

# A Framework for Structured Incubators and Economic Emancipation

Dr Wynand Goosen

Swiss Institute of Management & Innovation

**Abstract-** This study aims to investigate the possibility of creating structured, entrepreneurial incubators to address macroeconomic problems. Various countries face Macro Economic problems such as Energy, Pollution, Water Shortage, and Unemployment. Formal SMEs contribute up to 40% of GDP in emerging markets and provide 70% of employment. The possibility of incubating SMEs to address Macro Economic Problems should be investigated to stimulate the Economic Emancipation of the youth.

The principle of a "Structured Incubator" is born from the problem that the formal economy can no longer supply the required growth in "jobs" that our society needs. Instead, economies must create "Marginal" capacity and new industries to facilitate the "Economic Emancipation" of its people. Business incubation is one of the most viable tools for increasing the number of small businesses. South Africa needs a new Framework to develop the Structured Incubators' role in creating small businesses. Such Structured Incubators would need to capacitate themselves to take entrepreneurship to scale. New SMEs can be developed in Construction, Catering, Water Saving, E-Waste, Hairdressing, Plastic Recycling, Retail, Trade, Solar, and many other industries if individuals can be capacitated in cohorts to become SMEs/.

**Methodology -** The need for structured incubators is supported by a literature review, a survey of youth needing economic emancipation, an Industry Analysis and the researcher's experience in training young entrepreneurs. The Grounded Theory approach is used to identify concepts and categories that inform the themes in support of structured incubators.

**Findings-** Given the above, we must equip people with skills to become less dependent on the State. Macroeconomic problems should be viewed as the source from where SME opportunities emerge. A Framework for capacitating Structured Incubators that can develop large numbers of young people in cohorts must be developed. Such incubators must be capacitated, as current incubators are not developing entrepreneurs at scale. Individuals in need of economic emancipation could be trained to operate as SMEs and provide more employment.

**Recommendations -** The study suggests that structured incubators could solve macroeconomic problems, like poverty, unemployment, and the need for economic growth. A new structured incubator Framework should aim to identify and develop young people into successful small enterprises (SMEs) over three to four years through training and support from a team of business advisors. This approach could create new industries and jobs, reduce poverty, and promote economic stability. The study highlights the importance of job creation and the need for people to be equipped with the skills required to become self-sufficient and less dependent on the State. However, structured incubators would have to be capacitated themselves in order to train potential young people as SMEs.

**Keywords:** Macro Economic Problems; Structured Incubation; Scaling; Unemployment; Entrepreneurship; Economic Emancipation. SMEs.

## I. INTRODUCTION

Unemployment in South Africa is estimated to be above 33% (MacroTrends, 2022). Record power outages hamper business output, which limits new employment opportunities. The sluggish economic growth is further blamed on strict labour laws that have weighed on the ability of local companies to hire additional workers. (Naidoo, 2022). There are various programs to stimulate the development of Entrepreneurship in South Africa. Agencies such as Leda, Seda, NYDA, TIA, and DTI are examples of government-driven initiatives to establish new businesses (Enterprise, 2023). The Sector Education Authorities (Seta's) also provide funding for New Venture Creation programs to individuals wanting to start business programs. The Allan Gray Entrepreneurial Challenge invites young people from different backgrounds to submit proposals for a national startup competition (Allan Gray Entrepreneurship Challenge, 2023). This challenge, as well as all the agencies mentioned, follows a model where the individual entrepreneur develops a proposal and submits such to the agencies said. Thus, agencies receive many submissions from individuals wanting to start small businesses. Although this demonstrates initiative from the individuals, more can be done to promote a more structured, scalable model for developing entrepreneurship, given the need for economic emancipation.

The proposals for multiple startups often reflect a fragmented approach to entrepreneurial development. Various Macro Economic Problems can be addressed by developing cohorts of young entrepreneurs. Plastic pollution could be addressed by developing cohorts of small entrepreneurs in Plastic Recycling. Water Saving devices could be managed by creating a distribution network for water-saving devices (Government, 2017). Installing Solar Solutions for homes and businesses is a national opportunity for thousands of entrepreneurs.

## II. PROBLEM STATEMENT

Macro Economic Problems are not considered opportunities to build scalable incubators and solve unemployment problems in South Africa (Matlali, 2021). Small and Medium Enterprise (SME) development is focused on assisting emerging individuals with localised ideas to establish startups. The current startup culture depends on the individual identifying and proposing business ideas instead of analysing macroeconomic problems. There are no attempts to consider inviting cohorts of entrepreneurs to establish similar businesses simultaneously. Such an initiative could consolidate resources for developing a group of entrepreneurs to address macroeconomic problems as a cohort. To give gestalt to such a practice, a Conceptual Model (Framework) would have to be designed to address the creation of structured incubators to solve the mentioned Macro Economic Challenges.

### The problem summarised:

- Limited understanding that Macro-Economic issues maybe hold opportunities
- No Framework for Translating Macro-Economic Problems into small business
- Limited skills to capacitate unemployed youth to solve Macro-Economic problems
- Limited resources to develop Structured Incubators
- Absence of a theoretical framework to enable such structured incubators

## III. LITERATURE REVIEW

The literature review investigates the status of Macro Economic problems in South Africa as a possible source for SME development. The current incubation approach, internal capacity and development ability are considered.

### a. Conceptual Framework

#### Macro Economic Problems

Regarding macroeconomic constraints, South African Economic growth slowed to an estimated 2% in 2022 and is expected to continue lower in 2023 to just 1,7% (It-Online, 2023). The change was below potential in 2022 due to ongoing load-shedding. The economy is expected to continue to underperform in 2023 due to the desired regular implementation of rolling blackouts. No economic growth is a real possibility (Marais & Masego, 2023). According to Investec Bank, higher interest rates will add to the weak domestic growth (Bishop, 2023). The limited outlook on economic growth implies the limited ability to grow employment.

#### Unemployment

The formal sector can not solve unemployment in South Africa. Unemployment in South Africa has risen since 2008 (Burger & Fourie, 2019). At the same time, economic growth was slow, thus indicating that the formal economy cannot solve the need for jobs. In addition, there is a skills mismatch between what the economy needs and what people have (Abernathy, 2017). Unemployed people often do not have the required skills for employment. Unemployed people have to be economically engaged. The only rational solution is the creation of SMEs that can employ more people and provide an income for the entrepreneur. Small-and-medium-sized enterprises (SMEs) have always been great drivers for employment (Business Partners, 2021). Unemployment is also a Macro Economic problem. If more SMEs can be created, more unemployed people could be employed.

#### South African Electricity Shortage

In May 2022, the President of South Africa had to cancel a trip to Davos and return to South Africa to deal with the electricity crisis. "South Africans have endured power cuts for years, but 2022 was the worst on record with 205 days of rolling blackouts, as ageing coal-fired power plants broke down and state-owned power utility Eskom struggled to find the money to buy diesel for emergency generators" (Ziady, 2022). According to (Brandt & Ndenze, 2023), Outgoing Eskom CEO Andre de Ruyter described the load-shedding outlook for 2023 as extremely bleak. South Africa continues to lose billions of rands in earnings, productivity, turnover, and opportunities due to the limited availability of electricity (Coflow, 2023). Businesses are forced to make alternative arrangements to keep operating, while households have to adapt to a new normal of load shedding in South Africa. The failing electricity supply is a Macro Economic problem that needs to be addressed by the government.

#### The Role of SME Development

A study in Umlalazi considered the employment trend of 100 small businesses, revealing that 55 % of the respondents indicated that their business reduced unemployment. Small companies within the case study play a dominant role in reducing unemployment and alleviating rural poverty (Jili, Masuku, & Selepe, 2017). If a small business can create employment, the incubation of startups is justified. Aspen Network of Development Entrepreneurs (ANDE) suggests that further Research is needed to determine how Business Development Service Providers should set up to create sustainable businesses and upskill those who go through their programs (Aspen Network of Development Entrepreneurs, 2023). How incubators are structured could be significant. This requires consideration of macroeconomic demands when structuring incubators (Van Eck, et.al., 2018).

### b. Theoretical Framework

The theoretical framework for this research study is based on entrepreneurship and small business development and the relationship this ought to have with Macro Economic Problems. Findings from previous studies, such as the study conducted in Umlalazi, is a starting point for developing the theoretical framework to integrate the concepts of entrepreneurship, small business incubation, and the role of business development. The Department of Trade and Industry in South Africa (DTI) published guidelines for creating

a Business Incubator that is about the identification of opportunity. The title and translation of Macro Economic opportunities may be an excellent example of such a business opportunity (South Africa Business Incubator Establishment Handbook, 2014).

Several economic theories support the idea of business incubation:

1. Schumpeterian theory, argues that innovation and entrepreneurship drive economic growth. According to (Langroodi, 2021), the Schumpeterian system of economic thought was built to realise a necessary symbiosis between economic, historical, political, social, and all other elements of the functioning and development of the capitalist world. The theory suggests that “Macro Economic Problems” can be addressed by establishing business incubation by providing resources and support to entrepreneurs (Langroodi, 2021).
2. Investing in the skills and knowledge of individuals is essential for economic growth. Business incubation can help develop entrepreneurs by providing education, training, and mentoring. (Mubaraki & Busler, 2013) suggests the potential benefits of business incubation as a process while focusing on identifying the economic and incubation theories as a tool for economic development.
3. Resource dependency theory (Nkemjika, 2012) discusses dependency as a condition that evolves over time between two states, where one party develops dominance at the expense of another. Dependency on larger business organisations is inevitable in developing Small Business Enterprises (SMEs). Large corporates with Enterprise Development initiatives can outsource to SMEs.
4. Cluster theory suggests that concentrating industries in specific regions creates several advantages. Due to the high number of businesses in an area, companies are forced to innovate further and produce advancements in their respective industries. Business incubation can help foster such clusters' development by bringing together startups in similar industries and providing them with support and resources. (Wickham, 2005).

These economic theories support that business incubation can address macroeconomic problems. This study considers viewing macroeconomic problems as a source for operationalising business development and incubation. Such incubation can promote economic development by fostering entrepreneurship.

#### c. Empirical Framework

Empirical literature about the correlation between macroeconomic opportunities and business incubation remains limited, particularly in forming structured incubators. This indicates a need for further investigation into how macroeconomic opportunities could be used to design business incubators. A review of business incubation in South Africa revealed the existence of 58 active incubators within the country (Crampton, 2019). Examination of these incubators brought to light several common characteristics:

1. The incubators showcased a specific industry focus, tailoring their resources and support services to cater to particular sectors. This approach ensures targeted assistance aligned with the unique needs and challenges faced by entrepreneurs operating within those industries.
2. The incubators offered comprehensive training programs and support services aimed at nurturing entrepreneurial skills and fostering the growth of businesses. These initiatives included mentorship, workshops, networking events, and access to industry experts, all contributing to developing entrepreneurs and their ventures.
3. All the incubators evaluated in the study required entrepreneurs to present their own business ideas for consideration and potential support. This approach places the onus on individuals to develop viable business concepts and take ownership of their entrepreneurial journey.
4. The incubators recognised and acknowledged the individuality of each business within their ecosystem. This acknowledgement led to personalised support and guidance, ensuring that the specific needs of each entrepreneur were addressed effectively.
5. The incubators provided access to funding resources, assisting entrepreneurs in securing the necessary financial support for their ventures. This financial backing played a crucial role in overcoming the challenges associated with capital constraints during the early stages of business development.
6. The review of existing incubators revealed no evidence regarding clustering business cohorts within the incubator environments. This absence raises questions about the potential benefits of fostering collaborative relationships and knowledge sharing among entrepreneurs operating within the same incubator.
7. The literature review did not identify direct evidence linking the activities of the evaluated incubators to addressing macroeconomic challenges. This finding suggests that there may be untapped potential in exploring how incubators can contribute to macroeconomic growth and development. This finding underscores the importance of exploring alternative incubator models that can facilitate business scaling based on macroeconomic opportunities.

The Transnet Enterprise Development Hub assists with business development, Financial support, Procurement Advisory services, Central Supplier Database Registration and Queries (CSD) Services, TAX, PAYE, VAT and other related services. From time to time, Business Training programs are also hosted (Transnet, 2023). However, there is no central recruitment of potential entrepreneurs or cohort capacitation toward solving a particular Macro Economic Problem. Injini, a Cape Town-based Ed-Tech Incubator, is a registered Non-Profit Company that exists to improve educational outcomes in sub-Saharan Africa. Injini supports critical stakeholders in increasing education's quality, access and relevance throughout the region.

Individual startups in the Ed Tech space are invited to apply and showcase their own ideas. Injini has no cohort recruitment of would-be entrepreneurs (Injini, 2023). With Shanduka Black Umbrellas, the entrepreneurs frequently selected will have proven skill levels,

such as an apprenticeship, but very little business experience. Applicants must be in the post-conceptual stage to qualify (Umrellas, 2023). Ekasi Labs, is another incubator focused on Bio-economy, Green economy, Creative Economy and Multimedia. EKasiLabs provides business development support to start-ups in priority sectors in various townships throughout Gauteng. They collaborate with various partners, including local government and academic institutions (Hub, 2023).

The eGoliBIO Life Science Incubator Trust focuses on commercialising Life Science research, products, services and technology platforms. This incubator assists and accelerates biotech SMEs' development, sustainability and financial independence across South Africa (EgoloBio, 2023). The South African Renewable Energy Business Incubator aims to bridge the gap between prototypes and manufacturing renewable energy and energy efficiency technology. The incubator aims to support entrepreneurs in product development or manufacturing products or components (Sarebi, 2023).

State-owned enterprises (SEO's) that operate in the SME support ecosystem, such as the Technology Innovation Agency (TIA, 2023), Small Enterprize Development Agency (Seda, 2023) and Limpopo Development Agency (Leda, 2023), all operate on the basis that the individual must bring an idea to the table.

The existing empirical literature on the relationship between macroeconomic opportunities and business incubation reveals a research gap that suggests further exploration. The commonalities identified among the evaluated incubators in South Africa provide valuable insights into their structure and operations. However, the lack of clustering, limited direct connection to macroeconomic challenges, and absence of incubators that generate business ideas pose opportunities for future research and the development of alternative incubator models that promote scaling and leverage macroeconomic opportunities more effectively. The Aspen Network of Development Entrepreneurs studied the South African Incubator and Accelerator Landscape. However, several themes were identified, and no evidence of any centrally planned cohorts for structured incubation is mentioned (Van Eck, et al., 2023).

#### IV. SIGNIFICANCE OF THE RESEARCH

The Research's significance is embodied in presenting a system that can address macroeconomic problems while developing entrepreneurial opportunities that lead to individuals' economic emancipation. By providing solutions to macroeconomic issues and creating opportunities for individuals to start and grow their businesses, this system has the potential to create positive and lasting impacts on local communities and the larger economy. By fostering entrepreneurship and empowering individuals, the research may help to increase economic activity, create jobs, and spur economic growth.

##### a. Significance to Academic Community

The development of the proposed framework represents a contribution to the body of knowledge in structured incubators. The methodology and Theory of managing startups and entrepreneurial development will be enhanced (Klofsten & Jones Evans, 2000). Development economics, business management, and entrepreneurship theory would benefit from model creation that could be used in further Research in various areas.

##### b. Significance to Industry

As the structured incubators will consist of cohorts, the additional entrepreneurs could establish forums, chat groups, and professional associations to manage knowledge sharing, market development, and further business creation. By providing a structured environment for entrepreneurs to network, share knowledge and collaborate, the incubators can help to spur innovation, increase market development, and create additional revenue streams.

##### c. Significance to Others

Individuals with the motivation and drive could learn the skills to function as entrepreneurs in an environment that assists SME development. As SMEs grow, their ability to create employment would be stimulated, leading to broader social participation for unemployed individuals. Environmental factors like pollution, lack of green energy, and other social ills would also benefit.

#### V. Scope of the Research

The Scope of the Research is to establish a **theoretical framework** for structured incubators, to address **macroeconomic problems**. The Research explored how the incubators can be **capacitated** to develop SMEs at scale. The structured incubator is a "Concept Model" for scaled SME creation.

#### VI. RESEARCH QUESTIONS

If a model for translating macroeconomic problems into cohorts of entrepreneurs as solutions can be developed, it would represent a Framework that could be used widely. This required an investigation that includes the following:

1. What is the potential of structured incubators to address macroeconomic problems such as energy, pollution, water shortage, and unemployment in South Africa?
2. What key factors influence and support the development of structured incubators?
3. How would structured incubators be capacitated to drive economic growth in South Africa?
4. How would Structured Incubators capacitate potential entrepreneurs as SMEs?

## VII. Research Objectives

The objective of this study is to explore how structured incubators can effectively tackle macroeconomic challenges in South Africa by

1. Examining the necessary support required for the development of structured incubators.
2. Assessing the efficacy of structured incubators in fostering the establishment of new businesses and fostering economic growth in South Africa.
3. Offering recommendations for enhancing and optimizing structured incubators to address macroeconomic issues and promote the development of entrepreneurship.
4. Creating a framework that can identify opportunities for implementing structured incubators within the context of macroeconomic problems.

## VIII. METHODOLOGY

### a. Research Design

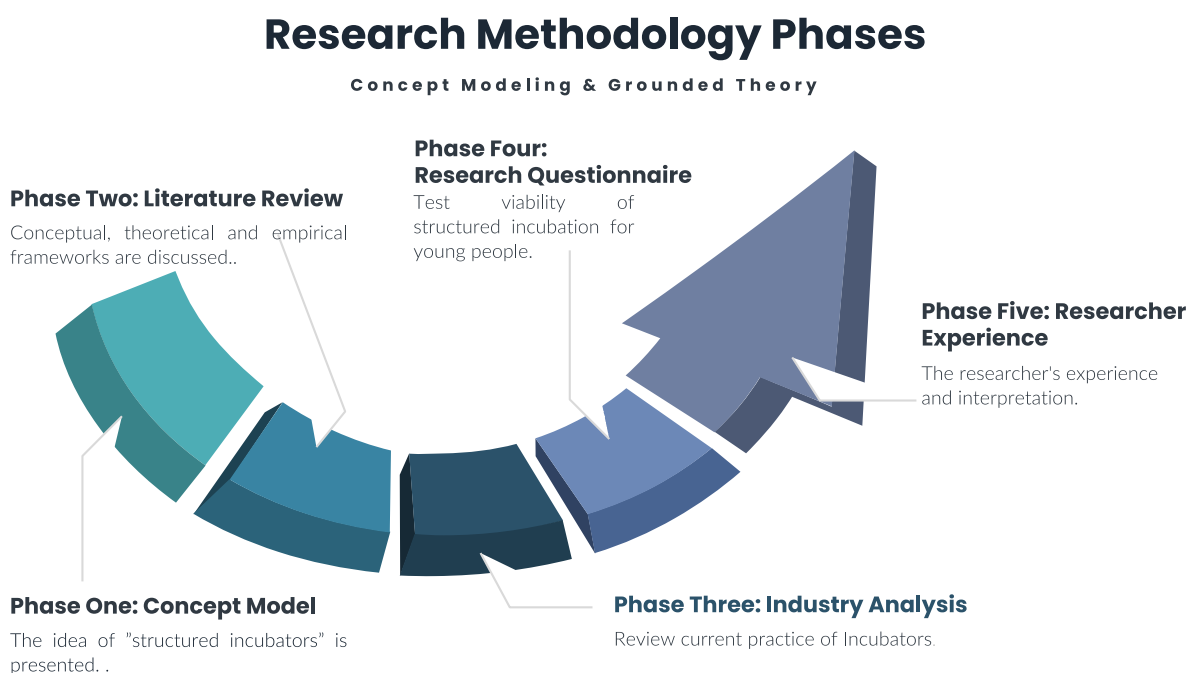
The research uses a mixed method that combines Conceptual Modeling and Grounded Theory. The conceptual model is presented and discussed in the introduction. The research design comprises a Literature Review, an Industry Analysis, a Student Survey, and the Researcher's Personal Experience. All four of these were analysed using Grounded Theory. Categories and Concepts were identified in each, from where "Themes" emerged. Questionnaires were developed to survey young people in search of economic opportunities.

The development of a Conceptual Framework suggests that the researcher defines and contains the research within a set of boundaries that justifies the research (Crawford, 2020). A conceptual model or framework describes the theoretical constructs (and variables) (Creswell, 1994). The conceptual model proposed is that of a Structured Incubator.

The next step included a review of the literature regarding Macro Economic Problems and SME development. Then, a review of the 58 registered Incubators is considered. The work of six incubators is discussed in the empirical review, whilst all 58 are considered in the Grounded Theory analysis. Peer-reviewed journals and articles, books, conference papers, and other relevant sources were consulted to understand the current views of incubators. All literature pivots around these topics. A research questionnaire sent to 200 young people seeking income opportunities yielded 181 responses. The questionnaire aimed to test the viability of developing structured incubators to guide the participants into becoming SMEs.

An interpretation of the literature study and industry analysis is included. Finally, the researcher's personal experience is used to unpack the current and possible future state of incubation in light of the literature study, industry discussion, and possible GAP analysis.

The second part of the research method used encompasses a Grounded Theory process. The Literature Review, Incubator Industry Analysis, Youth Survey and Researcher Interpretation will be considered for four sets of Concepts, and from the Concepts, Categories were identified. Four Themes emerged as indicators and motivators for developing the Theoretical Framework for Structured Incubators from the Categories.



**Figure 1: Research Methodology**

#### b. Unit of Analysis

To measure unemployment, the number of unemployed people will be considered a percentage of those who want employment but cannot find any. This unit of measurement enables a comparison of the level of unemployment across different periods and locations and provides a meaningful and relevant indicator of the labour market situation. For all other measurements, the unit of analysis will be in South African Rand (ZAR), the local currency.

#### c. Sampling Design

This Research adopts a mixed method and relies on a qualitative research approach. Sampling only applies in conducting a research survey amongst would-be entrepreneurs. The study identified 250 young graduates pursuing an income source and requested input regarding the acceptability of joining a structured incubator and becoming an SME. The Research will rely on various sources and methods to gather data and information:

1. Concept Modeling of Macro Economic Problems and Structured Incubation.
2. Review literature on the main macroeconomic issues in South Africa, including incubators.
3. Analysis of the South African startup and incubator ecosystem. Review existing data on the startup and incubator landscape.
4. Reflecting on the researcher's own experience and knowledge of the subject matter, as well as drawing on Grounded Theory to develop a deeper understanding of the data, and elicit themes.

Through a qualitative research approach, an in-depth understanding of the relationships and dynamics within the South African startup and incubator ecosystem is explored. Meaningful conclusions and recommendations emerge from the relationship between macroeconomic problems and business incubation.

### IX. DATA COLLECTION METHODOLOGY

The data was collected from Literature, a review of all 58 incubators, a graduate survey and the researchers' personal experiences. The analyses gathered information about the current practices and perceptions about the incubation of SMEs. Using a Grounded Theory approach,

the data collected was analysed into categories using an open method, which involves breaking down the data into smaller parts called concepts. The concepts were then grouped to identify themes. The themes inform the development of the theoretical framework for structured incubators. Data collection was conducted via five phases:

**Phase One:** The study starts with proposing a new incubation model that analyses Macro Economic Problems that can be solved by capacitating cohorts of young people as entrepreneurs. The essential feature is that the “would-be” entrepreneur is not expected to develop an idea, as the Structured Incubator presents the “**concept model**”.

**Phase Two:** The **literature review** further supports the concept model, where a **conceptual framework** is considered. The **theoretical framework** reviewed the essential Macro Economic Problems. The **empirical framework** analysed the current state of registered Incubators in South Africa by studying each operation and discussing a sample of 10%.

**Phase Three:** The literature review is supported by an **industry analysis** of current practices in the Incubator, startup, technology, and innovation industry. Through the Grounded Theory analysis, all 58 incubators are analysed. Concepts and Categories are developed. Findings are discussed against the Conceptual Model.

**Phase Four:** A research questionnaire was developed to test the viability of structured incubation for young people searching for a method to earn a living. Traditionally young people would be looking for a “job” however, as the labour market cannot provide enough jobs due to limited GDP growth, structured incubation as a concept proposes scaled entrepreneurship as a solution. The results from the questionnaire were used to extract Concepts and Categories that inform the research Themes.

**Phase Five:** The researcher's experience and interpretation were documented. Concepts and Categories informed the research Themes.

### X. DATA ANALYSIS

All data collected was processed using Grounded Theory. Each phase of the research design was processed by searching for concepts, clustering concepts into categories, and prompting themes to emerge from the analysis. This combination of data sources enabled a broader range of information and insights on macroeconomic problems, business incubation, and the South African incubator ecosystem. Themes helped to build a comprehensive understanding of the subject matter and to form meaningful conclusions and recommendations based on findings.

### XI. FINDINGS

#### a. Concepts identified from the Literature Review

The literature review developed an insight into the objectives of the research. The literature review identified the limitations of the Incubator Ecosystem and the need for a more effective, scalable system. In the next section, the study identified details regarding the concepts and categories identified during the literature review:

The Literature Review confirmed 12 Concepts. From these Concepts, five categories were developed:

<u>Category No</u>	<u>Category Description</u>	<u>Aligned to Research Objective</u>
Category 1	Develop a system to translate Macro Economic Problems into Earning opportunities.	1,4
Category 2	Capacitate the Eco System to enable Structured Incubation.	1,2,3
Category 3	Develop Methods to detect opportunities in Macro Economic Problems.	1,2
Category 4	Develop systems to operate structured incubation.	3,4
Category 5	Capacitate Mentors and Entrepreneurs to drive Structured Incubation.	3,5

**Table 1: Categories that developed from the Literature Review**

Categories 1 & 2 inform research objectives 1,2,3. Categories 3, inform objective 3. Category 4 & 5, informs objectives 2 & 3.

Category 1: In this category, it became evident that the current start-up industry does not consider Macro Economic problems as a factor in their process. Instead, the incubation industry is focused on the model where the would-be entrepreneur has to present a viable business idea. Macroeconomic elements would be implicit in the idea.

Category 2: Capacitate the Eco System to enable Structured Incubation. The startup and incubator ecosystem needs to be capacitated to enable the concept of Structured incubation. No system enables the development of entrepreneurs as a cohort. The structured incubator framework would require concept development and training programs for staff to enable the delivery of entrepreneurs at scale.

Category 3: Develop Methods to detect opportunities in Macroeconomic Problems. There are no methods of detecting Macroeconomic problems and linking them to potential business development opportunities. Stakeholders will have to be trained to be able to detect opportunities for developing SMEs from macroeconomic problems.

Category 4: Develop systems to operate structured incubation. The physical requirements of incubators are very important. Location, equipment, training programs, central services and mentoring would have to be provided. Quality assurance, measurement and continuous development require monitoring and analysis for lessons learnt.

Category 5: Capacitate Mentors and Entrepreneurs to Drive Structured Incubation. Training programs would have to be developed. Existing, accredited programs could be used but would need adaptation to allow for divergent thinking.

The literature review identified twelve concepts clustered into the above five categories. Category 1 informs research objectives 1 and 4 and underlines the need for macroeconomic planning. Category 2 underlines the need for capacitation. Category 3 informs research objectives 1 & 2. Category 4 informs research objectives 3,4, whilst Category 5 informs research objectives 3 & 5.

#### b. Concepts Identified from the Industry Analysis

Categories from the Industry Analysis were developed by considering the objectives and activities of the 58 registered incubators and four State Owned Enterprises in the South African Start-Up Ecosystem. The analysis was structured to develop an understanding of how these stakeholders operate and to identify areas of improvement. The analysis was conducted against the rising macroeconomic problems in South Africa. The analysis identified a new possible framework to address issues of scaling entrepreneurial development and conceptual understanding of SME development. The Industry Analysis confirmed 14 concepts. From these concepts, five categories were developed:

<u>Category No</u>	<u>Category Description</u>	<u>Aligned to Research Objective</u>
Category 1	Limited focus on Macro Economic needs	1,3
Category 2	Central research activity not demonstrated	2,3
Category 3	No cohort thinking	2,3
Category 4	Expensive to provide custom service	3,4
Category 5	System needs scaling	3,4,5
Category 6	Alternative thinking is needed	3,5

**Table 2: Categories developed from the Industry Analysis.**

Category 1 informs research objectives 1 & 3. Category 2 inform objective 2 & 3. Category 3, Informs 2 & 3. Category 4 informs objectives 3 & 4. Category 5 inform objective 3,4, & 5. Category 6 informs objectives 3 & 5.

Category 1: Limited focus on Macro Economic needs. No evidence was found of incubators that focus on macroeconomic needs as the source of inspiration to create SMEs. Incubators rely on would-be entrepreneurs to present new ideas and demonstrate viability.

Category 2: Central research activity is not demonstrated. Limited research on success, failures and lessons learnt are published on the websites of incubators and SEOs in question. The start-up ecosystem could serve as a source of empirical research that can significantly contribute to the South African economy.

Category 3: Incubators rely on the individual to present an idea. There was no evidence of “central ideas” to create entrepreneurs on the scale. Incubators could capacitate groups of SMEs to create a “route-to-market” solution for new products and expand market access for existing products.

Category 4: Incubators are geared to help each SME separately. Although some programs exist where entrepreneurs attend in groups, each SME is built as a unique business. Providing a custom service for each SME is expensive and time-consuming. In addition, SMEs are created on a one-by-one basis.

Category 5: The South African startup ecosystem needs scaling. Although there is evidence of support for many individuals, the level and limited output fail to create a significant impact. South Africa needs an SME sector that could employ millions of people more than the current level.

Category 6: Alternative thinking is needed. The current state of the South African economy, GDP per capita, the electricity crisis, unemployment and other macroeconomic problems indicate failed thinking. To scale entrepreneurship, the startup ecosystem will need to develop a new way of thinking about objectives and the rapid development of entrepreneurs.

#### c. Concepts Identified from the Research Questionnaire

Categories from the research questionnaire intended to elicit comprehensive responses from participants about the need for economic emancipation. The survey was structured to understand the needs for development and training. In the process, the research identified a possible framework to address the purpose, awareness, and conceptual understanding of structured incubation. The Research questionnaire confirmed 12 concepts. From these concepts, five categories were developed:

<u>Category No</u>	<u>Category Description</u>	<u>Aligned to Research Objective</u>
Category 1	Needs Economic Emancipation	1,4, & 5
Category 2	Wants guidance	4 & 5
Category 3	Wants formal Training	2 & 3
Category 4	Wants community formation	4 & 5
Category 5	Wants to learn more about Technology	2

**Table 3: Categories developed from the research questionnaire.**

Category 1 informs research objectives 1,4 & 5. Category 2 inform objective 4 & 5. Category 3, Informs 2 & 3. Category 4 informs objectives 4 & 5. Category 5 informs objective 2.

Category 1: Participants all identified a need for economic emancipation. The need to create an income is not limited to a “job” but could include any means to create an income. Participants are open to possibilities.

Category 2: Participants need guidance. Training is needed to develop more skills to enable economic emancipation. This requires a facilitator with high-level technical knowledge of entrepreneurship and insight into possible areas of starting an SME.

Category 3: Participants prefer formal, accredited training. A bias towards certification as indicated. Emotional, financial, and academic support needs were highlighted.

Category 4: Community forming is essential. The development of support systems and professional communities was indicated as critical. Professional bodies with CPD structures are essential. Further training opportunities are also needed.

Category 5: The need to work with Technology was also indicated. Computer literacy and access to data and devices remain a challenge to development.

#### d. Concepts identified from the researcher’s personal experience

The researcher’s personal experience confirmed twelve concepts. From these concepts, six categories were developed:

<u>Category No</u>	<u>Category Description</u>	<u>Aligned to Research Objective</u>



Category 1	New Model of Incubation is needed	1 & 2
Category 2	Ensure more effective ways of skills transfer	1, 3, & 4
Category 3	Moral and Financial Support needed	2, & 4
Category 4	Mentor SME's in cohorts	1,4 & 5
Category 5	Macroeconomic problems - point of departure	1,2,4 & 5
Category 6	Motivation and Critical Thinking is essential	1,2,3, 4 & 5

**Table 4: Researchers' personal experience.**

Category 1 informs research objectives 1 & 2. Category 2 supports objectives 1,3 & 4. Category 3, Informs objectives 2 & 4. Category 4 supports objectives 1,4 & 5. Category 5 inform objective 1,2,4 &5. Category 6 reports objectives 1,2,3,4 & 5.

Category 1: Given the need for scaled entrepreneurial development, a new **Incubation model** is needed. The existing startup ecosystem fails to take entrepreneurship to scale. To solve macroeconomic problems whilst facilitating the economic emancipation of all South Africa's people, a new way of incubating SMEs at scale is required.

Category 2: To ensure the effective **transfer of entrepreneurial** skills to would-be SMEs, new ways of capacitating would-be entrepreneurs must be developed. Entrepreneurs would need to be selected not based on their own original idea but on their ability to implement centrally designed solutions and SMEs independently.

Category 3: Would-be entrepreneurs would need practical support. Assistance would be required to access and develop markets, including access to capital. **Moral support** and continuous professional development would have to feature in the support program. A system of "scaffolding" would be needed to grow SMEs to be employers.

Category 4: Potential entrepreneurs would need to be mentored as a cohort. Professional bodies could be formed to assist with developing and providing central services such as registration, accounting and compliance. Entrepreneurs could be given territories to operate in whilst technology could play a central role in accessing markets.

Category 5: Identifying, analysing and interpreting macroeconomic problems would be the point of departure in a redesigned startup ecosystem. Macroeconomic problems must be unpacked and investigated as the "source" of opportunity. Incubators should be structured from such opportunities to provide solutions and create SMEs.

Category 6: Motivation and critical thinking skills are essential in the fourth Industrial Revolution. A new level of Critical Thinking skills is needed to ensure the practical application of incubation. This will require large-scale capacitation of all stakeholders. A new way of thinking is essential if a new economic reality is to be created.

## XII. Themes

*Firstly*, **Macro Economic Analysis** should be conducted as the source of opportunities for economic emancipation. This view informed *Theme Two*, which indicated that a new **Framework for Structured Incubation** is required. In this framework, entrepreneurial development activities must happen in cohorts and at scale. The theme suggests the massification of SME creation. The *Third Theme* illuminates the shortcomings of the current startup ecosystem. Incubators themselves need to **Capacitate** to meet the demands of scaled SME creation. This in turn informs the *Fourth Theme*, to capacitate would-be entrepreneurs differently. The selection process for potential should be updated, and the training programs to **Capacitate Entrepreneurs** with such potential must be redeveloped.

### Theme 1: Macro Economic Analysis to Detect Economic Emancipation Opportunities

- Macro Economic Analysis needs to focus on economic emancipation
- Both employment and route to market can improve.
- Training drives the development of Actual Human Capital.
- SME's provide employment.

According to the world bank, Macroeconomics focuses on the performance of economies – changes in economic output, inflation, interest and foreign exchange rates, and the balance of payments (Bank, 2023). The bank elaborates further by suggesting that sound monetary and fiscal policies can reduce Poverty, social equity, and sustainable growth. However, the policy would need to adapt considerably to create economic emancipation for in South Africa. To create scalable entrepreneurship, identifying opportunities would need to be much more focused and creative than the current practice. The current source of entrepreneurial talent is seen as the single entrepreneur that "comes up" with a new idea. For those that manage to access an incubator, such an idea is supported by capacitating the entrepreneur, mostly individually, rather than capacitating a group of entrepreneurs simultaneously.

Macroeconomic analysis is to focus on economic emancipation. Current macroeconomic problems in South Africa include unemployment, electricity shortages and crime. Unemployment could be addressed by creating cohorts of entrepreneurs that can become SMEs. Such SMEs will provide an income for their owners, employ new entrants and grow a route to market for new products.

The successful SME spends money on a range of products and services, creating more demand and, subsequently, more economic activity. The chain reaction of economic emancipation can be seen in countries like Thailand, Dubai and Singapore. Due to

innovative economic policies, Thailand has become an upper-middle-income economy and is progressing towards meeting the Sustainable Development Goals (Bank, 2023). SMEs provide employment. Policymakers, businesspeople and civil society should develop measures to work towards economic recovery. (Morobe, 2023).

### **Theme Two: A framework for Structured Incubators must be developed.**

- Identify a business idea from macroeconomic problems
- Develop an Incubator Concept
- Capacitate Incubator Staff
- Recruit potential entrepreneurs
- Capacitate entrepreneurs
- Monitor and support for 3 to 4 years

“Structured Incubator” refers to a business incubation process where a central business idea is used to capacitate multiple individuals as small business owners. Using a central plan, cohorts of individuals are capacitated as entrepreneurs and SME owners to provide such services. The incubator provides support that includes marketing, accounting and complaint, as well as training and CPD activities.

The structured incubator would require a project management plan with a phased approach to development. The structured incubator would need to include the following elements:

- A sound business idea that can be rolled out at scale
- A pool of people from where would-be entrepreneurs can be recruited
- A team of subject matter experts in business creation
- A team of subject matter experts in the technical requirements of the business
- A team of coaches and mentors
- Various training programs
- A system to Quality Assure delivery
- Continuous Feedback system

Each Structured Incubator would require a project scope before development can take place. A structured incubator could also evolve into a professional body that provides long-term development for members. Continued support could ensure further research and development and may ensure the survival of the SMEs as a community.

A business incubator can also provide additional services to support the success and growth of entrepreneurs and small businesses:

1. Affordable office space, and co-working areas to provide entrepreneurs with a conducive work environment, including utilities, internet connectivity, meeting rooms, and other amenities.
2. Access to Funding, securing loans, connecting with investors or venture capital firms, or facilitating access to grant programs.
3. Business Planning and Strategy, including market research, competitive analysis, financial projections, and feasibility studies.
4. Mentorship and Coaching as well as guidance and advice to entrepreneurs.
5. Networking and Collaboration opportunities such as networking events, workshops, and industry-specific forums.
6. Access to Expertise who can provide guidance in areas such as marketing, sales, legal compliance, intellectual property, and technology.
7. Marketing and Promotion Support, including branding guidance, digital marketing strategies, social media campaigns, and public relations support.
8. Access to Workshops and Training Programs to enhance the skills and knowledge of the entrepreneurs.
9. Legal and Administrative Support, including business registration, intellectual property protection, compliance with regulations, and contract negotiations.
10. Alumni and Community Support to share their experiences, provide mentorship to new entrepreneurs, and contribute to the overall growth.

### **Theme Three: Capacitate the Incubator**

A comprehensive approach is necessary to capacitate, train, and ensure the long-term development of structured incubator staff. Staff must have the knowledge, skills, and resources to support and nurture entrepreneurs and SMEs effectively. To accommodate the change in approach from a one-by-one to a cohort of entrepreneurs strategy, the Structured Incubator would need to consider the capacitation of its own staff carefully:

1. Conduct a needs assessment to identify the staff's existing skills, knowledge gaps, and development areas. Develop a new scoping process to address cohort-style capacity building.
2. Create a training and development strategy that aligns with the goals and objectives of the structured incubator. Address the needs identified in the assessment, focusing on how business creation will occur, technical requirements, coaching, and other relevant skills for the cohort approach.
3. Design and implement comprehensive training covering theoretical knowledge and practical skills. Include workshops, seminars, online courses, mentorship programs, and on-the-job training opportunities.
4. Engage a team of subject matter experts in business creation and the technical requirements of the specific business ideas supported by the incubator. Provide the staff with specialised training and guidance to ensure expertise in their respective fields. Guide staff members to develop Personal Development Plans.
5. Implement a Continuous Professional Development (CPD) program. Include attending industry conferences, networking events, workshops and formal training to stay abreast with the latest trends.

6. Establish a system to ensure the quality assurance of the services provided by the structured incubator. Regular evaluations, feedback mechanisms, and monitoring processes are essential to identify areas for improvement.
7. Develop a QMS with clear policies and procedures that govern the operations of the structured incubator. Include staff roles and responsibilities, a code of conduct, performance expectations, and service guidelines for entrepreneurs and SME owners.
8. Consider the structured incubator's evolution into a professional body that provides long-term development for its members. Include research and development projects and networking opportunities to foster a supportive community of SMEs.

Structured Incubator staff should be influential business advisors with technical expertise, business acumen, and interpersonal skills. Business Knowledge should include understanding various aspects of business operations, including finance, marketing, sales, operations, and strategy. The ability to gather, analyse, and interpret data to assess the business situation objectively is essential. A business advisor should also possess strong problem-solving skills to identify root causes, brainstorm solutions, and develop action plans. Effective communication and active listening skills are also crucial for building relationships and establishing client trust.

Thinking strategically is vital for a business advisor to assess the long-term implications of decisions, identify growth opportunities, and help clients develop and execute strategic plans. A successful advisor must stay updated with industry trends, technologies, and best practices.

#### **Theme Four: Capacitate the would-be Entrepreneur**

- Select potential Entrepreneurs
- Develop Capacity Building Programs
- Train and Implement Programs
- Quality Assure process
- Report for Lessons Learnt and Improvement

The structured incubator presents the business idea to the candidates, who are expected to motivate why the program should accept them. A Pre-Incubation Phase includes an application and Selection Process where candidates submit their motivations and credentials. A selection committee evaluates the applications and invites successful candidates to the incubator program. Business Plan Development is centralised and used as the basis to capacitate candidates. Mentors and advisors guide the implementation of the vision, mission, and objectives. Financial projections, marketing strategies, and operational plans are formulated centrally.

#### **Training includes:**

- Business management, marketing, finance, operations, and legal compliance.
- Industry professionals deliver interactive sessions to enhance knowledge.

#### **Mentoring and Coaching:**

- Mentors provide guidance, support, and industry insights.
- Regular mentoring sessions address challenges, set goals, and track progress.

#### **Access to Resources and Infrastructure:**

- Entrepreneurs gain access to shared office spaces, labs, equipment, and technology.
- Technical support staff assist in utilising resources effectively.

#### **Networking and Collaboration:**

- Regular networking events, industry-specific forums, and peer-to-peer learning.
- Entrepreneurs engage with experts, potential partners, and investors.

#### **Business Development Support:**

- Entrepreneurs receive guidance in business development and customer acquisition.
- Assistance is provided in creating marketing plans, and digital marketing.

#### **Access to Funding:**

- Entrepreneurs are connected with investors, angel networks, or venture capital firms.
- Guidance is provided to prepare pitch decks and investment proposals.

#### **Post-Incubation Phase: a. Graduation and Transition:**

- Successful entrepreneurs graduate from the incubator program.
- Graduation ceremonies acknowledge their achievements and progress.

#### **Alumni Network and Ongoing Support:**

- Regular alumni events, knowledge-sharing platforms, and mentorship.
- Ongoing support is offered to sustain growth and foster collaboration.

**Continuous Professional Development (CPD):**

- Entrepreneurs have access to CPD programs to enhance skills and knowledge.
- CPD focus on emerging trends, technology advancements, and business practices.

Entrepreneurs in the structured incubator receive holistic support throughout their journey. By providing a combination of training and mentoring, long-term skills are developed. The structured incubator is focused on taking SME development to scale.

**XIII. Contribution to Theory Practice & Policy**

No	Theory	Practice	Policy
1	The development of structured incubation supports the stakeholders' needs.	Consult the stakeholders, the industry, potential clients, and the provider of the incubation.	Develop a policy to manage the process of developing incubation programs.
2	When structuring an incubator, the requirement of agility and diversity should be considered.	Analyse the macro economic problems.	Develop a policy to guide the agile development of incubators.
3	Incubation programs should be responsive and reflective of the actual needs of the industry.	Identifying industry needs should be informed by a strategic process, based on macroeconomic problems that ultimately drive the business objective of economic emancipation.	Develop a policy to guide the inclusion of responsiveness as a criterion when structuring an Incubator.
4	Investigating how the stakeholders experience the development of incubation systems determines economic emancipation.	This, in turn, drives the ability to achieve objectives such as economic emancipation.	Develop a policy guide to manage structured incubator development and the influence on economic emancipation.

**XIV. Conclusion and further research**

The findings of this study contribute to developing a theoretical framework for structured incubators in South Africa. The framework will comprehensively understand how structured incubators can address macroeconomic problems and support SME development. This will provide guidelines and recommendations for the establishment of structured incubators. The study is expected to contribute to the existing literature on SME development and incubation in South Africa and provide valuable insights for policymakers, economic development agencies, and stakeholders in the incubation sector.

**BIBLIOGRAPHY:**

1. Abernathy, T., 2017. *LinkedIn*. [Online] Available at: <https://www.linkedin.com/pulse/economic-development-skills-future-ted-abernathy/> [Accessed 21 May 2023].
2. Allan Gray. 2023. *Allan Gray Entrepreneurship Challenge*. [Online] Available at: <https://entrepreneurshipchallenge.co.za> [Accessed 30 January 2023].
3. Aspen Network of Development Entrepreneurs, 2023. *Aspen Network of Development Entrepreneurs*. [Online] Available at: <https://www.aspeninstitute.org/programs/aspen-network-development-entrepreneurs/> [Accessed 21 May 2023].
4. Bank, W., 2023. *The World Bank*. [Online] Available at: <https://www.worldbank.org/en/country/thailand/overview> [Accessed 28 May 2023].
5. Bank, W., 2023. *The World Bank*. [Online] Available at: <https://www.worldbank.org/en/topic/macroeconomics#:~:text=Macroeconomics%20focuses%20on%20the%20performance,sound%20monetary%20and%20fiscal%20policies.> [Accessed 28 May 2023].
6. Bayhan, A., 2022. *Business incubator process: a policy tool for entrepreneurship and enterprise development in a knowledge – based economy*, s.l.: Ministry of Finance: Pakistan.
7. Bishop, A., 2023. *Investec*. [Online] Available at: [https://www.investec.com/en\\_za/focus/economy/sa-economics.html](https://www.investec.com/en_za/focus/economy/sa-economics.html) [Accessed 30 January 2023].
8. Brandt, K. & Ndenze, B., 2023. *2023 Load shedding outlook remains bleak, says De Ruyter*, Johannesburg: EWN.
9. Burger, P. & Fourie, P., 2019. The unemployed and the formal and informal sectors in South Africa: A macroeconomic analysis. *South African Journal of Economic and Management Sciences*, 11(1), pp. 1-2.
10. Business Partners, 2021. *Business Partners*. [Online] Available at: <https://www.businesspartners.co.za/small-ways-that-smes-can-help-tackle-sas-unemployment-dilemma/> [Accessed 21 May 2023].
11. Business Tech, 2022. *Boom in small-scale solar installations in South Africa*. Johannesburg(Gauteng): Business Tech.
12. Coflow, 2023. *Coflow*. [Online] Available at: <https://blog.ecoflow.com/za/how-does-load-shedding-affect-community/> [Accessed 21 May 2023].
13. Content, R., 2022. *Rockcontent*. [Online] Available at: <https://rockcontent.com/blog/what-is-curated-content/> [Accessed 1 March 2023].

14. Crampton, N., 2019. *Entrepreneur*. [Online] Available at: <https://www.entrepreneur.com/en-za/starting-a-business/the-definitive-list-of-south-african-business-incubators/327566#:~:text=Here%20are%2058%20South%20African,Cleantech%20Innovation%20Programme%20for%20SMEs> [Accessed 21 May 2023].
15. Crampton, N., 2019. *Entrepreneur*. [Online] Available at: <https://www.entrepreneur.com/en-za/starting-a-business/the-definitive-list-of-south-african-business-incubators/327566> [Accessed 24 May 2023].
16. Crawford, L., 2020. *Conceptual and Theoretical Frameworks in Research*. [https://us.sagepub.com/sites/default/files/upm-assets/105274\\_book\\_item\\_105274.pdf](https://us.sagepub.com/sites/default/files/upm-assets/105274_book_item_105274.pdf): conceptual modeling.
17. Creswell, J., 1994. *National Center for Postsecondary Improvement*. [Online] Available at: [https://web.stanford.edu/group/ncpi/unspeficied/student\\_assess\\_toolkit/conceptualModels.html](https://web.stanford.edu/group/ncpi/unspeficied/student_assess_toolkit/conceptualModels.html)
18. EgoBio, 2023. *EgoBio*. [Online] Available at: <http://www.egolibio.co.za/contacts/> [Accessed 23 May 2023].
19. Enterprise, E. D. f. S., 2023. *EDSA*. [Online] Available at: <https://edse.org.za>
20. Galal, S., 2022. [Online] Available at: <https://www.statista.com/statistics/484933/internet-user-reach-south-africa/> [Accessed 30 January 2023].
21. Government, W. C., 2017. *Saving water in your Home*. [Online] Available at: <https://www.westerncape.gov.za/general-publication/saving-water-your-home>
22. Hub, T. I., 2023. *The Innovation Hub*. [Online] Available at: <https://www.theinnovationhub.com/business-incubators/ekasilabs-4> [Accessed 24 May 2023].
23. Industry, T. D. o. T. &, 2023. *The DTI*. [Online] Available at: [https://www.nwu.ac.za/sites/www.nwu.ac.za/files/files/i-technology-transfer/Documents/www.dti.gov.za\\_ISP\\_ISP\\_Guidelines\\_Ver2.pdf](https://www.nwu.ac.za/sites/www.nwu.ac.za/files/files/i-technology-transfer/Documents/www.dti.gov.za_ISP_ISP_Guidelines_Ver2.pdf) [Accessed 24 April 2023].
24. Injini, 2023. *Injini*. [Online] Available at: <https://www.injini.africa> [Accessed 23 May 2023].
25. It-Online., 2023. *It-Online*. [Online] Available at: <https://it-online.co.za/2023/01/30/which-way-will-the-economy-go-in-2023/#:~:text=Economic%20growth%20slowed%20last%20year,regular%20implementation%20of%20rolling%20blackouts> [Accessed 30 January 2023].
26. Jili, N., Masuku, M. & Selepe, B., 2017. SMMEs promoting Local Economic Development (LED) in Umlalazi Local Municipality, KwaZulu-Natal. *African Journal of Hospitality, Tourism and Leisure*, 6(1), pp. 1,2-6.
27. Klofsten, M. & Jones Evans, D., 2000. Comparing Academic Entrepreneurship in Europe - The Case of Sweden and Ireland. *Small Business Economics*, June, p. 2990301.
28. Langroodi, F. E., 2021. Schumpeter's Theory of Economic Development: A Study of the Creative Destruction and Entrepreneurship Effects on the Economic Growth. *Journal of Insurance and Financial Managment*, 4(3), p. 66.
29. Leda, 2023. *Limpopo Development Agency*. [Online] Available at: <https://www.lieda.co.za> [Accessed 25 May 2023].
30. Macro Trends., 2022. *MacroTrends*. [Online] Available at: <https://www.macrotrends.net/countries/ZAF/south-africa/unemployment-rate> [Accessed 30 January 2023].
31. Marais, H. & Masego, N., 2023. *Deloitte Insights*. [Online] Available at: <https://www2.deloitte.com/za/en/insights/economy/emea/africa-economic-outlook.html> [Accessed 21 May 2023].
32. Matlali, L., 2021. *Why entrepreneurship and innovation are key to addressing youth unemployment*, s.l.: s.n.
33. Morobe, D., 2023. *Bizcommunity*. [Online] Available at: <https://www.bizcommunity.com/Article/196/841/232426.html#:~:text=With%20small%20and%20medium%20enterprises,upliftment%20and%20development%20is%20unlimited>. [Accessed 28 May 2023].
34. Mubarak, H. M. & Busler, M., 2013. Business incubation as an economic development strategy: a literature review. *International Journal of Management*, 30(1), p. 362.
35. Naidoo, P., 2022. *Bloomberg*. [Online] Available at: <https://www.bloomberg.com/news/articles/2022-11-29/south-africa-jobless-rate-drops-to-third-highest-in-the-world#xj4y7vzkg> [Accessed 30 January 2023].
36. News24, 2022. *The essential role of SMEs in the economy*. [Online] Available at: <https://www.news24.com/fin24/partnercontent/the-essential-role-of-smes-in-the-economy-20220510>
37. Nkemjika, E., 2012. *Understanding Africa's China Policy: A Test of Dependency Theory and a Study of African Motivations in Increasing Engagement with China*. [Online] Available at: <https://digitalcommons.unl.edu/poliscitheses/21> [Accessed 25 April 2023].
38. Rekh, S., 2023. [Online] Available at: <https://www.economicdiscussion.net/macroeconomics/6-major-macro-economic-issues/20641>
39. Sarebi, 2023. *Sarebi*. [Online] Available at: <http://sarebi.co.za/business-incubation-services/incubation/> [Accessed 23 May 2023].
40. Schutte, F. & Chauke, T., 2021. *The role and effectiveness of business incubators in growing small businesses*. [Online] Available at: <https://repository.up.ac.za/handle/2263/81808>
41. Seda, 2023. *Seda*. [Online] Available at: <http://www.seda.org.za/AboutUs/Jobs/Pages/Home.aspx> [Accessed 25 My 2023].
42. Seda, 2014. *South Africa Business Incubator Establishment Handbook*. 1 ed. Pretoria : Department of Trade and Industry
43. TIA, 2023. *Technology Innovation Agency*. [Online] Available at: <https://www.tia.org.za> [Accessed 25 May 2023].

44. Transnet, 2023. *Transnet*. [Online]  
Available at: <https://www.transnet.net/BusinessWithUs/Pages/Enterprise-Development-HUB.aspx>  
[Accessed 24 May 2023].
45. Umrellas, B., 2023. *Black Umrellas*. [Online] Available at: <https://blackumbrellas.co.za/entrepreneurs/> [Accessed 24 May 2023].
46. Van Eck, L., York, M. & Martens, N., 2023. *Aspen Network of Development Entrepreneurs*. [Online]  
Available at: <https://www.aspeninstitute.org/programs/aspen-network-development-entrepreneurs/> [Accessed 24 May 2023].
47. Van Eck, L., York, M. & Martens, N., 2018. *A knowledge brief of South Africa's Incubator and Accelerator Landscape*, Johannesburg: ANDE.
48. Wickham, M., 2005. *Analysis & Policy Observer*. [Online] Available at: <https://apo.org.au/node/162581> [Accessed 25 April 2023].
49. Ziady, H., 2022. *South Africa's energy crisis deepens as blackouts hit 12 hours a day*, Johannesburg: CNN.