to mining operations in South Africa, this theory provides and understanding of why and how mining should engage their stakeholders, particularly the host communities in which they run their mining operations. Their organisational reports need to demonstrate inclusive and open engagement with these communities before decisions are made. This theory is therefore applied in the analysis of secondary data contained in these reports.

Resource-based view theory

Development of SMMEs and innovation in relation to the delivery of this development can be achieved through application of Resource Based View theory. How an organisation manages, deploys and integrates its resources to realise innovation insofar as it relates to development of enterprises is imperative (Hafeez, Shariff, & Lazim, 2012). Availability of resources will also enhance entrepreneurial activity in SMMEs as it will enhance the entrepreneurs' propensity to take risk and innovate. This also links to creation of a culture that helps identify opportunities, exploit them and create new markets for the entrepreneur (Hafeez, Shariff, & Lazim, 2012). The impact of a social enterprise depends on its capabilities to engage stakeholders, attract government support, and generate income (Bacq & Eddleston, 2018). Larger firms in a study on the impact of environmental, social and governance disclosures were "found to be displaying higher capability to convert their social performance into competitive advantage" (Sharma, Bhattacharya, & Thukral, 2019). Through the study, Sharma, Bhattacharya, & Thukral (2019) argue that there is a "shift in the focus of governments, regulators, investors and corporations to a more 'socially responsible' behaviour by firms in addition to profit maximisation". The study by Sharma, Bhattacharya, & Thukral (2019) utilises the resource-based view to link the corporate social responsibility reporting and profitability of firms. Using the resource-based view lens, it found that firms in the healthcare and energy sectors in India have significant competitive advantage with higher environmental performance. This study demonstrates the usefulness of the resource-based view in analysing firms' response to sustainability, environmental, social and governance issues, and how these affect financial performance of the firms. Bacq & Eddleston (2018) argue that:

a) the capability to engage stakeholders positively relates to the scale of social impact for social enterprises,
b) the capability to attract government support positively relates to the scale of social impact for social enterprises, and
c) the capability to generate earned-income positively relates to the scale of social impact for social enterprises.

According to these authors, the resource-based view theory has found support for the relationships between organisational capabilities and scale of social impact. It has also demonstrated that stewardship culture can either compensate for lack of capabilities or enhance capability effectives for a social enterprise.

According to Bell, Goga, Mondliwa, & Roberts (2018), for prosperity and inclusive economic participation to occur at host communities for mining operations, South Africa needs to invest in capabilities of individuals, firms and communities. Investment in productive capacity as well as rewards for innovation and creativity should be made through a strategy that brings together resources including technology, development finance and incentives (Bell, Goga, Mondliwa, & Roberts, 2018).

For this study the resource-based view is useful in explaining why availability and deployment of resources is important for enhancement of entrepreneurial activity. Resources are an important enabler for these entrepreneurs to identify opportunities, exploit them and create new markets. In this research, this theory is used in delineating the thematic areas that run across the mining sector for implementation of the ESD programmes when analysing the research findings.

Stakeholder and market orientation theory

Freeman, Wicks, & Parmar (2004) posit that stakeholder theory asserts that economic value is created through collective action and cooperation with an aim to improve stakeholders' circumstances. The authors argue that stakeholder collective action emerge as a result of three factors, i.e. mobilising structures, corporate opportunities and framing processes. It allows for individual stakeholders to

coalesce around one stakeholder identity, interest and common goals. Stakeholder collective action also enhances stakeholder influence on the organisation, as without it, individuals would not be having a coherent interest and corporate managers would find this interest to be inconsequential (Freeman, Wicks, & Parmar, 2004). One way to exert influence on the organisation is through the leverage of resources. However, this would require some form of collective action for these resources to be amassed and utilised for this purpose. Freeman, Wicks, & Parmar (2004) list five key ways through which stakeholder recognition can be facilitated:

a) provision of a shared interest, orientation and common goals towards the corporate
b) coordination of resources among individuals
c) enablement of information sharing among individuals
d) effective communication of stakeholders group sentiment
e) implementation of stakeholder strategic response to corporate actions

Duesing (2013) suggests integrating stakeholder orientation and market orientation theories in dealing with sustainability. He argues that stakeholder orientation reflects in the behaviours within the organisation that treats stakeholder groupings in a way that reinforces achievement of the organisation's long-term objectives. This results in the organisation achieving a higher performance. Stakeholder orientation informs that the task of management is to serve the stakeholder and so integrating these two orientations will result in better performance (Duesing, 2013) in relation to enterprise and supplier development. The implication of integrating these orientations for SMMEs is that they can network, cooperate and create larger market presence in their competition with large competitors (Duesing, 2013). A well-designed supplier development programme will create and maintain such a network and improve various supplier capabilities. This will in turn assist the organisation to improve its performance (Moagi, 2015).

Taken together, the stakeholder and market theory are used to demonstrate that the customer in this instance the enterprise being served by a mining company, should be at the centre. Therefore, in analysing the content of the organisational

reports, as well as the data derived from the interview process, the centredness of the SMMEs would be checked during the sampling process. This would also assist in determining which organisation report would be used for data collection and analysis.

Empirical literature review

Sustainability refers to doing business without negatively impacting the environment, community, or society as a whole. It mainly addresses two factors in business – the effect the business has on the environment and the effect it has on society (Spiliakos, 2018). As a sustainability outcome, a well designed and implemented ESD programme benefits mining companies' respective host communities while assisting the company to achieve compliance to BBBEE codes. It also enables the organisations to gain legitimacy in the eyes of stakeholders.

In the mining sector, this will contribute to a stable and sustainable host community economy, characterised by viable and prosperous SMMEs. These SMMEs create jobs and contribute towards eradicating poverty and inequality on a national scale (Moagi, 2015). Through them, the host communities are able to take advantage of economic opportunities and make an improvement in their living conditions and livelihoods (Hafeez, Shariff, & Lazim, 2012).

Mining companies put a significant effort to comply with regulatory requirements for their operations in terms of the sustainability issues (Ololade & Annegarn, 2013). This is evidenced by these companies' increasing utilisation of sustainability reports to share information.

Communities hosting mining operations are increasingly demanding involvement in decision making for projects, especially in terms of issues relating to sustainability. They also demand a greater share of the economic benefits of mining activities in their areas (Prno, 2013).

However, compliance to regulatory instruments is no longer sufficient to satisfy this demand by communities (Prno, 2013). Sustainable development should not only be

implemented only for compliance but also to drive the transformation agenda as promoted by the Mining Charter (Ololade & Annegarn, 2013), i.e. the BBBEE codes of good practice in the mining sector in South Africa which were revised and published in 2014. An additional 'social licence to operate' is increasingly being required for mining operations to avoid risk and conflict (Prno, 2013).

Kemp & Owen (2013) posit that companies are increasingly exposing themselves to external scrutiny in terms of sustainability through these various disclosures. This means that stakeholders have access to corporate sustainable strategies insights. According to De Villiers, Low, & Samkin (2014) reporting and disclosures are at the core of many mining companies' sustainability agendas. They provide stakeholders' insights and form a basis for effective stakeholder engagement. Although there are different motivations for organisations to report on sustainability – which may include the corporate's social, economic and environmental impacts – organisational leadership is also one of the internal drivers (Domingues, Lozano, Ceulemans, & Ramos, 2017). Kang & Chiu (2016) argue that taken as a corporate social responsibility mechanism, ESD can build competitive advantage for a mining company, if it is applied as more than just a compliance issue.

While this reporting can be influenced by regulatory issues, societal norms and knowledge (Kang & Chiu, 2016), Ololade & Annegarn (2013) argue that there exists a mismatch between the data contained in the transformation and sustainability reports with the impact that is envisaged on the ground. The cost of mining to sustainability and the environment – with South Africa having the largest greenhouse emissions in Africa (Baker, Newell, & Phillips, 2014) – is still high. The economic benefits and outcomes to the communities are lower than claimed in the reports (Ololade & Annegarn, 2013). Many South Africans are yet to benefit from the natural resource wealth. The country has some of the world's inequality, joblessness and poverty rates. These sought after mineral resources have failed to alleviate poverty and improve livelihoods of most citizens. This signals that the country is confronted with issues similar to other resource cursed states in the sub-Saharan Africa region (Elbra, 2013). Therefore, an alignment between what is reported for compliance in order to continue operating and the social and economic

impact of the efforts must be maintained (Ololade & Annegarn, 2013). This alignment between these stakeholders and the industry is a key enabler for compliance as well as for achievement of the desired social and economic impact on the community by the mining companies (Ferraz, 2016). In essence, the data reported should reflect the performance of mining organisations in terms of the ESD activities and how do these contribute to sustainability in monetary and non-monetary terms.

Creation and development of enterprises that operate in secondary industry to mining will give the impetus to the idea of sustainability of host communities' life beyond mining (Ololade & Annegarn, 2013). Development of local enterprises for exploitation of mining waste will create secondary industries while dealing with the environmental impact of mining (Ololade & Annegarn, 2013). Beneficiation of mining waste can act as a valuable resource that can be used as an intervention promote sustainability of these communities after mine closure (Ferraz, 2016). In addition to compliance, job creation and creating legitimacy in the eyes of stakeholders, the mining operation will also benefit from reduction of the post-mine closure risks that it may be liable for. For the government, the benefit will be achievement of sustainability and transformation objectives together with the reduction of the environmental impact (Ferraz, 2016). Beneficiating mining waste also has the potential to unlock the intrinsic value of South Africa's minerals, while driving downstream, upstream and side-stream beneficiation across mining value chain. It will also work for enhancement of skills and technology transfer for the benefit of local enterprises (Moagi, 2015). As a result, as part of their work around sustainability, mining companies need to forge alliances with other local players to promote enterprise development and job creation in communities. However, continued misalignment between the industry's view of sustainability versus what the stakeholders actually witness on the ground has potential to create mistrust between these stakeholders (Ololade & Annegarn, 2013). Stakeholder groupings from social, labour and political sector in emerging economies like South Africa are wary of multinational corporations entering their markets with issues of mistrust emanating from past practices (Bonakele, Beaty, Rasool, & Kriek, 2014). These include exploitation of natural resources and raw materials without providing

beneficiation opportunities for the host communities and these multinationals not utilising local suppliers and therefore not contributing to local economies and jobs. Mining waste can also assist in transitioning local economies from sectors such as mining and agriculture to manufacturing and high value add industries such as engineering and design. This is key to changing the economic structure of South Africa (Bell, Goga, Mondliwa, & Roberts, 2018). Mining waste can be exploited to create sustainable enterprises that are able to sustain employment opportunities and improve livelihoods in host communities.

In order for collaboration to be sustained, there has to be a common understanding on what constitutes sustainability and how this concept is defined among stakeholders (Ferraz, 2016). According to Ferraz (2016), finding and maintaining this common understanding will also enable economic and social partnerships to emerge between the government, mining industry and community-based enterprises. A structured relationship building with sustainable development in mind is demonstrated through a moral commitment to sustainability and community stakeholder engagement. An example of this commitment is through the establishment of Collaborative Regional Development (CRD) functions within the mining companies' corporate structure. This function acts as an interface between the company and the communities (Kemp & Owen, 2013). The CRD function has emerged in these corporate structures to provide means and mechanism through which companies can engage with key stakeholder groups, especially the host communities on which they have operations. This enables establishment of a common mechanism on which benefits can be shared and operational risks mitigated (Kemp & Owen, 2013). Trust is therefore cultivated, resulting in a reduction of operational risks as community stability will be enhanced and maintained (Ferraz, 2016). The ultimate result is that economic activity will be enhanced through income generation and employment will be created, generating the desired social impact on host communities.

Relationships with stakeholders have a direct impact on financial performance of an organisation (Berman, Wicks, Kotha, & Jones, 1999). Positive relationship with stakeholders can improve an organisation's financial performance and vice versa.

The strengths of these relationships can be affected by resources allocated to nurture these relationships. Support to mining operations can be brought about by addressing sustainability considerations with involvement of local communities in planning. The social licence to operate can be enhanced by making five considerations in its application: context, relationships, sustainability, public participation and adaptability (Prno, 2013). When taken together these considerations would make a meaningful contribution towards community development, in terms of size and impact (Moagi, 2015).

Companies need to incorporate the CRD function as part of the core business and therefore corporate social responsibility as their competence if the idea of sustainable development is to be a feature of the mining industry going forward. This will enhance their response to societal pressure on environmental, economic, political and development challenges that are now widespread due to collective activism by communities (Kemp & Owen, 2013).

DATA COLLECTION AND ANALYSIS

Introduction

Data collected for this research include secondary information sourced from industry and organisational reports including sustainability, transformation and annual reports of mining companies. This data was used to determine the nature, intent and purpose of sustainability efforts by these companies.

For primary data, entrepreneurs and owners of host community SMMEs were interviewed. Answers to these interview questions were analysed and interpreted against the industry reports and the information they contained to conclude on whether the sentiments in communities corroborates or contradicts these reports.

Research design

There are three elements to research methods – data collection, analysis and interpretation – that guide the design, which can be referred to as a plan to guide the research process (Abutabenjeh & Jaradat, 2018). The research question in this study is aimed at accessing thoughts, feelings and opinions of research participants (Sutton & Austin, 2015) to determine whether ESD activities have the desired social impact on sustainability of communities. Qualitative research was therefore employed, and it helped enable development of the meaning that participants ascribe to their experiences (Sutton & Austin, 2015). This therefore provides a basis for a quantitative study should that need arise or help guide the future design of stakeholder engagements and ultimately an organisation's ESD activities.

Research instruments

In line with Abutabenjeh & Jaradat (2018)'s position towards usage of quantitative methods like close-ended questions or numeric data in data collection, the study utilised semi-structured interview questions as an instrument for primary data collection. This enabled the study to:

a) gain an understanding of what the participants feel ESD initiatives add to sustainability of their communities,
b) assess if they feel that they are able to participate as stakeholders in guiding the design and implementation of ESD, and
c) if they are able to integrate their own entrepreneurial operations with other sustainability issues, including waste management.

The questions were sent to each interviewee in an email as a meeting request. Upon accepting the meeting, the research questions were then posed to the interviewee and where appropriate, follow-up questions were asked. The industry and organisational reports would also be used as a basis for secondary data such as company activities with respect to implementation of sustainability programmes, the enterprises being reached and how communities benefit from ESD initiatives, especially in terms of employment and income generation.

This research compares the ESD functions of various mining companies, with information sourced from their environment, social and governance reports as well as their sustainability reports. It draws conclusions and thematic outcomes from these reports and compares these with the responses from interviews held with the beneficiaries of ESD programmes in mining communities.

Research participants

In terms of using document study method of collection, participants in the study included mining companies listed in the Johannesburg Stock Exchange (JSE) and operating in the major mining areas in South Africa in Mpumalanga, Northern Cape, North West and Limpopo provinces. The mining operations hosted in these provinces belong to the corporates that have been sampled for this study. According to Statistics SA, mining is the largest industry in these four provinces (Statistics SA, 2021). With these companies listed, data relating to their operations and their ESD activities in particular, is publicly available and published on an annual basis. Qualitative research samples can be small in order to support the depth of case-oriented analysis that is fundamental to this mode of inquiry (Vasileiou, Barnett, Thorpe, & Terry, 2018). Therefore at least 10 of these companies' annual,

sustainability and transformation reports were studied to understand the purpose, targets and numerical data relating to their ESD initiatives. This qualitative data sample was purposive in method, i.e. selected because the data collected can provide richly-textured and relevant information. It was therefore sufficient to provide information relevant to ESD activities of the mining companies that can be generalised. According to (Busetto, Wick, & Gumbinger, 2020) this method of data collection is one of the common methods used in qualitative research. Also, from these documents there are examples of enterprises that have achieved companies' ESD goals and these documents were also used as leads in sampling the participants targeted for interviews.

For the primary data, a sample of 12 participants were targeted. This sample comprised owners of SMMEs that participated in any company's ESD initiatives or programmes. The technique used was convenience sampling as participants were targeted based on their availability and willingness to be interviewed. The sample allowed the study to generate various perspectives and experiences. This sample was large enough to reach data saturation, i.e. themes had started emerging and the data that was expressed in previous interviews was being repeated (Saunders, et al., 2018). Hennink & Kaiser (2022) have demonstrated that saturation can be reached in a narrow range of interviews of between 9 and 17. As indicated in the delimitations section above, SMMEs used in the study are at the lower level of their growth stage as shown Figure 1. This makes the sample to be representative of a relatively homogenous population with narrowly defined objectives (Hennink & Kaiser, 2022). Businesses in this growth stage focus on scaling the business, increasing revenue, and improving profitability (The Hartford, 2023). These are viable businesses that are already suppliers in the mining operations. They have had a contract or purchase order with a mining operation and/or have been funded through the existing contract funding programmes of the operations. They are however depended on these opportunities are therefore not at the maturity phase in terms of having not achieved stability, market share and profitability (The Hartford, 2023). A variation of the business growth model shows that these are businesses that are in 'early' stage of development (Figure 2). This takes into account their source of development as being the 'corporate' and their financing

requirement and mechanism being ‘specialised finance’, in this instance, contract financing (Aspen Network of Development Entrepreneurs, 2015).

Figure 1: The four stages of business growth (The Hartford, 2023)

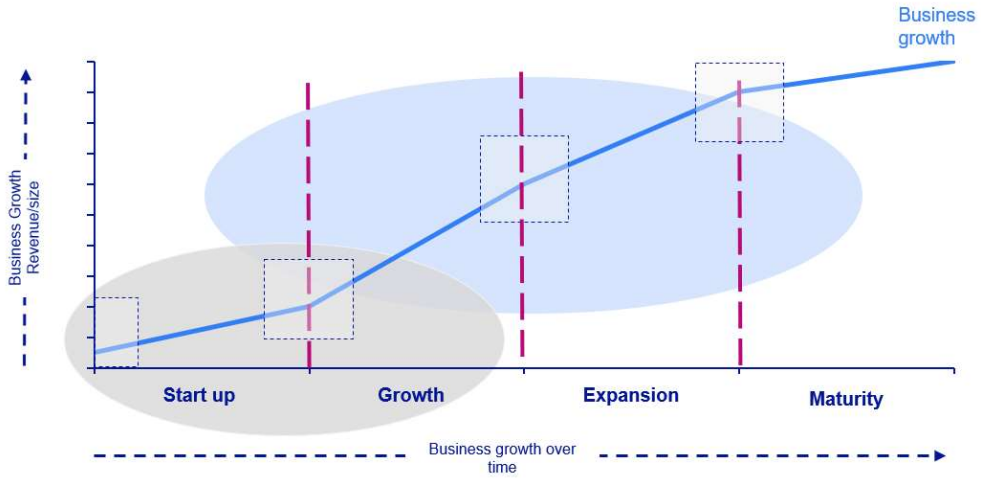
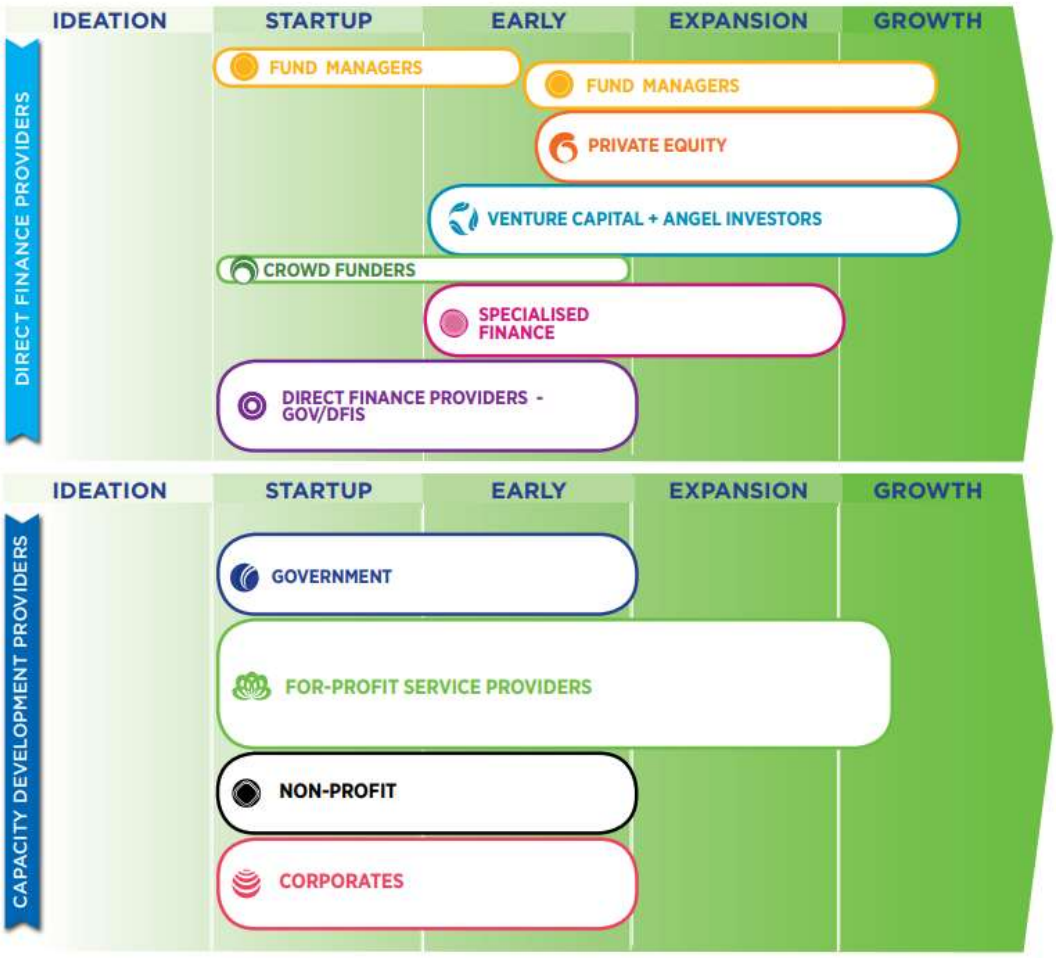


Figure 2: This shows enterprises targeted by corporates for development are in the 'early' stage of business growth stage (Aspen Network of Development Entrepreneurs, 2015).



Research reliability and validity

Validity ensures that correct procedures have been applied to find answers to the question (Kumar, 2019), and relates to appropriateness of the research tools, processes, and data collected (Leung, 2015). Reliability refers to exact replicability of the processes and the results (Leung, 2015). For this research to be reliable most of the interview questions, i.e., the follow up questions, were probing for answers relating to Question 5 and 6 on the list in the appendix. The method and procedure of collecting the data assisted in terms of appropriately answering questions on why

particular sentiments to ESD activities are observed or not in the communities (Busetto, Wick, & Gumbinger, 2020). How well the results can be generalised (external validity), in the host community depended on the sampling of these enterprises participating in the programmes. The sample was representative of participants from multiple ESD programmes and geographic locations and representative of different commodities being mined.

Data analysis and interpretation

For both the primary and secondary data, thematic analysis was employed as a technique. This involved reading through the organisational reports to derive thematic areas through which they implement their ESD programmes. Thematic analysis has no unique guidance in terms of the sample size required, and sampling is done until data saturation is reached (Javadi & Zarea, 2016). The process of analysis followed the phase approach determined by Braun & Clarke (2006):

a. Familiarising oneself with your data:

For the secondary data, this was achieved by reading through at the most recent organisational reports of mining companies.

b. Generating initial code

The secondary data was then used to generate initial codes systematically. The data was then analysed and codes related to funding, training, mentoring, technology, market access with respect to ESD programmes were established.

c) Searching for themes

The interviewing process to collect primary data meant that the questions asked related to the codes that were generated. Interviews with entrepreneurs that participated in ESD were used to gather data about their experiences while participating in these programmes. Common themes were then established from the interview answers.

d) Reviewing themes

The next step was to check if these themes can be merged with these initial codes in order to generate a thematic map of the analysis.

e) Defining and naming themes:

The analysis went further to create a thematic matrix that clustered and named the themes into the following headings:

i. open engagement and value co-creation
ii. supply chain opportunities
iii. training and mentorship
iv. financing
v. overall impact

f) Producing the report:

The final report was written to include compelling extracts from the interview as examples, relating back to the analysis of the research question and literature (Braun & Clarke, 2006).

Ethical Considerations

Informed consent is a fundamental component of conducting ethical research. It can be given verbally or through a participant in the research signing a consent form (Vicars, Steinberg, McKenna, & Cacciattolo, 2015).

The email that was sent to the participants informed them that their participation is voluntary and there will be no consequences for accepting or declining to participate. They were informed that if they chose to participate, all the information that will be used only for this study and kept confidential. Since the email was sent as a Teams meeting request, those that consented to participation were requested to ‘accept’ the request. The meeting itself was recorded and consent was solicited again for the recording to be made prior to the interview.

The data, field notes, audio recordings and transcripts of the interviews have been made, and this data is stored securely.

Questions about the number and size of the contracts and purchase orders they have with particular operations were not entertained, even though some of the participants disclosed this data. This was not used in the final analysis and report as this is a quantitative data that is not relevant to the research but helps test the correctness of the sample.

A consideration around the use of English language was also made and further explanations were made where there would be a misunderstanding around the aim of the research and why certain participants were selected for the sample. This was taking into account the assertion by Vicars, Steinberg, McKenna, & Cacciattolo's (2015) that research conducted in settings where participants are non-native speakers of English should involve additional ethical reflections for researchers.

For the secondary data the corporates whose reports were researched were identified in the findings. These documents were sourced from their public records, some of which were available on their websites.

Limitations

The notion that interviews are used to gain insights into a person's subjective experiences, opinions and motivations – as opposed to facts or behaviours (Busetto, Wick, & Gumbinger, 2020) is a limitation in the research in itself. The opinions, experiences and motivations are likely to mirror their level of achievement in the programmes, i.e., if they have been successful, they might affirm that the ESD programmes are valuable when in fact the objective truth may be that they are not effective, and vice versa. Participants in the survey may also not be truthful in their response for fear of biting the hands that feed them or that may feed them in the future. Communities are also a politically contested terrain and therefore truth may be structured from a political viewpoint. As a mitigating factor, the open-ended nature of the question enabled the interviewer to probe a bit further and navigate around biases during the interview stage as they were flexible, open and took responsivity to (Busetto, Wick, & Gumbinger, 2020). In conducting these interviews, the interviewer was constantly on the look-out for existence of the hidden truth (Patel & & Patel, 2019).

According to a Small Business Institute study , South Africa does not have a regular census or a periodic survey that tracks the performance of micro, small and medium enterprises (SMEs). This poses a challenge for “reliable, comprehensive and consistent data” in terms of the number of SMMEs that exist in South Africa (Small Business Institute, 2018).

This means that the data on the number of jobs and GDP contributions may not be accurate. For the purpose of this study, an SMME will be a company that has participated in the ESD programmes. This means that the research took the definition of the ESD programme’s definition of what constitutes an SMME. While this may pose a discrepancy in the results, this will be offset by the fact that the research will be particularly focusing on enterprises operating from mining community areas and therefore the interviewed SMME or entrepreneur would be a relevant stakeholder. ESD programmes are not reported separately from the overall sustainability programmes of mining corporates. Therefore, quantifying the contribution of a mining company at a corporate level and operations level proved to be a limitation.

FINDINGS AND DISCUSSION

Introduction

ESD in the mining sector enables mining companies to grow small businesses and contribute towards employment as South Africa is facing a crisis of a stagnant economy, declining economic outcomes, unemployment and poverty (Muir, 2020). Small businesses contribute to the economy as the single-largest employer (Muir, 2020), with about 68% of all jobs in South Africa being sustained by the SMMEs (SEDA, 2023).

Sustainability in this instance means that these beneficiaries have enough capacity, capability, and resources to be viable and continue to grow beyond the mining operations in terms of revenue and size (Figure 1). Essentially sustainability means ensuring that the benefits are long term rather than once-off for local enterprises. Sustainability may not be tangible in value, but it means that the enterprises must be able to sustain themselves, enabling the mining operations to leave behind a vibrant economy when the mine no longer exists in the community (Exxaro Resources Limited, 2022)

Mining companies are increasingly spending more on inclusive procurement, which is effectively preferential procurement spend geared towards sustainable livelihoods in mining host communities (Geipel, 2017). They are integrating these spend with their ESD efforts to ultimately utilise this spend for host community beneficiaries of their ESD programmes (Anglo American South Africa Limited, 2020). ESD is not only geared to enable economic growth for enterprises from their respective host communities, but it is also aimed at creating a pipeline of supply chain opportunities that these SMMEs can exploit. This creates market linkages for the SMMEs through utilisation of the mining operations as a market for these SMMEs' services and suppliers.

Just as mining companies use CRD functions to sustain their licence to operate as well as to acquire local resources necessary for operations such as land, they also use ESD programmes to drive their sustainability agenda. They do this through

increased inclusive or preferential procurement that benefit local enterprises and drive local economic development in communities. This is because ESD programmes are used by these companies to manage host community expectations for development. In addition, these programmes are used as mechanisms to build trust, reciprocity, co-existence and sustainable outcomes.

Training, mentoring and coaching are at the core of most ESD programmes. However, these need to be aligned to procurement opportunities that are available at the operations as well as related funding that will enable the suppliers to deliver on their contracts.

According to Prno (2013), building relationships with communities need to be consistent internally. A lack of this consistency has the potential to create tensions as well as conflicts between the company and the communities. This means that internal alignment needs to be created between ESD programmes and functions such as supply chain and CRD to enable SMMEs access to opportunities available at the mining operations.

This section presents and discusses themes emerging from the reported sustainability results of major mining corporations in South Africa, together with sentiments from interviews held with beneficiaries of their ESD programmes.

For every thematic area, the structure of the discussion will be firstly to contextualise the theme as deduced by the researcher. Then an analysis and interpretation of what the mining companies have reported as their contribution or activity relating to ESD will follow. The next step will be to determine what the sentiments of the entrepreneurs who participated in the programmes are in relation to the report with direct quotes from the interviews.

Thematic areas

Open engagement and value co-creation

Context

Communities in South Africa are disproportionately reliant on mining operations for employment, procurement and social investment, the lack of which creates tension and spontaneous protests. Mining companies have the spending power to create sustainable social impact in local economies, enabling development, employment and poverty reduction in these communities. Strategies, policies and procedures are crafted and implemented for inclusive procurement to be effective for the benefit of host community SMMEs. This takes into account the economic contexts, societal expectations and specific community issues. Engagement with these SMMEs is important to create trust between them and the mining operations. It also works to co-create business models, design appropriate programmes for the communities. It therefore provides an enabling environment for collaboration and inclusive procurement. It can also be used to create awareness of opportunities that are available in these operations for local SMMEs.

Industry's perspective

Anglo American (2020) reveals that involving business groupings from host communities in decisions on local procurement contributes to creating sustainable and stable operations. This demonstrates verifiable and measurable benefits to these SMMEs. Harmony developed a preferential procurement strategy that would enable the company to allocate a large percentage of its procurement spend to SMMEs (Muir, 2020). The company therefore designed its ESD programme to enable it to promote its sustainability efforts in its operations, which include local economic development and employment in its host communities. With these SMMEs as suppliers in the company’s operations, the social impact of the operations to host community SMMEs can be tangible and measured in monetary and non-monetary terms. Networking opportunities that are created between large suppliers and SMMEs can also be utilised as engagement and information sharing sessions with community-based enterprises.

Impala Platinum Holdings Limited (2022) has increased its local procurement with a purpose to create stability for the operations and co-existence between the operations and the host communities. This is in mitigation of the social disruptions that may appear as a result of trust deficit between the mining operations and the

communities and also intra-community disputes between various community role players. According to Impala Platinum Holdings Limited (2022), engagement with local SMMEs is enabled through business forums. It allows for improvement in delivering inclusive procurement outcomes by enabling access to opportunities within mining operations. This is in addition to utilising an enterprise development infrastructure, including internet connectivity, to support access to available opportunities, as well as to offer training, mentorship and technical support to local enterprises.

At Anglogold Ashanti, engagement with host community suppliers, operational systems and processes – including incident and grievance management systems – are utilised to manage the company's sustainability efforts (Anglogold Ashanti Limited, 2022). Engagement efforts include briefing sessions aimed at increasing local procurement that guide local SMMEs on how to take advantage of the available opportunities as well as to report to stakeholders on ongoing ESD programmes, funding and market access activities. Measurable targets as well as open and transparent engagement on these targets as part of the localisation strategy also ensures that tangible and quantifiable value is realised and communicated to stakeholders, especially these host community suppliers.

Transparent and inclusive engagement enables mining companies to deliver on sustainable, scalable and impactful local economic development through ESD (Exxaro Resources Limited, 2022).

Participants' perspectives

Enterprises interviewed indicated that they find value in the ESD programmes not only because these efforts are "aimed at empowering the vulnerable aspirant entrepreneurs that come from disadvantaged backgrounds but also because they give the necessary support that will enable them to run sustainable enterprises that create employment opportunities in local communities".

"Many enterprises that are otherwise unable to compete against big enterprises are now able to get opportunities through the contribution of ESD."

These enterprises are testament to the positive role played by the ESD programmes in the host communities. The engagement efforts between the mining companies and local communities helps to “ensure that the programmes’ intentions are clear and therefore give entrepreneurs confidence to participate with a hope for positive outcomes”. Through engagement efforts the ESD programmes can transparently refer and recommend beneficiaries to available opportunities. Additionally, before these recommendations can be made the programmes get to know the beneficiary companies, entrepreneurs running them, their capabilities, and resources as well as the products and services that they offer. This happens mainly at the operations site level.

Intensive engagement of the communities and community-based entrepreneurs ensures that the sustainability value of the programme is realised in that this effectively ensures that appropriate community enterprises are the main beneficiaries of the ESD programmes for the mining operations. This is with an intention to empower these enterprises in a manner that they can continue to thrive long before the mining operations have ceased in their areas.

Engagement also nurtures networks that beneficiaries have with one another, creating a value in that this stimulates the entrepreneurs’ interest in each other’s works, capabilities and resources. As such the entrepreneurs participating in these programmes can leverage on each other’s strengths and skills in developing their enterprises. The environment that is created enables them to share information and available opportunities that are best suited to any of them.

In addition to direct engagement with host community SMMEs, digital procurement platforms can be utilised to increase visibility and transparency of opportunities available in the mining supply chains for host community suppliers.

Continuous engagement, listening to host community suppliers and involving them in co-creation activities is helpful in that it assists in the agreement between the mining operations and host communities. This is important in terms of how value or social return on investment gets measured in a way that is relevant to the host community enterprises. ESD can also enhance cooperation among host community

suppliers and create a collaborative approach where these enterprises can dismantle the barriers of entry.

“I’ve found value in being able to collaborate with other business people who are interested in what I'm doing, and I'm interested in what they're doing and we leverage off of each other’s skills.”

In addition, ESD programmes helps to strengthen relationships with community stakeholders, who remain concerned that opportunities remain limited for host community suppliers in various sectors.

Supply chain opportunities

Context

A strong emphasis to procure from mine communities ultimately helps these enterprises to transition from being reliant on supplying products and services to one mining operation to supplying to other mining and non-mining operations countrywide, and therefore ensuring sustainability. Procurement procedures and policies as well as related activities and targets are aligned with the ESD objectives to enable inclusive procurement and increased preferential procurement to benefit local communities.

Generally, supply chain, localisation and inclusive procurement policies of mining companies are aimed at reinforcing the development of their host communities as well as to enhance transparency, fairness and inclusivity in terms of inclusive and local procurement practices. This includes demonstrating the achievements of the targets that have been set for this purpose.

Industry’s perspective

Because of its measurability, local procurement expenditure can be a preferred measure of social impact for a mining company and can be a strategic outcome of the localised procurement strategy (Kumba Iron Ore Limited, 2022). Through their business development centres and hubs, mining companies can share business

opportunities with host community suppliers in addition to provision of training, mentoring, coaching and business support. Support for these local suppliers include negotiating with equipment suppliers to enable contractors to acquire machinery at competitive rates. It can also enable the local suppliers to deliver on the contracts they have been offered as part of the local procurement spend. This support enables host community SMMEs to take advantage of the mining companies' own supply chain opportunities with the ESD function integrated through a structured approach with the procurement functions. This therefore links local enterprises with the mining operations' supply chain (Petra Diamonds Limited, 2023).

AngloGold Ashanti's localisation strategy and local procurement policies seek not only to comply with local content laws but are also aimed at partners and local joint ventures. This enhances transfer of skills and capacity building of local enterprises for long term sustainability (Anglogold Ashanti Limited, 2022).

Ringfencing of opportunities for local SMMEs participating in a particular company's incubation and ESD programmes enhances participation of local enterprises in the programmes. It also improves on sustainability efforts and local procurement outcomes (African Rainbow Minerals Limited, 2021). This was particularly important in procurement of goods utilised for Covid-19 prevention and relief as this were often sourced from local enterprises in a manner that such projects were ringfenced for local community suppliers (Impala Platinum Holdings Limited, 2022). Access to equipment and financial support are key to implementing successful ESD programmes with an aim to graduate the enterprises into the mining supply chain for sustainability.

Digital platforms enable the entrepreneurs to look for and participate in procurement opportunities and as part of the ESD activities as it allows them to register and enhances their participation towards exploitation of these opportunities (Petra Diamonds Limited, 2023). These platforms are also useful in the implementation of the training and mentoring aspects of the programmes. Training also includes a cybercrime awareness aspect to avoid these enterprises being targeted by scammers.

Participants' perspectives

Participants of the programmes interviewed in this study however express sentiments that the ESD programmes are "dismally" failing to help them secure, introduce or afford them exposure them and the enterprises that they run to business opportunities. They express a sentiment that there is no measurable difference between participants and non-participants of the programmes in terms of acquisition of work from the operations. "There is supposed to be a difference between beneficiaries of ESD programmes and people who are not beneficiaries. At this particular moment non-beneficiaries are excelling in getting business opportunities while the beneficiaries are struggling to even get a chance to present information on a project they applied for."

The participants indicate that while the ESD programmes are aligned with local and inclusive procurement policies of these mining operations, they are weakened by lack of tangible operational plans to assist the beneficiaries to take advantage of the opportunities that are available. Some of the participants interviewed are entrepreneurs who already had contracts by the time they participated in the programmes. They are therefore of the view that they were only onboarded to increase the numbers to align with the localisation and inclusive procurement targets of the programmes. This creates a perception that these programmes are there for the mining companies to tick the boxes and increase their number of participants.

Practically, the interviewees suggest that the focus of ESD should be firstly on assisting beneficiaries secure opportunities and then train and mentor them on how to manage those contracts. When enterprises are looking for business opportunities, they should be able to obtain advice on how to tender and secure those opportunities. They should also be advised on partnering or collaborating with other enterprises, sub-contracting and establishing joint-ventures with other enterprises that are experienced in the services and products that have been tendered for. The main reason for these entrepreneurs to join the programme is for their enterprises to obtain work opportunities in the mining operations in order to grow and employ more people. By exposing them to supply chain opportunities,

they will be afforded an opportunity to showcase their professionalism in delivering their good and services. At basic, the programmes must assist with adding these SMMEs into the mine supply chain database and afford them an exposure to Requests for X's (RFXs). This creates an opportunity for enterprises that "graduated" from these programmes, with the acquired knowledge and skills, to be automatically acknowledged and for those skills to be demonstrated.

The networking effect of these programmes is also crucial with regards to creating markets for the participants of these programmes as it affords them an opportunity to engage with supply chain practitioners at various mining operations and to be able to secure invitation to available RFXs. For sustainability to be realised in terms of ESD, at a minimum beneficiaries ought to be afforded an opportunity to practically demonstrate the skills they have acquired through participation in the programmes.

Training and mentoring

Context

Skills development and transfer are key deliverables of the ESD programmes as they help host community suppliers to improve their business acumen, financial management and skills. The mentorship aspect of the programmes creates an environment that offers support and networking opportunities in real business contexts. This includes advice for beneficiary enterprises to partner with an established company in order to gain experience until the entrepreneurs are able to venture out on their own. The programmes are valuable in terms of creating an environment where entrepreneurs can learn certain aspects of the business without having to expend financial resources.

Industry's perspective

These SMMEs are then able to budget, cost correctly, acquire and deliver on the contracts that the mining company would have made available as part of its local procurement efforts (Sibanye Stillwater Limited, 2022). Technical training offered as part of the ESD programmes adds value to host community suppliers by enabling

them to deliver on complex technical programmes, including manufacturing and beneficiation (Anglo American South Africa Limited, 2020). In this instance, suppliers facing technical and safety skills challenges can be identified and trained, mentored, and coached to improve their capacity on those aspects.

Participants' perspectives

Not all entrepreneurs are financially savvy and astute and therefore having ESD training that is dedicated to financial management creates an enabling environment for successful entrepreneurship. This also the case with legal and tax compliance as enlisting accountancy services can be expensive and prohibitive to entrepreneurship. Specific training includes programmes that are aimed at financial management aspects of SMME such as bookkeeping, record keeping, cash flow statements, income statements, balance-sheets, financials and tax compliance. For the interviewees, these are quite important for entrepreneurship to be successful. Training on bidding and tendering helps entrepreneur understand the bidding process, requirements, pricing, adjudication, etc. in order to successfully bid for available opportunities. Business models that include the application of Business CANVAS are particularly helpful in that the SMMEs are enabled to visually present their business profiles showcasing strategic factors, such as its customer base, employees, projects and finances to be able to determine the prospects of growth of the business. This leads to SMMEs' ability to improve their strategies and realign the resources required towards attaining the required growth as the objective of the business, taking into account the context in which it operates. The entrepreneurs participating in the programme get to understand how a business is supposed to operate, enabling them to create an efficient operating structure for the business.

Participation in the programmes can be time-consuming, especially if the training and mentorship session must be conducted physically in person. The extra benefit of aspects of the programmes that are offered virtually is that they are cost effective and efficient for the entrepreneurs in that they free the time for them to focus on building their businesses. The training and mentorship programmes are also

valuable in that they help entrepreneurs to “think out-of-the-box” in finding solutions to their business problems or challenges.

For those that already had contracts, the sheer size of the contract can be intimidating. Therefore, access to a mentor and a dedicated business advisor is a valuable benefit for the entrepreneurs participating in the ESD programmes. Depending on how the advisor assesses the enterprise, an appropriate training, and the frequency with which it is to be conducted can be determined and implemented. The business advisor would assist in terms of assessing, testing, and gauging the level of expertise of the entrepreneurs and therefore offer them particular assistance that is tailormade to their entrepreneurial needs. With that done, the business advisor would get to understand what the requirement of that entrepreneur is on a monthly basis, whether financial accounting, payroll, human resourcing, compliance issues, etc.

Financing

Context

Contract funding is an enabling factor because it affords the entrepreneur access to capital and resources to be able to execute the project successfully. However, contract funding is generally not free as it is not a grant. While useful in many aspects, it does keep the entrepreneur indebted to the programme, which can be a drawback in case the entrepreneur is not financially savvy.

Industry’s perspective

Contract financing is crucial to enable SMMEs to deliver on these contracts and thus contributing to sustainability of communities through local economic development (Sibanye Stillwater Limited, 2022). Funding programmes enable preferential early payment terms to enable these enterprises to manage their cash flows (Impala Platinum Holdings Limited, 2022). This intervention was also especially important to alleviate the adverse effect of the Covid-19 to community-based enterprises.

Participants' perspectives

"The only aspect we found to be useful was the loan facility we got in 2015 which assisted us to purchase a 22-seater bus for our company, however we remained indebted to the programme for a long time." Contract funding can also be limiting in terms of growth of an enterprise in that it cannot be extended to cater for other business needs beyond the particular contract or purchase order that it was secured for. For example, an enterprise that has a fixed-term contract would spend a sizeable amount of money on hiring equipment and machinery for that project instead of purchasing that equipment. When the contract is completed, the enterprise would not have acquired these working assets to enable it to grow the business and create jobs. It will therefore remain stagnant on its growth path. However, having such assets would enable the enterprise to access more funding as its balance sheet will be improved.

Having the contract funding structured in a manner that ties it to the contract also means that the funds will only be paid gradually to the contractor until the project is completed. The enterprise is therefore unable to utilise the funds for any other business growth ventures – or even for other projects that it may have acquired during its implementation of the project that has been funded. This means that the enterprise may no longer be viable once the project has stopped.

Impactful outcomes

Context

SMMEs need to meet requirements for health and safety, environmental protection and respecting human rights in the delivery of their contractual obligations with mining companies, and therefore ESD programmes are designed for sustainability in that manner.

Long term job opportunities that are independent of the mining operations can be regarded as a direct benefit and measure of a successful implementation of an ESD programme.

Industry's perspective

ESD is part of community development activities that works to resolve issues that affect mine operation and production, sustainability and social upliftment through the programmes creating a platform for job creation, skills transfer and continuous engagement. Meaningful relationship based on trust, transparency, open engagement, and communication creates a sense of shared value and mitigates risks financial, social and operational risk to the mining operations (Petra Diamonds Limited, 2023). Through this, diverse new businesses and new opportunities for sustainability are created to enable these enterprises to continue to operate after the mining operations have ceased. This also helps to create a nurturing environment for goodwill around mining operations.

Participants' perspectives

ESD programmes have an impact on entrepreneurs' personal development in terms of business acumen, especially for women entrepreneurs in the mining sector, which is a male dominated industry. "I don't believe I would have had the slightest opportunity of succeeding and making it in business without such important programmes like ESD". Training offered in the ESD work to create and manage change in terms of personal development – imparting knowledge, sharing information and enhancing skills – with the value being in enabling the entrepreneur to find and seize opportunities as and when they become available.

After the intervention of the ESD programmes, SMMEs can strategically plan for short- and long-term objectives and be mindful of their operating context, threats and opportunities. They can put strategies in place to mitigate risk while managing their strengths and weaknesses to grow their businesses. They can plan strategically and structure their business plans effectively.

The established business hubs work as physical platforms to support local sustainable growth by providing information for local community members, supporting established businesses, sourcing funding and preparing applications for finance, business skills training, business development mentoring, and equipping

participating SMMEs with managerial, financial and technical skills (Glencore Plc, 2022).

Table: A suite of services generally offered at the mining operations business centres in host communities (Petra Diamonds Limited, 2023)

Service Offered	Description
Training and Mentoring Services	Providing training and mentoring services to employees, contractors, and the local community in various mining-related skills.
SMME Business Advisory Services	Offering advisory services to Small, Medium and Micro-sized Enterprises (SMMEs) to help them develop and grow their businesses.
Technical and Safety Related Training	Conducting technical and safety-related training programs to ensure compliance with industry standards and regulations.
Market Access Information	Providing information on market access opportunities for SMMEs to enable them to exploit business opportunities.
Funding for Qualifying SMMEs	Providing funding or contract funding for qualifying SMMEs to enable them to deliver on their contractual obligations with the mine.
Access to Business Infrastructure	Providing access to business infrastructure such as internet connectivity, printers, meeting rooms, boardrooms, etc.

CONCLUSION

ESD programmes allow the entrepreneurs to engage with other entrepreneurs and therefore create a network of entrepreneurs that are able to share information, collaborate on opportunities, leverage on each other strengths and pursue new avenues for growth. ESD interventions also work to help host community suppliers to enter the digital economy and therefore enhancing economic development through digital avenues.

Entrepreneurs, however, should be able to get to a point where after they have been trained, they can move to the next level and be able to apply the learnings from the training programme. This means being afforded the supply chain opportunities.

Inclusive procurement and supply chain development integrated with ESD programmes works to create shared value for local communities by supporting and enabling beneficiaries of the ESD programmes to participate in the company's supply chains. This in turn stimulates job creation, economic development and growth for host communities, in particular women and youth owned enterprises.

The expectation to be able to run the business, grow the business and get support remains unfulfilled for most SMMEs, limited by the programmes not being able to offer opportunities post the training. Engagement and co-creation efforts create expectations of long-term partnerships for growth between ESD participants, as a subset of community stakeholders, with the mining operations. This however does not materialise in terms of supply chain opportunities and contract funding, participating in the programmes offer no added advantage.

Ultimately, the sentiments are that the programmes are valuable mostly for personal development rather than actually developing the business because after the programme is completed, entrepreneurs expect to be exposed to better opportunities based on the training, but this is not the case.

Recommendations and implications for future research

If the idea is to leave the communities where mining operates to be left better off after the mining has ceased, then a more tangible value than dispensing contract funding needs to be added.

The exists a gap in the data to quantify the contribution of the mining industry to enterprise and supplier development, and therefore the monetary contribution of this sector to sustainability outcomes of mining companies and operations. This is while it is evident that companies in South Africa are contributing immensely to this development in terms of mentoring, training, funding and exposure to supply chain opportunities. A quantitative analysis can therefore be an area of research to determine if the ESD programmes are contributing to sustainable development of host communities.

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ANNEXURES

Table 1: Consistency matrix

Problem or scope of project stated here					
Sub-problem	**Literature Review**	**Hypotheses or propositions or questions**	**Source of data**	**Type of data**	**Analysis**
The extent to which the data available reflect the performance of mining organisations	An assertion that reporting can be influenced by regulatory issues, societal norms and knowledge (Kang & Chiu, 2016), that it does not show accurately what is happening in the communities (Ololade & Annegarn, 2013) and that the cost of mining to sustainability and the environment is not correctly captured (Baker, Newell, & Phillips, 2014).	To what extent does the data available reflect the performance of mining organisations in terms of the ESD activities and how do these contribute to sustainability in monetary and non-monetary terms?	Actual interviews, industry reports, organisational reports	Nominal and categorical data	Analysis of the sentiments expressed in the interview and compare it to the impact reported in the industry and organisational reports

Problem or scope of project stated here					
Sub-problem	**Literature Review**	**Hypotheses or propositions or questions**	**Source of data**	**Type of data**	**Analysis**
Integration of sustainability efforts in the communities, with utilisation of waste material as a resource for ESD	Development of local enterprises for exploitation of mining waste (Ololade & Annegarn, 2013) and beneficiation of mining waste acting as a valuable resource to promote sustainability of host communities beyond mine closure (Ferraz, 2016).	To what extent does exploitation of mining waste create sustainable enterprises that are able to create employment opportunities and improve livelihoods?	Actual interviews, industry reports, organisational reports	Nominal and categorical data	Analyse the interviews to gauge how the community enterprise views mining waste and whether the mining companies are supportive of utilising that as a resource for ESD.

Problem or scope of project stated here					
Sub-problem	**Literature Review**	**Hypotheses or propositions or questions**	**Source of data**	**Type of data**	**Analysis**
To check if mining companies' ESD initiatives are fit for purpose, and whether their implementation mirrors expectations of host communities	The establishment of (CRD) functions within the mining companies to act as an interface between the company and the communities (Kemp & Owen, 2013). Building stakeholder relationships (Berman, Wicks, Kotha, & Jones, 1999) that would make a meaningful contribution towards community development, in terms of size and impact (Moagi, 2015).	Are mining companies' engagement efforts contributing to effective implementation of ESD, which ultimately lead to sustainable livelihoods in the communities where they operate?	Actual interviews, industry reports, organisational reports	Nominal and categorical data	The analysis will look at whether the community expectations are met in terms of ESD and if this is the promise made by the mining companies.

The standard letter with Zimele and Anglo American as an example.

Dear Participant

I am conducting a study as part of my Applied Research Project for the Masters in Business Administration (MBA) programme at the University of the Witwatersrand, Johannesburg. This letter serves to request your participation in the study. The study has been approved by the University and permission granted to contact potential participants, such as yourself, who have participated in the Zimele enterprise and supplier development programme.

This is voluntary and there will be no consequences for accepting or declining to participate, and it you participate, all the information that you provide will be used only for this study and kept confidential.

The purpose of this study is to determine if the ESD programme function for sustainability in the mining operation as envisaged by the Mining Charter as well as the Anglo American's transformation strategies. This will be structured in terms of one-on-one interviews with the participants, with a recording being made, transcribed and used only for the study. The interview will last no longer than 45 minutes.

If you decide to participate in this research, please click accept on the bottom of this email and I will follow up with a request for appointment for the interview. If you need any clarity or have questions on any aspect of this request before deciding on whether to participate, please let me know.

I hope that this is in order and looking forward to interacting with you.

Semi-structured questions

The structure will afford the interviewer answers to the following questions:

1. How do different mines run their ESD initiatives in communities?
2. Is sustainability the logic that underpins it?
3. How are the stakeholders engaged?
4. Is there a buy-in or alignment between these stakeholders?
5. Are the enterprises pursuing sustainability as their core business?
   5.1. What are the specifics of these projects?
6. Do the enterprises find value in the ESD programmes?
   6.1. What is your experience of the programme?
   6.2. Which aspects of the projects were useful and how?
   6.3. Which aspect were least useful? What can the programme improve on?
   6.4. How did you engage with the programme?
   6.5. How did the business benefit from the programme? What has changed in the business since the entrepreneur's participation in the programme and would that be attributed to the ESD programme?
   6.6. Did the programme meet the participant's expectation or the promise it has made? What were those expectations and promises?