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THE PERCEIVED PSYCHOSOCIAL AND ECONOMIC IMPACT OF LOAD-SHEDDING ON EMPLOYEES IN SELECTED SMALL MICRO MEDIUM ENTERPRISES

by

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Presented in partial fulfilment of the requirements for the degree of Master Administration in Industrial Psychology at the University of the Western Cape

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"So, surely with hardship comes ease"

Quran 94:5

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DECLARATION

I declare that "*The perceived psycho-social and economic impact of load-shedding on employees in selected SMMEs"* is my own work, that it has not been submitted before for any degree or examination in any other university, and that all the sources I have used or quoted have, to the best of my knowledge, been indicated and acknowledged as completed references.

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Shaa'ista Banderker

July 2022

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ABSTRACT

Access to electricity is essential in human lives. It is used globally, though some individuals have restricted availability. People and most organisations need electricity daily for advancement in their lives. The power irregularity crisis affected several businesses, including large franchises in South Africa, such as Game, ABSA Bank, and Foschini. This was the first stage of failure for several businesses. Numerous businesses had to close or reduce stock and staff to stay afloat. Businesses were warned about the frequency of load-shedding; however, it still affected several substantially, as they could not afford alternatives. These businesses were affected owing to the downtrend of South Africa's economy. Load-shedding caused an adverse environment for several businesses, leading to resentful employers owing to their low turnover. Large franchises are struggling; therefore, micro-, small, and medium-sized enterprises struggle even more. These enterprises, therefore, need to discern what their options are and know that they are not alone in this load-shedding epidemic. The primary study objective was, therefore, to understand the perceived psychological, social, and economic impact of load-shedding on employees in selected small, medium, and micro enterprises in the Western Cape, South Africa. The research aimed at discovering the observations of the selected businesses and how loadshedding affected them psychologically, socially, and economically. A qualitative approach was, therefore, used for this study. Nine participants were interviewed. Participants from clothing boutiques were selected using a non-probability sampling method called convenience sampling. The data were then collected through semi-structured interviews and transcribed to be analysed through thematic analysis.

Three themes (psychological, social, and economic) with seven subthemes (well-being, COVID-19 pandemic, customer interaction, social support, loss of clientele owing to load-shedding, loss of production owing to load-shedding and loss of hours owing to load-shedding) emerged from the transcribed data. The study findings present that the participants were affected by all three factors. The nature of their work caused similar

experiences and observations. Load-shedding caused them to re-evaluate how they conduct their businesses, such as having fewer customers to focus on, obtaining products, or pursuing investing in alternatives, such as generators, uninterruptible power supplies or invertors. The participants remarked that the pandemic severely affected their mental health. The majority agreed they were highly stressed and anxious because of the load-shedding frequency, affecting their businesses. Micro, small, and medium-sized enterprises and other businesses will find the study results useful when investigating the impact of load-shedding. Future research should include a quantitative aspect to quantify the three factors of the enterprises. This could offer and provide more information on load-shedding's impact on micro-, small, and medium-sized enterprises and solutions for others on how to conquer or overcome this 'epidemic'.

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KEYWORDS

Psychological impact

Social impact

Economic impact

Load-shedding

Clothing boutiques

Qualitative

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CHAPTER 1: INTRODUCTION

1.1 Introduction and background

Before electricity, humanity relied on fire for light, heat, and cooking. Today these basic needs are taken for granted. Instant power appears at the push of a button or the flick of a switch. Electricity has become a huge part of everyday lives. Electricity is exploited at home, work, school, and in malls, while forming part of individuals' daily routines. "In 2017, more than eight in 10 South African households (84% or 13.7 million) were connected to the electricity grid" (Pretorius, 2019).

Humans rely on electricity from when they wake up to the time they go to sleep. Electricity can be observed as a basic human need, whereas others may contend that their ancestors lacked this 'necessity' but neither did they have proper safety, proper shelter, or sanitation. Basic needs to evolve with evolving humankind. Electricity can be considered a psychological and safety need. Maslow's hierarchy of needs displays electricity as a basic necessity most humans want and require (Maslow, 1943); therefore, access to electricity is essential in human lives. Although some lack access, most organisations in the 21st century need electricity daily for advancement.

According to PWC (2021), load-shedding caused the loss of more than a million jobs, with 275 000 in 2021. This could be because "In South Africa, Eskom is the country's main electricity supplier. Since 2008, Eskom actively implemented load-shedding because of insufficient electricity supply to meet the demands of all its customers" (Steenkamp, 2016).

"Recently, Eskom has admitted that such interruptions of the power supply are likely to continue over the next five years. This is because of the increased downtime of the rapidly ageing fleet of coal plants, along with reactive strategic planning in setting up the new power plants" (Winkler, 2021). Based on this statement, some businesses had to shut down or reduce stock and staff to stay afloat. Even though businesses receive a load-shedding schedule, it still affects them. Load-shedding harmed several businesses through the collapse of South Africa's economy. "The economy shrank by 3.1% because of the blackouts

experienced in March this year (2021), according to the South African Reserve Bank, and Western Cape Finance and Economic Opportunities MEC David Maynier indicated in October that load-shedding would cost the Western Cape economy R150 million per day" (Steyn, 2019).

These statistics show several businesses experienced an immense loss in revenue because of load-shedding. Recently, the "World Bank cut South Africa's economic growth forecast for 2020 to below 1%, a direct result of electricity supply concerns, which have had a fundamental influence on the economy in a number of areas" (Rosen, 2020).

Retail is one of the most affected areas by load-shedding. Operating hours and sales, especially during peak trade, are lost. These hours and sales are profoundly relied on for annual turnover. Retail observed a decline during load-shedding. The impact of the load-shedding crisis on the manufacturing and production sectors was also harmful. Many suffered owing to an insufficient production cycle, leading to unfavourable production volumes required to cover overheads, rapidly causing an unprofitable scenario (Rosen, 2020).

According to Bensch (2019), South Africa's economy lost an estimated R12 billion during three days of Stage 4 load-shedding, with smaller businesses affected the most. Bensch (2019) suggests quick-fix solutions to mitigate the effects of load-shedding:

- Plan around the schedule: The EskomSePush app was launched to aid South Africans to stay up to date with the load-shedding schedule
- Adopt a flexible work schedule and allow employees to work remotely: allowing individuals to work from home can allow for skipping load-shedding, therefore, productivity can continue
- Adopt a cloud-based business solution: online software will concede employees to work anywhere with an Internet connection
- Regular backups: having data backed up to the latest version will prevent the loss of hours and essential information
- Obtain a power bank: power banks are one of the most popular quick-fix solutions lasting up to an hour while charging electronics

Several businesses are pursuing more short-term fixes rather than long term because they are more cost-efficient; however, they are ineffective in the long-term (Caboz, 2019).

1.1.1 How a business can approach load-shedding

"It is no secret that the intensified load-shedding had a devastating economic influence on many companies. Without electricity, many businesses cannot function, and in those instances, employees are unable to work" (Patel, 2020). With the load-shedding struggles, several employees' psychological health and financial income have declined. "Prolonged or frequent loss of basic services, including load-shedding, has been shown to precipitate the onset of several mental health conditions such as depression, anxiety, and poster traumatic stress disorder" (Laher, 2019). According to Christelle Colman of Old Mutual Insure, "South Africans should take the necessary steps to reduce their risk of financial loss resulting from blackouts" (Smith, 2021).

Crucial concepts to consider on how businesses can safeguard their assets while continue operating during load-shedding:

- Various companies use backup power supplies to minimise operations and productivity loss (Reporter, 2020)
- Protect appliances when electricity returns. A power surge could damage electrical items; installing surge plugs can offer protection against these surges (Reporter, 2020)
- Verify short-term business insurance policies to be familiarised with the terms if alarms are incapacitated during load-shedding (Reporter, 2020)

Load-shedding overexposes several business owners. The aforementioned measures could immensely reduce financial loss resulting from the blackouts (Reporter, 2020).

1.1.2 COVID-19 and load-shedding

According to Volmink (2020), load-shedding harms employment, leading to increased fears of job security, losses in revenue, and a shrinking probability of a recovering economy. Load-shedding with COVID-19 restrictions has left the small, medium, and micro enterprises

(SMME) sector devastated. The COVID-19 restrictions have highly affected businesses in tandem with load-shedding (Volmink, 2020)

> "On 31 December 2019, the World Health Organization (WHO) reported a cluster of pneumonia cases in Wuhan City, China. 'Severe Acute Respiratory Syndrome Coronavirus 2' (SARS-CoV-2) was confirmed as the causative agent of what we now know as 'Coronavirus Disease 2019' (COVID-19). Since then, the virus has spread to more than 100 countries, including South Africa" (South African Department of Health, 2021).

"The COVID-19 pandemic and resulting economic slowdown load-shedding was largely suspended due to reduced demand for electricity" (South African Government News, 2021); however, this concluded in March 2021 with several power stations experiencing breakdowns (South African Government News, 2021).

"In May 2021, stage 2 load-shedding was re-implemented following multiple power station breakdowns at several power stations. By 9 June 2021, Level 4 load-shedding was announced" (Eyewitness News, 2021). Eskom's ageing electricity plants have deteriorated, causing frequent nationwide breakdowns. Since 2008, Eskom cannot supply electricity to meet the demands of the people of South Africa. The rolling power cuts were implemented systematically (Inglesi-Lotz & Mabugu, 2022).

Load-shedding caused an adverse environment for several businesses, leading to resentful employers owing to their low turnover. A few studies documented the psychosocial and economic impact of load-shedding. Research reveals that load-shedding has an adverse impact on South African SMMEs' profitability, liquidity, solvency, and efficiency (Mbomvu, 2021). Over the years, weak South African SMME sustainability has been pinned on internal factors (SMME management control) and external factors (SMME management has little or no control) (Mbomvu, 2021).

Load-shedding causes several internal and external factors. Internal factors include a decrease in revenue and income, loss of jobs, and not using devices. External factors include psychological factors, such as depression, stress, and anxiety. Load-shedding contributed immensely to these factors over the years for several SMMEs (Pollitt, 2022). Income and cash

flow are lost when businesses cannot operate, affecting their profitability, liquidity, and efficiency (Semenya, 2019).

SMMEs are the economic lifeblood of the country. The sector employs over eight million South Africans across five million formal and informal SMMEs, contributing to 40% turnover of all enterprises in the country (Seinker, 2019a). Several SMMEs cannot afford alternative power sources during these frequent blackouts. Three to four hours of load-shedding presents half a day of work for several of these businesses. Considerable time is wasted while harming all three factors, indicating economic, social, and psychological. Without power, SMME business owners are rendered helpless, losing thousands of rands with each hour of load-shedding (Reporter, 2019).

According to business chambers (2020), SMMEs will battle to survive as blackouts and disruptions are expected to continue into the subsequent year, 2021. For example, an SMME business owner, Vukile Ndimande, a manufacturing and clothing business owner remarked he lacked alternative power supplies and had ceased operations during these blackouts.

> "I have tons of orders that I need to do, and this stop-and-go is delaying the process … the power outages had hit his business hard as it had generated no income for months. I'm doing what I can to keep the business going, but the load-shedding is adding pressure" (Business Chambers, 2020).

These blackouts extensively affect SMMEs, especially small clothing businesses. Research on load-shedding and how it affects SMMEs mainly focuses on employer-specific factors, such as psychological, economic, and social (Schoeman & Saunder, 2019). According to Dewa, Van der Merwe, and Matope (2020), during load-shedding the manufacturing operations are shut down, causing an increase in downtime, a decrease in productivity, and equipment damage. Several manufacturers lack the working capital to purchase or hire an alternative power source. For such small businesses, investing in alternative power sources is also an uphill task owing to limited income. According to Veness (2020), it has been inconceivable for businesses to endure the blackouts just as the economy strengthened.

> "I feel absolutely desperate for our struggling enterprises, many of whom won't make it if load shedding persists," she said, adding this would obviously cause job cuts. "We're trying

to win a huge battle with our hands tied behind our backs. Far more established economies are struggling to reboot post-Covid-19, how on earth are we expected to do that with a disrupted power supply?" (Veness, 2020).

The COVID-19 restrictions and the added stress of load-shedding forced several SMMEs to either shut down or reduce stock, employees, and business hours (Mbomvu, 2021).

Business owners revealed being directly affected by load-shedding, experiencing elevated stress levels, and mental health concerns. "Employment is a fundamental component of life quality, the primary source of income for most people, commonly a major influence on someone's social network, and a defining feature of social status" (McDaid, 2021). A substantial link exists between mental health, psychological, and social factors and employment. Load-shedding causes several SMME business owners to either adapt or shutdown, therefore, directly affecting their mental health with other factors (McDaid, 2021).

As aforementioned, load-shedding significantly influenced households and businesses. Despite its harmful effects, a shortage of articles exists, specifically investigating the psychological, social, and economic repercussions of load-shedding on SMMEs. This study is intended to cover this divergence through research among employees of SMMEs in the Western Cape; therefore, the primary research question guiding the study is: What is the perceived psychosocial and economic impact of load-shedding on employees in selected SMMEs?

1.2 Research questions

The primary research question is further dissected into the sub-research questions discussed below.

1.2.1 Research sub-questions

1. What is the perceived psychological impact of load-shedding on employees in selected SMMEs?
2. What is the perceived social impact of load-shedding on employees in SMMEs?

3. What is the perceived economic impact of load-shedding on employees in selected SMMEs?
4. How did the selected SMMEs cope with the load-shedding challenges?

1.3 Research aims

This study aimed to understand the economic and psychosocial impact that load-shedding has on SMMEs, such as small clothing boutiques in the Western Cape.

1.4 Research objectives

The research questions above are translated into these objectives below:

1. To determine the perceived **psychological** impact of load-shedding on employees in selected SMMEs
2. To determine the perceived **social** impact of load-shedding on employees in selected SMME organisations
3. To determine the perceived **economic** impact of load-shedding on employees in selected SMME organisations
4. To explore **coping strategies** and techniques employed by these organisations to reduce the impact of load-shedding

1.5 Rationale for the study

South Africa's fashion designers contributed at least R1 billion to gross domestic product (GDP) last year and could play a significant role in helping to rejuvenate manufacturing and create jobs and skills (GQ South Africa, 2020).

> "After an 8-percentage point decrease in Q4 2020, the business confidence level among small clothing boutique owners is on the increase again, albeit minor. This is despite various challenges and the difficult economic landscape that small businesses are facing as a result of the COVID-19 pandemic, load-shedding—as well as the various levels of a nationwide lockdown that lasted most of 2020" (Paper, 2020).

Load-shedding had a detrimental impact on South African fashion.

> "The cost of local design-intensive clothing sold in private fashion boutiques will increase. With the majority of consumers spending less on clothing or seeking low-cost, high-design apparel, national sales of clothing made by South African designers may decline rapidly" (Palmi, 2008).

South African clothing and fashion sectors are labour intensive, employing mostly women—often the sole breadwinners of households. The consequences of Eskom's and the government's incompetent management of South Africa's apparel industry and all its affiliated small business operations will be both shredding and shedding (Palmi, 2008).

According to Palmi (2008) a manufacturer, also the owner of several fashion boutiques, indicated that the production schedule had to be altered according to Eskom's load-shedding schedules. Staff had to be trained on how to do beading and other work by hand during the power cuts to maintain productivity; therefore, by conducting this study—SMMEs, such as clothing boutiques, and future researchers can understand the psychosocial and economic consequences of load-shedding on this sector. This study adds to the body of knowledge on how SMMEs can overcome such challenges by identifying what businesses can do to remedy the crisis, while pursuing alternatives. This study also aimed to clarify the urgency of the need for electricity and how many businesses are affected.

The South African Government directed the Eskom load-shedding measures, which pronounced a national emergency (Palmi, 2008). According to the ReDress Consultancy-SA (2021), clothing manufacturers, fashion designers, and fashion boutiques are highly affected by power cuts impeding an industry already under pressure from cheaper imports, low-profit margins, and a decrease in retail turnover. Apparel representative bodies have been quiet about the effects of load-shedding on the South African apparel sector. Despite the stressors experienced by the fashion industry to become economically viable, it is still a vital economic contributor (Palmi, 2008). The textile industry in KwaZulu-Natal contributes 15% of the province's manufacturing sector, while clothing contributes 27%; in the Western Cape, the apparel sector is a major contributor to the economy of the province (Palmi, 2008).

1.6 Key concepts of the study

Load-shedding: in nonprofessional terms can be defined as a controlled process, responding to unplanned events to protect the electricity power system from a total blackout (Eskom, 2021).

Blackouts: occurs when too much electricity demand and too little supply are present, bringing the power system into an imbalance and tripping it (Eskom, 2021).

Economic impact: according to the Cambridge Dictionary (2021), economic impact is when something, especially something new, affects a situation or person, such as a decreased income with a significant economic impact on the SMME community.

Social impact: can be defined as the impact on people and communities because of an action or inaction, an activity, project, programme, or policy (Parrett, 2021).

Psychological impact: can be defined as the impact caused by environmental and biological factors on an individual's social and psychological behaviour (Oliveira, 2020).

SMMEs: Can be defined as businesses, maintaining revenues, assets or several employees below a certain threshold (Liberto, 2020).

1.7 Delineation and delimitations

This study is restricted to interviewing a sample of managers/owners and supervisors/designers from selected clothing boutiques in the Western Cape, South Africa. Three permanent employees were selected from various levels of three businesses. These employees represented an owner, manager, and supervisor. This sample was chosen to provide an owner and employee perspective. This summarises how load-shedding affected their lives. The focus of the study is to observe the economic and psychosocial impact of load-shedding on clothing boutiques in Cape Town. The main reason for conducting this research is that load-shedding is continuous, and it has become increasingly difficult for SMMEs to find solutions and actions to be taken. Observing other SMME actions can provide insights into those requiring help while recognising they are not alone in this crisis.

1.8 Structure of the study

This research comprises five chapters, embracing the following aspects:

Chapter 1 introduces the present study, the research problem, and the objectives. The definition of terms and concepts are provided while explaining the study rationale. Finally, the structure of the report is presented.

Chapter 2 presents empirical evidence and the theoretical framework to support the research. The literature discusses and examines these topics: understanding power irregularity; the impact of load-shedding in South Africa; load-shedding and COVID-19; the economic impact of load-shedding and the psychosocial impact of load-shedding on Cape Town businesses.

Chapter 3 describes how the research was conducted by presenting the methodology. This chapter comprises the design, sampling strategy, data collection procedures, and methods used for qualitative data analysis. The chapter concludes by emphasising the ethical considerations adhered to during data collection.

Chapter 4 provides the evidence and findings from the thematic analysis. Chapter 4 further establishes and examines the understanding of the research objectives.

Chapter 5 details the study cause. Study limitations are also presented. Suggestions are offered for additional research. Finally, the last section concludes by producing the research findings.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter reviews and provides literature discussing load-shedding and how it affects businesses and South Africa. The theoretical framework guided and supported this study, using Maslow's hierarchy of needs (1943). This study, therefore, focused on understanding power irregularities experienced by SMMEs. Load-shedding and COVID-19 are discussed with their economic impact on SMMEs. The psychosocial impact of load-shedding is appraised in literature, emphasising potential power alternatives during load-shedding. The conclusion is provided with a chapter summary.

2.2 Theoretical framework

2.1.1 Maslow's Hierarchy of Needs

Psychological and basic needs are crucial for humans. Maslow suggests a hierarchy of needs theory, confirming this notion. Electricity is similarly essential in the 21st century. Maslow's hierarchy of needs is a motivational theory in psychology, comprising five levels of human needs (McLeod, 2018). Needs lower down in the hierarchy must be fulfilled before an individual can focus on the needs higher up. The five levels are psychological, safety, social belonging, esteem, and self-actualisation (*Figure 2.1*) (McLeod, 2018).

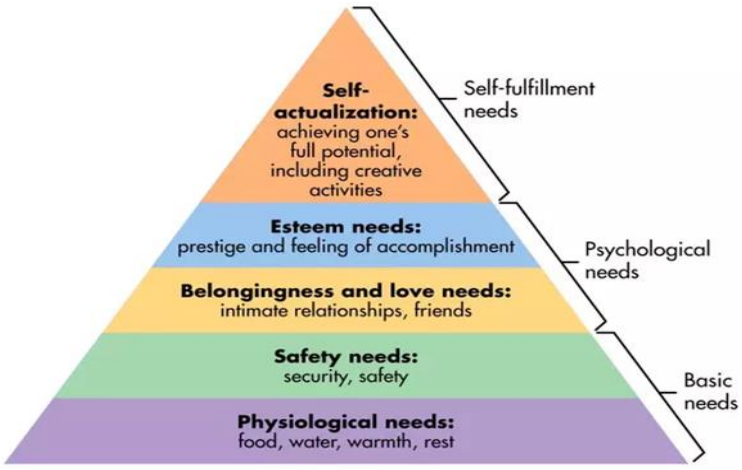

Figure 2.1. **Maslow's hierarchy of needs. Adapted from** McLeod, S. (2018). *Maslow's Hierarchy of Needs*. Simply Psychology. https://www.simplypsychology.org/maslow.html#:%7E:text=From%20the%20bottom%20of%20the,attend%20to%20needs%20higher%20up.

2.1.2 Goal Setting Theory of motivation

Edwin Locke suggests the goal-setting theory of motivation (*Figure **2.2***). This theory suggests that goal setting is linked directly to task performance. Specific, challenging goals with feedback contribute to higher performance (Juneja, 2015).

Figure 2.2. **Edwin Locke's goal-setting theory. Adapted from** Lucidity (2022). *Locke's Goal Setting Theory: How to set your Business Goals.* https://getlucidity.com/strategy-resources/guide-to-locke-s-goal-setting-theory/

2.1.3 ERG Theory of Motivation

The existence, relatedness, and growth (ERG) theory by Clayton Alderfer render Maslow's hierarchy more unpretentious (*Figure **2.3***). The ERG theory emphasises three levels of need, indicating the existence, relatedness, and growth (Juneja, 2015).

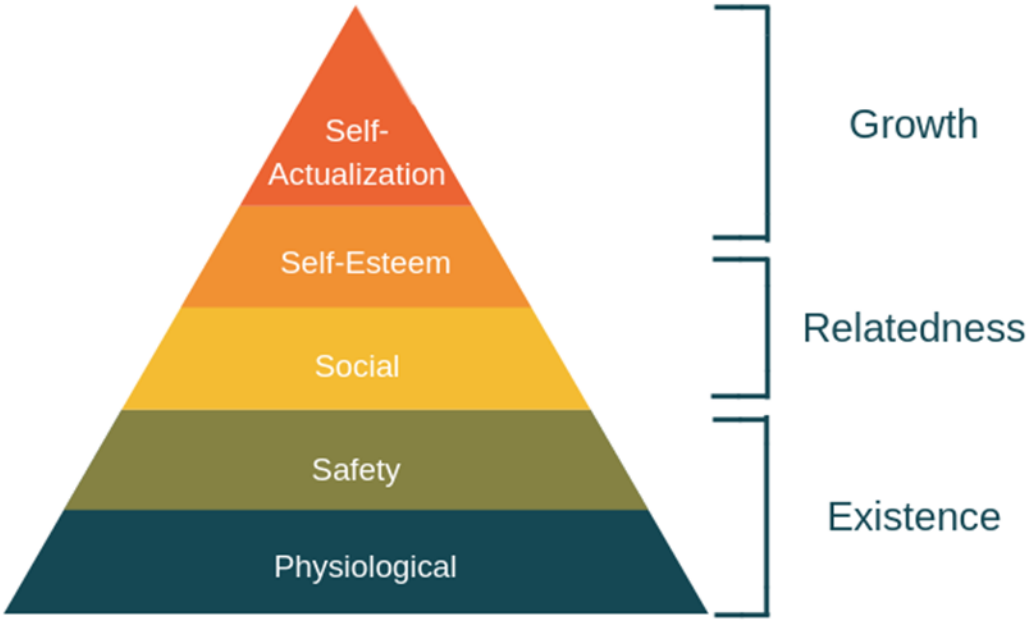

Figure 2.3. **Clayton Alderfer's ERG Theory of Motivation. Adapted from** Expert Program Management. (2019). *ERG Theory of Motivation - Team Management Training* from EPM. https://expertprogrammanagement.com/2018/10/erg-theory-of-motivation/

Several similarities exist between Maslow, Alderfer, and Locke. First, they all recognise the importance of feedback. Maslow focuses on self-esteem; Locke on commitment; Alderfer on growth.

Although Alderfer's and Maslow's theories are more alike, Alderfer based his theory on Maslow's, pursuing to simplify it into three categories. These theories emphasise the same needs, the structure is the same, while approaching upward movement of motivation according to the hierarchy (NotesforMBA, 2018); however, this study chose Maslow's hierarchy of needs.

When observing the importance of electricity over the centuries, several businesses cannot operate without it, therefore, many SMMEs have suffered. Reliable electricity in the 21st century is crucial as an essential resource for daily activities to run a business. “A significant 50% of sub-Saharan African firms recognised electricity as a major constraint to their business operations” (Botha, 2019). In developing countries, such as South Africa, access to electricity was one of the leading constraints for several business operations. A unique relationship between electricity and corporations exists as energy supplies have a considerable impact on economic activities. This results from electricity being consumed for various purposes, such as storage, operational processes, production, and powering of equipment and machinery. Electricity is significant in most production processes, therefore, essential for industry types such as services.

2.3 Understanding power irregularity (load-shedding)

Another way to phrase power irregularities is load-shedding. It is a way to distribute the demand for electrical power across multiple power sources. Load-shedding in nonprofessional terms can be described to relieve stress over an energy source when the need for electricity is too high for the primary source to keep up with or supply to users. Load-shedding or load reduction is a controlled option to respond to unplanned events to protect the electricity power system from a total blackout (Eskom, 2019).

Load-shedding is implemented when insufficient electricity is available to meet the demand of all customers. Electricity (public) utilities will, therefore, interrupt the energy supply in certain areas. It is the last resort to balance electricity supply and demand. Most companies experience this through Eskom’s scheduled load-shedding. They attempt to enable their customers to be better prepared for load-shedding, through rotational load-shedding. Table 2.1 indicates households with electricity in South Africa, comparing 2002 and 2017. Table 2.1 suggests the increase in electricity usage during this period.

Table 2.1

South African households with access to mains electricity

Province	2002	2017
Eastern Cape	55.3%	85.4%
KwaZulu-Natal	68.6%	82.9%
Limpopo	72.6%	90.8%
Mpumalanga	76%	88.8%
Northern Cape	81.6%	92%
North West	82%	80.9%
Free State	85.1%	90.5%
Gauteng	87.2%	80%
Western Cape	88.5%	86.6%

2.3.1 How load-shedding came about and what happened

South Africa has had a high demand for electricity in the last decade, owing to robust economic growth (Trace, 2020). This continued development exhausted Eskom's capacity, having to rely on considerable reserves, causing power outages. Eskom remarked that on Friday, 22 April 2022, they would suspend load-shedding, even though the system remained severely constrained and volatile – "During next week we anticipate continuing relying on the use of emergency reserves to meet demand" (Acharya, 2022). The reserve margin has continued a downward spiral for the last few years. Despite new capacity online, including reinstalling mothballed power stations and building open-cycle gas turbines, demand remains higher than capacity (Eskom, 2019). Load-shedding will remain necessary to protect the electrical power system until Eskom obtains additional capacity through the new build programme, unless they can substantially reduce national demand (Swilling, 2021).

2.3.2 How load-shedding works

Eskom established schedules in advance, planning to switch off parts of the grid or network in a sequence during load-shedding. The following schedules were simplified as follows (Eskom, 2019):

- Easier to understand and remember to improve our ability to adhere to the planned schedules
- Improved the stability and consistency of the schedules
- Improved predictability of being switched off
- Improved communication of schedules and power system status
- Fairer impact across the entire customer base
- When load-shedding is required, a fixed plan for load-shedding schedules will go into operation
- Published in advance so customers can discover the days and times when they will be affected during load-shedding
- Period of load-shedding
- Load-shedding will only be implemented when required by the system
- Where possible, Eskom will predict the “tight” periods in advance and a fixed period for scheduled load-shedding (e.g., two weeks) will be identified beforehand and communicated to customers in advance through the media
- All customers could be affected

The media will be the main channel for keeping customers informed should load-shedding occur outside the schedules. In 2020, South Africa was affected by 860 hours of load-shedding. It was the most intense year for load-shedding. As observed in *Figure **2.4***, 2020 was disrupted by COVID-19 restrictions and frequent load-shedding (Business Insider SA, 2021). *Figure **2.4***, therefore, depicts the load-shedding hours.

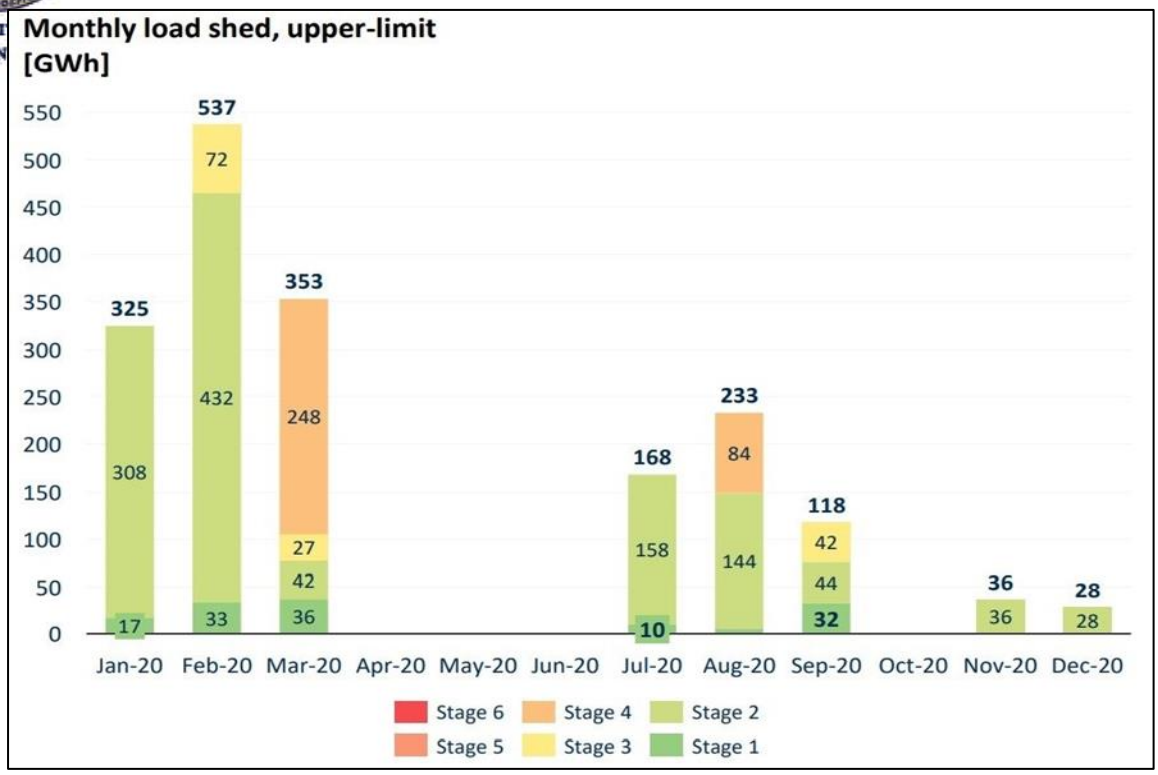

Figure 2.4. **Load-shedding hours during 2020 for South Africa. Adapted from** Business Insider SA (2021). *860 hours of load shedding: These graphs show the sorry state of SA electricity*. Businessinsider. https://www.businessinsider.co.za/new-csir-report-load-shedding-and-eskom-2021-3

2.4 The impact of load-shedding in South Africa

Load-shedding has been a crisis in South Africa for the past 12 years. A sequence of events has been experienced since the first load-shedding in 2007 (Niselow, 2019). South Africa's government-regulated electricity distributor, Eskom, was established in 1992, assuming a massive electrification programme after 1994 (Niselow, 2019). Electrification programmes are plans that optimise electricity services in a territory within a period, according to the predetermined strategy goals and objectives (Energypedia, 2020).

According to Africa Check (2016), 50.9% of households had access to electricity at the dawn of democracy. The community survey in 2016, conducted by Statistics South Africa, revealed that 92.7% of the population is connected to electricity. In 2019, the lack of crucial

maintenance, disastrous construction of power stations, and allegations of state capture have all captivated power resources (Niselow, 2019). Below is an itemisation of South Africa's load-shedding history, along with the multiple promises and remedies offered, ensuring citizens it would be resolved but this did not realise (Niselow, 2019).

- November 2007- January 2008

The load-shedding crisis affected South Africa for the first time. It disrupted businesses and households while terminating mining operations. It became publicly evident in 2007 owing to a period of widespread load-shedding (Goldberg, 2015). It was owing to "years of poor planning and under-investment, which was seen as a symptom of failed management at state-owned entities" (Goldberg, 2015).

In December 2007, former President Thabo Mbeki made his first public apology, acknowledging that they had erred. Eskom was veracious about the increased demand for electricity and the government's failure to heed the call for a larger investment into the power utility's generation capacity (Fin24, 2019).

- March 2014

The power plants came under severe constraints for the 2013-2014 summer maintenance programme. Eskom re-implemented load-shedding in March 2014. This is the second time the country has experienced load-shedding since 2008. Towards the end of 2014, load-shedding resumed as the infrastructure was under-maintained and ageing (Goldberg, 2015). According to the Economist (2015), load-shedding would continue, entering the new year of 2016 and beyond. Brian Dames, the ex-CEO of Eskom, apologised for the load-shedding, remarking that it was a painful decision, conducted as a last resort, preserving the reliability of the grid (Niselow, 2019).

- January 2015- September 2015

In 2015, Eskom implemented 99 days of load-shedding. This situation caused a decrease in manufacturing and mining output, subverting economic growth (Fin24, 2019). On 15 January

2015, Eskom's CEO, admits that Eskom's policy to "Keep the Lights on" meant that power station maintenance was neglected and renounced for years (Fin24, 2018).

- 2016

In 2016, Eskom pursued a nuclear solution to the energy crisis. "Recent global developments show that the world is increasingly moving towards nuclear power and that South Africa is on the correct path with its nuclear aspirations" (African News Agency, 2016).

In May 2016, the former president, assured Eskom of more staff at the power utility headquarters in Sunninghill. The former president encouraged them that load-shedding was obsolete (Niselow, 2019).

- June 2018

In 2018, the National Energy Regulator of South Africa (NERSA) granted Eskom a 5.2% tariff increase for 2018 to 2019 instead of the 19.9% that Eskom applied for (Joffe, 2018). In June 2018, Eskom implemented Stage 1 load-shedding during an unlawful strike over wages. Claims were made that members of the National Union of the Mineworkers (NUM) and the National Union of Metalworkers (NUMSA) sabotaged power stations and coal supplies (Niselow, 2019). The unions denied this allegation.

- February 2019

In February 2019, another period of load-shedding commenced when Eskom announced implementing Stage 4 load-shedding (Eyewitness News, 2019). Eskom implemented Stage 2 of load-shedding again, becoming drastically worse, reaching Stage 4 because of a high number of plant breakdowns.

- March 2019

In March 2019, after days of warning of a substantial risk of planned outages, Eskom implemented seven consecutive days of load-shedding between Stage 2 and Stage 4, including night-time (during non-working hours) (Writer, 2021a). The Minister of Public

Enterprises, publicly apologised to the citizens and appealed for patience as a technical review team undertook an audit of the affected power stations. The Minister of Public Enterprises then pledged to provide further information about the high number of plant failures within 10 to 14 days (Writer, 2021a).

The Minister of Public Enterprises was then dismissed as minister after a Cabinet reshuffle; citizens lost even more hope after this. In 2019, well outside the initial predictions, the country once again reached a dire situation with a nationwide electrical supply (Writer, 2021a). Many residents are now in a position where load-shedding affected their livelihood and homes, especially with increased electricity prices; several citizens struggle to afford electricity for their homes and businesses. The impact of load-shedding is more than a minor inconvenience. The blackouts have cost the country millions, with no real indication of a solution. Several businesses had to be shut down owing to load-shedding, disrupting several lives continuously. "Load-shedding is quickly killing businesses in Cape Town" (Gontsana & Ntongana, 2019).

> "We are forced to close our shop because we need electricity to operate. We are pleading with government to come with a quick solution to stop load-shedding.
>
> It is hampering my business. These are tough times for us as small business owners" (Seleka, 2020).
>
> "Load-shedding is silently killing South African businesses. One by one, small and medium businesses are disappearing from the streets and shopping centres as the fragile power grid and frequent rolling blackouts over challenge business owners, entrepreneurs and employees. Retailers, hospitality businesses and manufacturers are hit the hardest" (van Niekerk, 2020).

South Africa lost billions owing to load-shedding. The blackouts caused a multitude of challenges. In February 2019 and March 2019, the total financial loss was determined using Yelland's formula:

- Thursday 14 March: Stage 2 implemented = R2 billion
- Friday 15 March: Stage 2 implemented = R2 billion

- Saturday 16 March: Stage 4 implemented = R4 billion
- Sunday 17 March: Stage 4 implemented = R4 billion
- Total for March 2019: **R16 Billion**
- Total cost of load-shedding in 2019, as of Monday 18 March: **R30 billion**
- Potential cost of load-shedding in 2019, by Wednesday 20 March: **R38 billion** (Head, 2019)

Yelland defines the formula as the net monetary cost per present-day kWh unit of electricity delivered. When adjusted for inflation annually over the lifetime of the plant, it will recover its full costs, including the initial investment, cost of capital (including dividends and interest), fuel and all other fixed and variable operating and maintenance costs (Fin24, 2016).

2.5 Load-shedding and COVID-19

According to the South African Chamber of Commerce and Industry (SACCI), the load-shedding crisis will significantly impact South Africa's economic recovery from COVID-19 restrictions (SABC News, 2021). Several businesses in the Western Cape were profoundly affected by the COVID-19 pandemic. The load-shedding crisis exacerbated the situation (Maynier, 2021). It is estimated that in 2020, load-shedding cost South Africa's economy R500 million per stage, per day (Maynier, 2021). The additional power cuts led to tremendous job losses. SACCI reported that over 20 000 SMMEs have shut down owing to the pandemic and load-shedding (MKhabela, 2022). Several businesses were severely affected; SMMEs experienced more repercussions as they are still attempting to recover from the COVID-19 restrictions.

Eskom also indicated that it would take considerable time before it can run at full capacity again, while dealing with COVID-19 and attempting to overcome challenges. This could be dire for SMMEs (SABC News, 2021). Over 90% of SMMEs are dealing with a cash flow disaster. Similarly, this caused a decrease in trading hours, resulting in a loss of business and jobs (Charles, 2020). *Figure **2.5*** summarises how load-shedding affected South African businesses (Writer, 2019b).

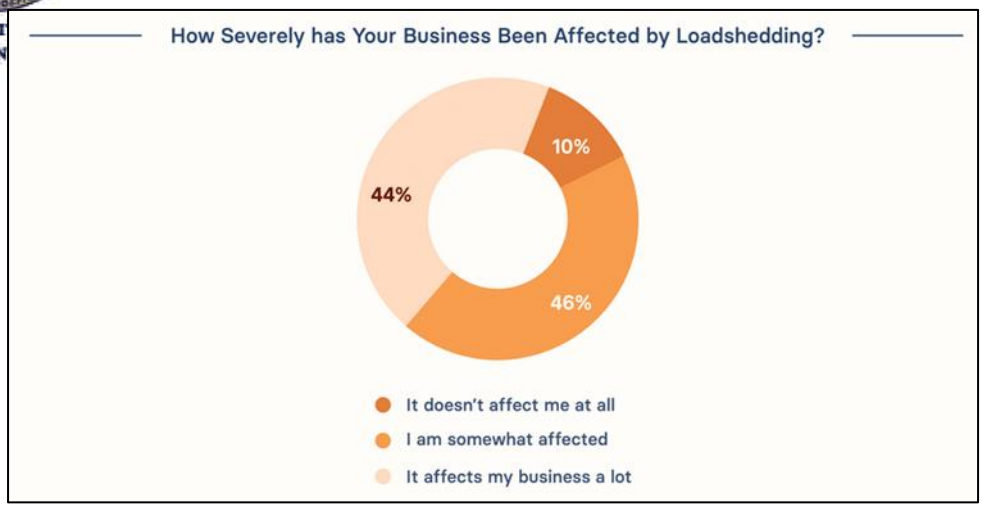

Figure 2.5. **How severely did load-shedding affect your business? Adapted from** Writer, S. (2019). *Here's how much money small businesses in South Africa say they lost because of load shedding*. Business Tech. https://businesstech.co.za/news/energy/314566/heres-how-much-money-small-business-in-south-africa-say-they-lost-because-of-load-shedding/

According to Niveshen Govender of SAPVIA (South African Photovoltaic Industry Association), the combination of COVID-19 restrictions and deficient national grid stability affected small businesses' chances of survival.

2.6 Defining economic impact

The term 'economic impact' has become the most powerful and persuasive device for any researchers attempting to capture and collect evidence on the financial positives and negatives of hosting a major event or business (Event Impact, 2021). The direct economic impact is a measure of the additional expenditure within a defined geographical location, which can be directly attributed to staging and events (Event Impact, 2021). For example, if an individual started a clothing business generating clothing through a factory, labour must be hired, materials purchased from suppliers (fabric outlets), while requiring contract services to hire out machinery and rent out factory facilities.

One of the largest economic impacts is COVID-19 restrictions and lockdowns. COVID-19 has not only been a global pandemic and public health crisis, but it has also severely affected the global economy and financial markets (Pak, 2021). Lockdowns caused significant reductions in income, a rise in unemployment, and disruptions in the transportation, service, and manufacturing industries. The COVID-19 pandemic directly affected the income of several people owing to premature deaths, workplace absenteeism, and reduction in productivity. It has created a negative domino impact where the distribution chain was disrupted, resulting in several closures of businesses and factories (Pak, 2021).

Another example would be the load-shedding crisis in South Africa. With load-shedding costing South Africa's economy R500 million per stage, per day, and the Western Cape's economy R75 million per stage, per day; over two weeks, load-shedding has cost the South African economy R25 billion, and the Western Cape R3.85 billion. The blow to the economy resulted in several businesses in South Africa closing down and pursuing work elsewhere (Writer, 2021b).

In 2020, Moody revised that South Africa's GDP growth was forecasted to be 0.4%, cited to be a stalling economy. The crippling effects of load-shedding and the expected economic impact of COVID-19 have been a double strike in the country. StatsSA also reported that in 2020 the South African economy contracted 1.4% in the fourth quarter of 2019, officially placing the country in a recession.

Because of the dismal Q4 performance, South Africa's economy increased only 0.2% in 2019, worst since the struggle of the global financial crisis in 2009, when it shrank by 1.5%. The resumed blackouts could have an even more severe adverse impact on Q1 growth numbers—especially when coupled with the COVID-19 narrative. Research from Efficient Group established that load-shedding reduced the country's GDP growth by r 0.30% in 2019, the equivalent of R8.5bn of real GDP (INSTINCTIF PARTNERS, 2021). The South African economy has, therefore, been struggling since 2007 owing to the unstable electricity supply (Trace, 2020).

2.6.1 The economic impact of load-shedding on businesses in Cape Town

Over the last 14 years, load-shedding has caused a devastating impact economically. Several businesses cannot function without electricity and, therefore, they need to dismiss customers and employees who cannot work. If we look at smaller businesses now, they are one of the most economically affected by load-shedding. Large businesses can mostly sustain themselves during the load-shedding crisis, whereas small businesses are more vulnerable. SMMEs are the economic basis of the South African economy. "The sector is employing more than eight million South Africans spread across close to five million formal and informal SMMEs, contributing 40% turnover of all enterprises in the country" (Reporter, 2019).

"With the onset of load-shedding again, many small businesses are warning that their survival remains in the balance, especially with the double blow of the Covid-19 pandemic. And the situation is even worse for SMMEs that cannot afford other means of generating power" (Mokwena, 2021). Many small businesses in Cape Town have had to close to the double impact of load-shedding and the pandemic of COVID-19. Recently, load-shedding has had an enormous impact on the SMME sector, although it has yet to be quantified (Mokwena, 2021).

> "Sphamandla Mazibuko who runs a poultry farm in KwaZulu-Natal said load-shedding had all but ravaged his poultry stock. "I depend on the electricity to keep my three-day-old chicks warm at night and during cold weather days,". "When the recent load-shedding wave started, I was forced to start using *imbawula* to warm the chickens, and it's not enough. Every day there is load-shedding, I lose three chickens." (Mokwena, 2021).

Several SMME business owners lack the funds to afford power alternatives, such as generators, to keep the power on if blackouts conflict with those business hours. For example, if they have two to three hours without electricity during working hours, it will have a significant economic impact. Without electricity, SMMEs business owners are left vulnerable and are at substantial risk of losing a large number of funds owing to deficient service delivery of electricity, water and inadequate infrastructure, and undeveloped roads (Leboea, 2017). No SMME is immune to the risk of load-shedding. It not only harms the South African

economy but there are also underlying concerns (Alumo Energy, 2020). Below are some concerns most SMMEs and businesses encounter:

- Failing Wi-Fi: essential for any prevailing business. Several small businesses rely on load-shedding to operate. “Not only do businesses lose production and profits, but they also have no access to Wi-Fi which relies on electricity and when businesses are not able to connect to the network, they may miss important information or not have the ability to send out quotations, invoices” (TMMBS, 2022).
- Low staff morale: load-shedding can cause employee morale to immerse. This can cause distracted, unproductive employees, leading to a loss in revenue if customers are unsatisfied with service delivery (Alumo Energy, 2020).
- Faultiness of ATMs: “The retail and restaurant trades suffer significantly when ATMs stop working” (Alumo Energy, 2020). This can become a huge inconvenience for customers, avoiding shopping during load-shedding.
- Spoilt goods: an enormous load-shedding risk, especially for restaurants or businesses selling food. Load-shedding can cause food to spoil, leading to a loss to the business because they cannot sell such items (Kohler, 2022).
- Unable to trade: SMMEs are very reliant on electricity, especially when their operations depend on electricity. Without the most basic thing, light, several SMMEs are forced to close during load-shedding, leading to a drop in sales and revenue and eventually can lead to permanent store closure (Eye Energy, 2020).
- Damaged and broken equipment: the surge of electricity when the power returns cause disrupted voltages; since load-shedding is frequent, it eventually damages the electrical components (Gustav, 2022).
- Bad traffic: load-shedding affects the traffic on roads. When the traffic lights are malfunctioning, it can cause a traffic backlog. It is unappealing for a potential shopper to be stuck in traffic, causing them to stay at home (TMMBS, 2022).
- Compromised security: “Shoplifting, blatant theft, compromised digital systems and shutdown firewalls … security turns off with the power” (Alumo Energy, 2020). This can leave SMMEs vulnerable to attacks from physical to virtual theft.

SMMEs are, therefore, the most vulnerable during times of load-shedding.

2.7 Defining psychosocial

The psychosocial impact observes individuals in combined psychological factors and surrounding social environments that could impact their physical and mental wellness and their ability to function (Woodward, 2019).

The expression 'psychosocial' has been around for centuries; however, the term has morphed. The expression mainly arose from the emergence of psychology and sociology as distinct academic disciplines in the late 19th century (Krekorian, 2021). Most modern psychologists subscribe to the psychological or the biopsychosocial model. The psychosocial model aims to reconcile the insights of an individual's psychological and social well-being.

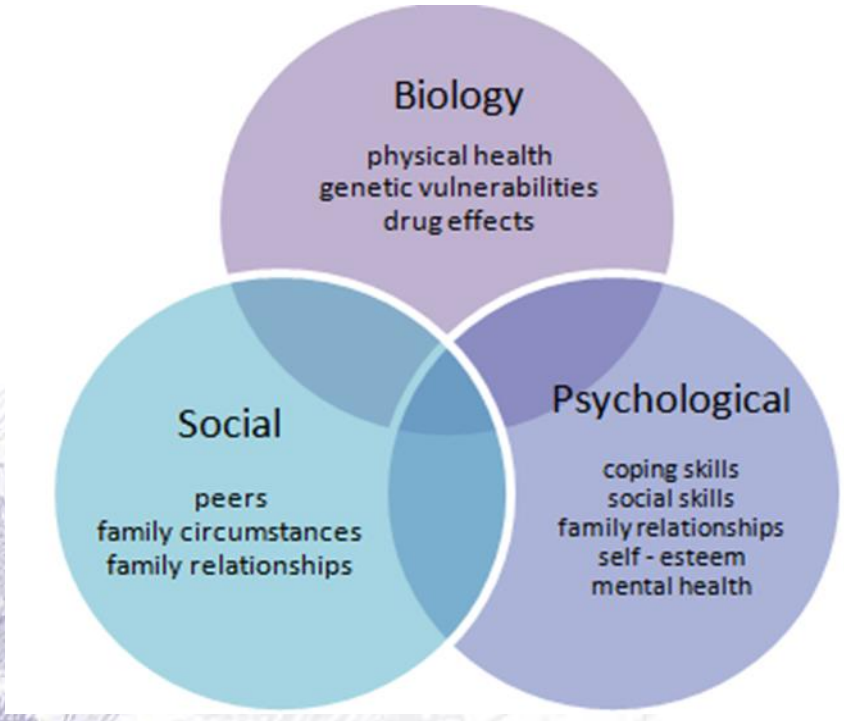

Figure 2.6. The biopsychosocial model. Engel, G.L. (1977). The need for a new medical model: a challenge for biomedicine. *Science*, *196*(4286), 129-136. https://doi.org/10.1126/science.847460

Engel (1977) was the first to propose the biopsychosocial model in 1977. The author attempted to develop a more holistic approach by recognising that each person has their

"own thoughts, feelings, and history". *Figure 2.6* depicts three interlocking circles, symbolising the three factors—biology, social, and psychological, with the interconnection of each factor. This reflects that one factor will activate another, such as psychology affecting biology (Engel, 1997). Psychosocial in businesses refers to the interactions among employees and their work environment, job content, organisational conditions, and culture. This study, therefore, observed load-shedding and how it affected businesses.

2.7.1 The psychosocial impact of load-shedding on small, medium, and micro enterprises

Research revealed that extended periods or frequently losing a basic service, including load-shedding, can cause several mental health conditions, such as depression and anxiety. Staff morale plays a significant role in executing professional duties, particularly among those employed by SMMEs.

"A salon owner in Soshanguve Block H, Johannesburg, Arthur Mabela, said: 'I do not have a generator, and this has resulted in the loss of customers. I have no choice but to tell my customers to leave and they leave with their money. Now I do not have money to buy food or pay rent'" (Gagoopane, 2015).

Not paying for a basic need, such as food, can, therefore, impact psychological well-being. Neglecting basic needs can cause depression and anxiety (Seymour, 2020) as several individuals, especially women, are sole breadwinners and have families to provide for—"Nearly 38% of households in South Africa are headed by women. They largely—or solely support the home financially as breadwinners" (Parry, 2020).

"Anxiety and depression seem to be the new norm in clinical practice but aside from the obvious socio-economic and political stresses surrounding load-shedding, there may be biological reasons behind why being in the dark is making everyone more stressed and depressed" (Lownie, 2020). Most South Africans have little faith in the government, as load-shedding is a reoccurring aspect, seemingly unrepairable. Emotional trauma is caused to society since the government continues with unwise decisions. The fear and uncertainty of not knowing whether a business will have electricity to operate causes anxiety and

frustration. This adds further stress, as people must start re-planning and ensure they meet deadlines by working around this disruption (Lownie, 2020).

Several businesses and employees are pursuing new ways to cope with this frustration because of escalating mental health concerns owing to load-shedding. Load-shedding not only affects the financial status of SMMEs but also has a psychological impact (Laher, 2019). According to Erik Kruger (2019), 9 practices to help employees and businesses through the pressures of load-shedding:

- Being in control: being in control of one's mind will allow you to accept your situation and think more positively about how to work around it or combat it.
- It is only temporary: load-shedding is not forever. To realise that load-shedding is not a permanent thing, but an unpredictable thing that comes and goes. People need to take comfort in it not being a complete blackout.
- Space: "Realise that during times of intense pressure and stress, your decision-making ability is affected. Therefore, allow yourself to live in the space between stimulus and response" (Kruger, 2019).
- Challenge: Mentally sturdy people can observe load-shedding as a challenge rather than a threat.
- Being optimistic: "The moment you allow your environment to dictate how you feel, you lose. You have the ability to self-generate emotions" (Kruger, 2019). Remaining optimistic will allow oneself to remain positive.
- Substance: In times of load-shedding, it can cause one to build character and see load-shedding as an opportunity to be productive in ways that do not need electricity.
- Leader: evaluating your behaviour in these times is crucial as you can learn more about yourself and where to improve.
- Physical: "The emotional and financial pressure that accompanies load-shedding will undoubtedly affect your body" (Kruger, 2019). Always take care of your body, and do not turn to unpleasant habits, such as smoking or binge eating.
- Having gratitude: "Science has shown that a gratitude practice can have a demonstrably positive influence on one's state of mind" (Kruger, 2019).

Load-shedding affected several businesses in Cape Town, resulting in closing down or cutting resources. Most businesses cannot afford to invest in a generator (Reporter, 2019). Load-shedding is an enormous cause of unemployment. Several businesses had to retrench staff to stay afloat, disrupting them from achieving their goals, as they cannot function at an optimum level without a full staff complement (Reporter, 2019).

2.8 Power alternatives during load-shedding

Several South Africans consider power alternatives, with load-shedding being a long-term national concern. Those fortunate enough to have been using these alternatives to power not only their households but also their businesses (Omarjee, 2021). In 2021, people contemplate additional forms of power or alternative routes, such as planning their day to avoid the loss of electricity for several hours.

2.8.1 Uninterruptable power supply systems

UPS (uninterruptable power supply) comprises rechargeable batteries stored in one unit. UPSes are usually directly connected to the main power distribution source of a house or business, therefore, it automatically switches on during load-shedding (McFarlane, 2021).

2.8.1.1 Advantages of an uninterruptable power supply system

- The UPS system is reliable and works instantly when load-shedding commences
- No interruption occurs as the power is continuous during load-shedding
- UPS systems usually last around five hours, beating the load-shedding time—usually two hours
- Provides surge protection, meaning it does not damage electronics as the electricity supply is not cut off

2.8.2 Generators

A generator is a simple device or machine, generating electricity from natural gas, propane, or diesel when power from the local grid is not available. Generators are commonly used in large businesses or plots, such as shopping centres or hospitals (Critical Power, 2021).

2.8.2.1 Advantages of generators

- Generators are quick and automatic. It provides power instantly during load-shedding
- Eventually, generators are cheaper than solar power systems and uninterruptible power supplies (UPSes)
- It is safe as it protects homes and businesses from dangerous voltage shifts and surges when the local grid goes back on

2.8.3 Solar power systems

Solar power systems blend power from the grid (Eskom), solar panels, and batteries to supply energy. When the sun beams reach the panels of the solar power system, rays of the sun are collected, generating electricity for the designated area. Batteries will serve as a backup on cloudy days (Virtual Sense Power, 2022).

2.8.3.1 Advantages of solar power systems

- Minimal maintenance is required and does not make noise
- No air pollution
- Dependable and flexible
- Automatically supply power during load-shedding
- Safe and clean
- Always available and free as it stores an abundance of solar energy
- No future costs as it is not affected by petrol prices or Eskom

Several South Africans have switched to these alternatives, however, those in the lower-level income bracket are not as fortunate and have had to resort to candles or endure the darkness. This resulted in lost hours of business and limited functionality at home, “Frequent or long-lasting power outages are thought to constrain the economic wellbeing of households and businesses by reducing the output from existing electrical appliances and discouraging investments in new welfare-improving and income-generating ones” (Trace, 2020). Websites and news outlets provide South Africans with additional ways to survive during load-shedding (Table 2.2).

Table 2.2

Tips and tricks to survive load-shedding

TIPS AND TRICKS TO SURVIVE LOAD-SHEDDING

1. Go solar. Install a solar geyser; obtain solar lamps for the garden. Use solar cell phone chargers

2. Obtain gas. Gas stoves are becoming a top choice for several South Africans as it is a way for them to prepare meals even during load-shedding

3. Use empty plastic cool drink bottles and fill them with water and place them in the freezer. During load-shedding, put it in the fridge to keep food and beverages cold until the power returns

4. Battery-operated lights. Using lanterns, torches, and other battery-operated lights will help keep light in dark areas when the power goes off

5. Obtain a head torch or cap. Many of these can be found at your hardware stores, such as Builders or BUCO. These can be strapped to your head, and you can walk around easily within your business house

6. Obtain a generator. The most expensive option, but depending on an individual's budget and needs, this is the most beneficial source, powering several items at once

7. Ensure all items are charged before the scheduled load-shedding. This happens because several people cannot afford alternatives, therefore, planning their days around load-shedding seems to be the most viable option

Source. Simone, MMS Group. (2021). *7 Tips to surviving load shedding*. https://www.mmsgroup.co.za/7-tips-to-surviving-load-shedding/

2.9 Conclusion

Most South African knows the meaning of *load-shedding*. When the term is mentioned, a sense of dismay or upset transpires, especially for those with businesses that cannot afford alternatives or those housed in buildings that cannot sustain it (Gustav, 2022). Over eight million South Africans are dispersed across five million formal and informal SMMEs. These SMMEs contribute to 40% of the country's economy, relying on the success of entrepreneurial small businesses (Africa, 2020). Based on the information provided in this chapter, significant power alternatives and initiatives can be implemented to lessen the pressure of load-shedding; however, South Africa still has a far journey ahead before SMMEs can sense relief. The economic and psychosocial impact of load-shedding on society must be considered. SMME owners might encounter distress on why their businesses are affected; this is why they should understand no business is immune to load-shedding when lacking alternatives (Africa, 2020). The subsequent chapter explains the methodology employed to achieve the study objectives.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

According to Chawla and Sondhi (2011), research is the building block and pillar of each discipline, scientific or otherwise. According to Jansen and Warren (2020), research methodology refers to the practical procedures and techniques employed to identify, select, process, and analyse information about a specific topic. This chapter depicts and discusses a qualitative methodological framework, guiding the present research. This chapter offers a clear, detailed description of the research design, embracing the method to obtain and collect data, the chosen sample, the data analysis, and the study's reliability. The chapter concludes by reviewing and discussing the ethical considerations observed.

3.2 The research design

According to Akhtar (2016), research design can be the research blueprint. The current study employed an interpretive phenomenological qualitative research approach. An interpretive phenomenological qualitative research approach aims to survey lived experiences (Smith & Osborn, 2015). According to Alase (2017), the interpretive phenomenological qualitative research approach offers researchers the best opportunity to understand the innermost deliberation of 'lived experiences' of participants. The aforementioned research design used various approaches to ensure the reliability of the research design and the data analysis in gaining an understanding.

The main purpose of the interpretive phenomenological qualitative research approach is to explore how participants are providing the meaning to their personal and social world. The principal currency for an IPA study is the meanings, particular experiences, events, and participant statements (Smith & Osborn, 2015).

According to Tuffour (2017), an interpretative phenomenological analysis focuses on experience convergence and divergence, and the mission of examining detailed and nuanced analysis of the lived experience of a few participants. The main reason for using this approach is for this research to provide knowledge to small business owners, helping them to more

intensely understand the impact of load-shedding. This study, therefore, followed a qualitative approach to gain and obtain data. The research investigated the problem from a participant's perspective.

3.3 Research paradigm

This study employed the interpretivism paradigm, with the primary objective of making sense of the meanings and subjective intentions of participants in a context, without imposing a priori analytic categories (Bonache & Festing, 2020). According to Nickerson (2022), Interpretivism is an approach in social science asserting that understanding the beliefs, motivations, and reasoning of participants in a social situation is vital in decoding the data meaning collected on the phenomenon. The justification of utilising the interpretivism research paradigm, was to support the interpretive phenomenological qualitative research approach which was adopted for the current study. The other justification is that the researcher wanted to understand the experiences, feelings, and attitudes of participants on the perceived psychological and economic impact of load shedding on employees. Lastly, the nature of the research questions, that is 'How' and 'What' questions, for example, 'How did the selected SMMEs cope with load shedding challenges' justified the use of the interpretivism paradigm in this study.

3.4 Population

Momoh (2021) observes a population as a distinct group of individuals, whether that group comprises a nation or a group of people with a common characteristic. The current study was conducted in Cape Town. Selected small businesses were disadvantaged during load-shedding with limited access to alternative power sources. This study, therefore, explored the economic and psychosocial impact of load-shedding on clothing boutiques in Cape Town.

3.5 Sample

Sampling is the selection of a subset of the population of interest in a study (Turner, 2020). According to Qualtrics (2022), sampling is a subset of individuals to represent the entire population. This study chose a non-probability approach. Non-probability sampling techniques are where the researcher deliberately chooses items or individuals for the sample based on the study goals and objectives (Qualtrics, 2022). The non-probability sampling technique chosen for this study was both purposive and referral sampling.

3.5.1 Purposive sampling

This study employed a purposive sampling method. According to Jordan (2021), purposive sampling is non-probability sampling, where researchers rely on their own judgement when selecting individuals of a population to participate in their surveys. Dudovskiy (2016) concurs that purposive sampling involves sample elements chosen by the judgement of the researcher.

3.5.2 Referral sampling

Referral sampling refers to a method that usually involves identifying participants meeting certain criteria, gaining their cooperation, requesting them to recruit additional participants meeting the same criteria (Heckathorn, 2002). Bhat (2018) concurs that chain-referral sampling can be defined as a non-probability sampling method where samples have rare to find criteria. Samples provide referrals to recruit other participants holding comparable criteria.

This method was chosen attributable to the convenience of the researcher. The COVID-19 pandemic complicated finding interviewees. Three participants from three boutiques were chosen based on their willingness and availability to participate. Only nine participants were chosen, assuring thorough information.

The participants selected for this study were in high-level positions as business owners or supervisors. At the beginning of the interview, each participant was requested to state their name, job title, gender, age, education level, and place of work. The biographical information requested for the interview can be observed in table 3.1.

Table 3.1

Participants' biographical information

Participant (P)	Gender	Age	Job title	Education level
Participant 1	Female	27	Business co-owner	Degree – BSc in Oral Hygiene
Participant 2	Female	50	Business co-owner)	Degree – B.A. in Fashion Design
Participant 3	Female	24	Business co-owner	Matric
Participant 4	Female	55	Business owner	Diploma – secretarial course
Participant 5	Female	34	Supervisor	Degree
Participant 6	Male	32	Designer/owner	Diploma – design and sewing
Participant 7	Female	42	Business co-owner	Degree – B.A. Fashion Design
Participant 8	Female	31	Business co-owner	Degree – BTech Human Resource Management
Participant 9	Female	38	Supervisor	Matric

3.6 Data collection procedure

The data collection process involves collecting the basic information required for conclusions (Bhandari, 2022). For this present study, semi-structured interviews were conducted. Such interviews allow the interviewer to surpass the constraints of the set questions with follow-up questions while acquiring additional information purposeful to this study. The interview guide was created with assistance from the supervisors for this study. Because of the COVID-19 restrictions, an online platform was used for interviews. Face-to-face interviews were also conducted with participants who preferred to be seen in person. This data collection procedure was chosen as it allowed exploring the load-shedding crisis in depth with small clothing boutiques, indicating its effects. This allowed for probing and a sense of rapport to be built during the interviews. Participants were, therefore, more comfortable and willing to provide further information.

Ethical clearance was obtained from the Human and Social Sciences Ethics Committee at the University of the Western Cape (Ethics Number: HS21/7/40) to conduct this study. Participants consented to use the information collected from interviews for the study. Participants were granted information about the study, confidentiality, anonymity, and rights to privacy. The consent forms presented participants with an understanding of the study and what information will be used. All participants were requested to indicate their availability. Because of COVID-19 restrictions, they could choose between face-to-face or online interviews. Each interviewee provided permission to be recorded for this research. Participants received a permission form (APPENDIX B: CONSENT FORM) to electronically sign and secure the study.

An interview guide with questions for this study assisted in identifying focus areas when conducting the interviews. This also allowed probing when necessary to acquire valuable additional information (APPENDIX A: INFORMATION SHEET). Eight questions were presented to the interviewees, including “How did load-shedding impact your place of work/ your business? Why has this been the case—why do you think it has had such an impact?” and “Based on that you rely on your clientele to ensure a successful business, how did load-shedding impact your clientele?

The face-to-face interviews were audio recorded while online interviews were screen recorded. Field notes were also made as several participants indicated physical emotions, such as crying and body posture. Attention was devoted to comforting the participants, especially when resulting in crying, by offering a tissue and assuring them to stay positive about the future. According to Sutton and Austin (2015), field notes allow the researcher to maintain a comment upon impressions, environmental contexts, behaviours, and nonverbal clues that may not be captured through audio-recording.

The study produced a verbatim transcription of the nine interviews. Participants were assured that the data would be kept safe and locked through a security pin to ensure confidence.

3.7 Data analysis

This study employed thematic analysis as it is one of the primary methods in analysing qualitative data. Thematic analysis can be defined as the method of perusing data sets, such as transcripts or interviews to identify patterns (Willig, 2017). Thematic analysis is the ideal method for qualitative research, aiding the research in identifying and discovering participants' views, opinions, knowledge, values, and experiences from qualitative data (Caulfield, 2021).

Braun and Clarke (2019) introduced the thematic analysis approach. This approach involves the following five-step process:

- Familiarisation
- Coding
- Generating initial themes
- Reviewing themes
- Write up

Each phase is sequential, and each is built on the previous. These helped identify themes with an analysis. These five steps are outlined below (Sections 3.7.1.3.7.2, 3.7.3, 3.7.4 and 3.7.5.)

3.7.1 Familiarisation

Familiarisation is the first phase of thematic analysis. According to Braun and Clarke (2019), Familiarisation involves becoming conversant with the data by reading and re-reading interview transcripts. The current study ensured the perusal of the content for engagement. The transcripts of the interviews were perused twice; the audio/video recordings were listened to twice.

3.7.2 Coding

Coding is the second phase of thematic analysis. According to Crosley (2021), coding involves pursuing patterns or themes in the codes. This phase involves creating labels or codes that will identify noteworthy data features and provide answers to research questions. The transcripts were perused twice, thoroughly, while assigning codes to the data. After completion of the coding, the codes were clustered, and then linked to the participants' responses.

3.7.3 Generating initial themes

Generating initial themes is the third phase of thematic analysis. According to Delve and Limpaecher (2020), this phase concerns sorting the codes into potential themes and identifying themes to be presented in subthemes.

This phase involves the examination of the codes and data to identify patterns of meaning or potential themes. The codes were grouped, and the themes and subthemes were identified, surfacing from the participants' responses, sharing similar responses and opinions. The themes were minimised to the most relevant for the research.

3.7.4 Reviewing themes

Reviewing themes is the fourth phase of thematic analysis. According to Braun and Clarke (2019), reviewing themes involves the researcher observing the themes and reviewing them against the data; therefore, determining whether it answers the research question. The themes are refined and distributed to two other researchers for comparison.

3.7.5 Write up

This is the fifth phase of thematic analysis. According to Delve and Limpaecher (2020), defining and naming themes tells the story of the data. Communicate what was discovered from the data by using themes and subthemes to give it structure and tell a story. This phase involves merging the analytical narrative and data extracts by contextualising the analysis relative to the literature.

3.8 Trustworthiness of Data

Trustworthiness refers to the degree of confidence in the data, interpretation, and approaches to ensure the quality of the study (Connelly et al., 2016, p.1). Trustworthiness is the focus of qualitative research. Although several researchers and experts agree that trustworthiness is necessary, debates have been waged in the literature on what constitutes trustworthiness (Leung 2015). Lincoln and Guba (1985) confirm the criteria for trustworthiness as:

- Credibility
- Dependability
- Confirmability
- Transferability

3.8.1 Credibility

Credibility involves the confidence of the research and, therefore, the findings are the most vital criterion (Polit & Beck, 2014). Credibility in the current study was established by constructing semi-structured interviews and presenting hypothetically informed questions. The interview guide also provided questions with the necessary probing and lenience for reframing during the interview, depending on the participant. The researcher, a student of Industrial Psychology, was equipped to conduct the interviews.

Rapport was built with participants to ensure an efficient and thorough understanding of not only the participants but the organisations. The researcher's supervisors had debriefing sessions, ensuring that the present study and its analysis were adequately feasible.

3.8.2 Dependability

Dependability refers to the data constancy over time and the research conditions (Polit & Beck, 2014). Dependability is verified through research design and how it was implemented. To ensure the dependability of this study, the approach of code-ensured that the findings were valid and consistent. Once all the data was transcribed and collected and the themes identified, the findings were presented to the supervisor(s), who approved the codes. The research findings were recorded once they were established as reliable.

3.8.3 Confirmability

Confirmability involves the findings being consistent and that they could be repeated (Polit & Beck, 2014). The research established its confirmability by enduring triangulation, audit trails, and reflexivity. Records are kept, including a reflexive journal containing the process, steps, and approaches, to the research. An audit trail involves the research narrative from the start of the assignment to the development, and finally to the findings.

3.8.4 Transferability

Transferability involves the extent to which the findings are useful to the people in other settings, while differing in that readers can determine the relevancy of the findings to their situations (Polit & Beck, 2014). For the present research to be transferable, the sample needed to represent the study context. The participants represented the context by being business owners and supervisors of small clothing boutiques in Cape Town. Load-shedding affected them directly. All the information accumulated allows the readers to form their own opinions regarding transferability. This will permit assistance for other small business owners in the same situation.

3.9 Ethical considerations

Ethical considerations are the collection of principles and values that should be followed while conducting human affairs (Bhasin, 2020). Ethical issues must be considered during the formulation of the evaluation plan. The evaluation includes ethical considerations:

- Informed consent
- Voluntary participation
- Do-no-harm
- Confidentiality and anonymity (Trochim, 2010)

The researcher's role in supporting ethical considerations abided by considerations, such as confidentiality, and obtaining informed consent from the interviewees to participate; each participant voluntarily participated, and no harm was done to them.

3.9.1 Informed consent

Participants received an information sheet (APPENDIX B: CONSENT FORM). The information sheet outlines the aim and purpose of the study, including the roles and responsibilities of the researcher, the reason for participating in the study, and the option to withdraw if the participants feel uncomfortable with the process.

For this study, permission was obtained from the Humanities and Social Sciences Research Ethics Committee from the University of the Western Cape, with ethics clearance number HS21/7/40 (APPENDIX D: ETHICS CLEARANCE CERTIFICATE). This information was conveyed to all participants, aiding them in understanding the main study rationale before agreeing to participate. "To abide by the ethical considerations, the researcher needs to inform the participants about all the activities taking part in the research and make informed consent from them before starting research work" (Bhasin, 2020). Each participant agreed to the study terms before endorsing the informed consent form before the interviews.

3.9.2 Voluntary participation

Voluntary participation means that people participate in the evaluation, free from coercion. Participants may withdraw at any time (Trochim, 2010). Participants were assured that their participation was voluntary and that they could withdraw with no consequences, as it is their right.

3.9.3 Do-no-harm

Harm can be both physical and psychological and, therefore, can be in stress, pain, anxiety, diminishing self-esteem, or an invasion of privacy (Trochim, 2010). Participants were assured during the interview that if they felt uncomfortable responding to a question, they did not have to answer. In this study, each participant was open to answering all the questions. No participants were harmed or experienced any form of stress or trauma. If at any point, any participant experienced some trauma or stress, the researcher, aided by her supervisor(s) as a registered industrial psychologist, would intervene. After analysing and transcribing the data, each participant was ensured that they would not be exposed to harm and that their identities would be safeguarded.

3.9.4 Confidentiality and anonymity

Confidentiality means that any information related to participants or provided by the participants cannot only be accessed by the researcher (Bashin, 2020). At the beginning of the interviews, the participants were required to provide their name, job title, gender, age, education level, and business they work for. They were assured that their identity would be protected, and their business names would be concealed in the study; the ethical considerations were adhered to when dealing with confidentiality.

Anonymity is the privacy of any participant-related information that cannot be provided or accessed by anyone other than the researcher under no circumstances (Bashin, 2020). In the current study, the participants were assured that they would remain anonymous and that information that could identify them was removed. The information was password protected, including the original interview notes and the audio recordings to ensure safeguarding.

3.10 Conclusion

This chapter discusses the methods employed for data collection and analysis. This chapter emphasises ethical considerations, ensuring all participants are comfortable and protected throughout the entire process. The subsequent chapter follows the study's findings.

CHAPTER 4: PRESENTATION OF RESULTS

4.1 Introduction

In this chapter, the findings and discussion are represented through the data collected in the semi-structured interviews. This chapter establishes how the data corresponds with the themes and subthemes identified. Linkages are established on how load-shedding affected the nine participants in the main themes and subthemes generated through the coding process.

4.2 Research findings

The primary study objective was to answer the following research questions:

1. What is the perceived psychological impact of load-shedding on employees in selected SMMEs?
2. What is the perceived social impact of load-shedding on employees in SMMEs?
3. What is the perceived economic impact of load-shedding on employees in selected SMMEs?
4. How did the selected SMMEs cope with the load-shedding challenges?

Semi-structured interviews were conducted and deciphered to identify the themes and subthemes in providing answers to these questions. These main themes emerged from the interviews and findings:

1. Psychological
2. Social
3. Economic

Participants were requested to explain the impact of load-shedding on their businesses. The information obtained from the semi-structured interviews established the context and framework, allowing for further investigation. This allowed establishing how each participant was affected and understanding the impact of load-shedding on SMMEs.

Participant feedback concerned aspects, such as loss of time, loss of income, social interaction, and mental state, covering all main themes within this research. These three main themes were further divided into sub-themes (Table 4.1).

Table 4.1

Themes

Super ordinate themes	**Subordinate themes**
Theme 1: Psychological	Well-being
	COVID-19 pandemic
Theme 2: Social	Customer interaction
	Social support
Theme 3: Economic	Loss of clientele owing to load-shedding
	Loss of production owing to load-shedding
	Lost hours owing to load-shedding

4.2.1 Psychological focus

According to Laher (2022), prolonged or frequent loss of basic services, including power outages, has been revealed to precipitate the onset of several mental health conditions, such as depression, anxiety, and post-traumatic stress disorder. This identifies that load-shedding affects our psychological well-being. Psychological focus refers to the mental state of participants during load-shedding.

4.2.1.1 Load-shedding and well-being

Based on the findings, majority of the participants suffered psychologically because of the constant uncertainty that load-shedding brought to their businesses. Most participants confirmed their struggle to cope and accept their situations. Statements from Participant 1 and Participant 3:

> "Where do I begin, due to the lack of sleep by working overtime, this has caused me to have slight insomnia. My husband is trying to assist me there and here but there is only so much he can do. I do overwork and overstress myself a lot" (Participant 1, female, business co-owner).

> "Yes, major psychological consequences. I have gone into a depression as I chose this career path for myself and decided to not go study" (Participant 3, female, business owner).

The two participants perceived that load-shedding triggered their emotional well-being, such as depression and insomnia. This signifies the extremity of load-shedding and its burden on SMMEs. According to Dladla (2016), reduced electricity caused a decline in manufacturing productivity, worsening previously slow national and global demands which has impacted on many SMMEs business owners and their psychological state.

Levy (2021) concurs that load-shedding signifies a frustrating and disappointing time. Generators are not always practical and backup inverter solutions are expensive; therefore, several businesses had to shut down. Even with alternatives available, several businesses owners cannot afford these, causing further frustration leading to psychological effects, such as anxiety, stress, or depression.

> "A lot of stress, anxiety and depression. Not knowing if I'm going to be able to make a monthly income has been super scary for me especially since I have been the main bread winner in my household. On the other hand, I have had a great support system and a loyal client base, so each month I just make ends meet.". (Participant 2, female, business co-owner).

The findings further suggest that participants experience the stress of not being able to purchase alternative energy sources. Each participant spoke with a saddened or disheartened tone during these questions. Some participants physically expressed emotions, whereas others still sensed disbelief in their situations. This was observed attributable to body language and tone of speech.

> "It's hard to plan ahead with load-shedding as it's unpredictable, you only get alerts from Eskom the day load-shedding starts and they keep extending it. It's difficult to try and invest in I'm tech that will allow us to work through load-shedding as a small business, every cent we make we have to stretch" (Participant 7, female, business co-owner).

Not only have SMMEs had to deal with the consequences of load shedding, the introduction of the COVID-19 pandemic in 2020 placed numerous demands and challenges which further conveyed considerable uncertainty for these businesses (Mokwena, 2021).

4.2.1.2 Load-shedding and the COVID-19 pandemic

According to the research findings, participants were affected psychologically by load-shedding and COVID-19 restrictions.

> "Fashion has always been my passion but going through this and COVID it has caused me to be demotivated a lot of the times" (Participant 3, female, business owner).

> "Absolutely nothing we can do, must make it apart of life but it's not supposed to be that way. Must make your business work even though you are losing revenue and it is a double impact along with COVID-19 and understanding people going through depression" (Participant 4, female, business owner).

Approaching load-shedding and the COVID-19 proved challenging for Participant 3, encountering the struggle to manage around work hours owing to load-shedding and the national shut down. This reduced the number of customers coming in or even online shopping as several citizens were struggling to buy necessities. In addition, the majority of SMME owners strongly agreed that the global pandemic, Covid-19, has significantly changed consumer buying patterns (Makuwe, 2021). For example, according to Arndt (2020),

households with low levels of educational attainment and high dependence on labour income experienced an enormous real income shock, jeopardising their food security. Several low-income households, therefore, struggled to provide for their families.

COVID-19 has changed the workplace where businesses are no longer fixed to a building. The office has become a place that can be occupied with a laptop and Internet access (Job, 2021). However, this was not the case for the participants as many of them had boutiques and relied on customers coming in to make purchases.

> "…the main thing that has impacted customer facing interactions is the current pandemic." (Participant 8, female, business co-owner).

> "We lost money, time and some clientele, I would say that is due to the COVID restrictions" (Participant 9, female, supervisor).

Patrick (2021) interviewed several SMMEs to determine how load-shedding affected them. One business owner remarked they would lose nine and a half hours of productivity. This has caused a loss in revenue, employees losing their jobs as the market in South Africa is declining with load-shedding and COVID-19, and just frustration (Ndima, 2022).

Most participants acknowledged that load-shedding and COVID-19 protocols disrupted their psychological condition, causing a loss in their businesses. The fear and let-down of not working and producing caused several to feel drained. According to Matewe (2021), several workers are experiencing immense socioeconomic pressure. Most workers lost their jobs, owing to factories that could not operate during load-shedding and the lockdown. These economic mishaps have deep social, economic, and psychological effects on the working class.

> "Yes major psychological consequences. I have gone into a depression as I chose this career path for myself and decided to not go study. Fashion has always been my passion but going through this and COVID it has caused me to be demotivated a lot of the times but as soon as a sell something and see someone smiling in my garment it reminds me of why I love what I do." (Participant 3, female, business co-owner).

> "We are just over 2 years old and started in January 2020 just before the pandemic hit us, so the pandemic has really caused deep problems as we are a new business and need all the customers we can get" (Participant 1, female, business co-owner).

The participants also appeared unsure of how to conduct their businesses owing to load-shedding and COVID. The disruption of the lock-down caused anxiety as business owners were not able to fulfil orders due to only being able to have a full staff compliment (adhering to social distance protocols). Participant 7 indicates they were unsure if they would make it through all their orders but considered informing their customers should they reach the stage of not knowing whether they would finish.

> "Being in the store, it caused some stress as some clients would ask if there is more of this item and I would have to say unfortunately not but they can go onto a waiting list but that's just a turn off for some and they either purchase something else or leave with nothing" (Participant 9, female, supervisor).

This further justifies Participant 7's opinion, confirming that Participant 9 also had some sense of not knowing what to do. Several expressed anxiety, stress, or frustration. A study conducted by the National Economics University (2020) demonstrates that the majority of businesses are facing complications due to the Covid19 pandemic. These complications include a decline in revenue due to the lack of production activities, shortages of raw materials and inability to export (Le et al., 2020). This disrupted their daily business activities; therefore, it is perceived that their psychological mindset was affected.

4.2.2 Social focus

Social focus refers to the way participants manage social interactions, such as customer relations, and support from colleagues and family. Interactions are crucial for SMMEs. According to Laher (2021), a loss of communication during load-shedding presents a substantial challenge. This includes an inability to recharge cellular phones, inadequate network signals, and loss of internal electrically dependent telephonic systems; therefore, a lack of social interaction is perceived as affecting their business.

4.2.2.1 Customer Interaction

Participants indicated that their social interactions declined because of load-shedding and the COVID-19 pandemic. The findings further confirmed that some participants moved their businesses online; this also caused less interaction during load-shedding as they could not access their business.

> "It has a lot! Right now I am not having a lot of customer-facing interactions due to COVID but load-shedding just puts the cherry on top -- When load-shedding occurred it would cause them not being able to see the clothing properly like the true colour or the print etc. which caused them to come back another day" (Participant 1, female, business co-owner).

> "Yes, there has been a social impact. Not being able to make garments or make something on time because not being able to have client appointments because of COVID and on top of that load-shedding makes our customers not want to come by." (Participant 3, female, business owner).

The findings from these participants identified a lack of social interaction with their customers. They felt a lack of customers visiting or making appointments because of their safety owing to the pandemic.

Although customer's interaction was limited based on load shedding, some of the participants indicated that they only experienced minor changes in their social interactions with customers for example, participant 7 mentioned the following:

> "Not much as we do have a small boutique in Wetton which has card services so customers walk in being able to shop even with load-shedding" (Participant 7, female, business co-owner).

> "To be honest not really, we have a small boutique in Ottery where we have a lot of foot traffic and word of mouth. We do have a chargeable card machine so the only thing that really goes off is the lights but that is not really a problem since we work in the day" (Participant 6, male, designer/owner).

As observed by the participants above, having a small boutique in their area created foot traffic for them, allowing continued social interactions while forming a new customer base.

This can aid them in understanding their new clientele and accommodate more to their needs during these times of load-shedding and a pandemic. Participant 4 concurred:

> "I have a boutique shop and the card machine stays on does not affect us at all. Everything is fine because we have light during the day because of the sunlight. So, in essence load-shedding does not really affect us" (Participant 4, female, business owner).

Consequently, this was not the case for all, some participants, owing to load-shedding mentioned that customers could not make card payments, resulting in them leaving and not returning for the day. This caused less interaction as several people do not carry cash.

> "Cavendish, unfortunately, does not have generators and when there is load-shedding we can only accept cash from clients since the card machines go offline -- Majority of customers do not carry cash and this causes an issue as many leave and decided to come back later or not at all" (Participant 2, female, business co-owner).

This emphasised that even though participants can still sell during the day, it could be conducted only with cash payments, therefore, rejecting several customers or asking them to come back once the electricity has returned. This not only causes major economic effects, but social impacts; some customers may feel annoyed and may never return.

Whilst some customers may never return, there was consensus from participants indicating a loyal client base. For example:

> "Right now, we do have a boutique where we get our usual client base especially since we cater for the modest woman and in an area full of modest dressing women this has helped a lot. Our clients have remained majority of the time the same" (Participant 9, female, supervisor).

> "With load-shedding, we have had our loyal clientele from the area, so they experience load-shedding the same time we do so they just come after as they know when their electricity has returned so have ours" (Participant 8, female, business co- owner).

The findings suggest that even in times of load-shedding and a pandemic, some customers remain loyal and return to the boutiques when the electricity is back on. The perception of SMME business owners maintaining a loyal customer base is vital to social interaction.

Participants remarked that this loyal clientele came from their areas, which also clarified that they should consider their customer base and the area. This notion is supported by Alton (2021), indicating that small businesses have unique traits that make them integral to their local area or community. They can offer a more personal experience and accommodate the needs of their community. Further findings suggest the participants are confident in their loyal clientele, continuing their social interactions.

> "Majority of our clients are long time clients and know me as a person. I grew a loyal client base which has been hugely in my favour during these times." Participant 3: "A large part of our client base are good friends with my co-owner so this has helped us a lot in maintaining a steady clientele" (Participant 2, female, business co-owner).

> "With us having the boutique, we see quite regular customers. They have been loyal and understanding most of the time so the only negative I could say here is having to delay orders or reduce some" (Participant 8, female, business co-owner).

Customer loyalty plays a major role within any business (Sandekela, 2008) thus it is imperative that SMMEs do their best to maintain good relations with this customers to ensure that they return. However, when considering the "harsh economic environment" these business entities operate in (Bruwer & Van Den Berg, 2017) it can become quite a challenge.

4.2.2.2 Social Support

Majority of the participants relied on their close relationships to help them cope with the stress and anxiety of load-shedding and how it affected their business.

> "I have had a lot of stress and anxiety. I do rely on my business partner a lot. As she helps maintain my level of sanity when it comes to productivity" (Participant 8, female, business co-owner).

> "My husband is trying to assist me there and here but there is only so much he can do. I do overwork and overstress myself a lot" (Participant 1, female, business owner).

> "On the other hand, I have had a great support system and a loyal client base, so each month I just make ends meet" (Participant 2, female, business co-owner).

According to Waltower (2022), family and friends provide the main support system to helping business owners manage stress, perspective and improve their business even in times of chaos.

Tsopo (2021) concurred that he also had to rely on his friend for his bakery business as the biggest challenge for him was baking the cakes; during load-shedding, his friend offered him her kitchen.

4.2.3 Economic focus

This refers to the way participants encounter economic challenges, such as having no income or turnover, not paying employees, losing productivity, and not affording alternative power solutions. According to Arnold (2022), load-shedding caused the loss of the economic output of R700 million per stage per day. Load-shedding is estimated to contribute to over one-million lost job opportunities. Several participants claimed that because of load-shedding, their productivity plummeted immensely, causing vast economic losses.

> "Yes we have had quite an economic dip due to less productivity. We have become so swamped with orders but being unable to keep up we had to turn down some customers or ask for more time" (Participant 6, male, designer/owner).

4.2.3.1 Loss of clientele owing to load-shedding

It was observed that even though the participants were economically affected; it was more about not servicing their customers that upset them.

> "It has a lot! Right now I am not having a lot of customer facing interactions due to COVID but load shedding just puts the cherry on top." (Participant 1, female, business co-owner).

According to Seinker (2019b), small businesses cannot afford to purchase alternatives to keep their lights on during rolling blackouts. Three to four hours with no electricity has been detrimental to several SMMEs, causing an adverse financial impact as they cannot operate while losing clientele. Without electricity, SMMEs are rendered helpless and lose thousands with each load-shedding. Participant 1 agreed and remarked that their productivity was lost owing to load-shedding hours:

"Yes there has been an economic impact. Not being able to make garments or make something on time because of COVID and on top of that load shedding makes our customers not want to come by." (Participant 3, female, business owner).

Participant 2 further agreed:

"Yes, not only with load shedding but with COVID too. Usually I go to markets to sell my clothing and recently this has been happening at Cavendish. Cavendish unfortunately does not have generators and when there is load shedding we can only accept cash from clients since the card machines go offline. This happens the same at my home where I have a small studio. Majority of customers do not carry cash and this causes an issue as many leave and decided to come back later or not at all." (Participant 2, female, business co-owner).

4.2.3.2 Loss of production owing to load-shedding

A trend was observed regarding the first question (APPENDIX C: INTERVIEW GUIDE); Participants agreed on how load-shedding harmed their businesses.

"It has impacted my business a lot --- This has caused my business to take a huge dip in income and not being able to produce its normal volume of products" (Participant 1, female, business owner).

"Due to us running and operating our own factory, this has most definitely impacted us. We are predominantly an Online business and every order placed is custom-made. We work with a strict weekly lead time, so when we experience load-shedding (some days 4 hours) this severely affects our production Time and our lead time to get orders to customers" (Participant 5, female, supervisor).

"Load-shedding has caused a huge disruptance to our productivity which has caused a delay in our orders and having to turn some clients away and not bringing in our standard revenue" (Participant 8, female, business co-owner).

Each participant confirmed that load-shedding affected them and harmed productivity.

Participants mentioned that, owing to productivity loss, several could not pay their employees. According to Writer (2021b), load-shedding affected small businesses in South Africa two-fold. The first aspect is the direct impact load-shedding had on turnover and

income/the inability to trade or even manufacture; second, the increased costs of conducting business.

> "Due to not being able to produce and losing time, our revenue has been impacted severely. At this point, I take a limited amount of orders just in case I cannot fulfil customer's wishes. This has resulted in me losing income but it is keeping our business afloat. Because we cannot manufacture at our normal rate we cannot take a lot of customer orders as we won't be able to complete them on time. The less orders we can process the less money that comes in" (Participant 2, female, business co-owner).

The participant responses are parallel to Makgopa and Mpetsheni (2022) claiming that load-shedding adversely affects the operations of any business, including SMMEs. According to the findings, load-shedding affected each participant individually; however, some more than others. Participant 2 remarked that they were "immensely" affected, whereas Participant 4 mentioned handling divergences even though they were affected. This demonstrates the comparison of how load-shedding affected participants on various levels.

> "Load-shedding has impacted my business immensely. Our productivity has been slowed down due to the many hours of load-shedding occurring. This causes me not to be able to sew or do much. The impact has been so big since the load-shedding occurs during the week mostly and this causes both me and my co-owners to lose about 10-12 hours of work per week since our power goes off the majority of the 2-3 times a day for 2-hour periods" (Participant 2, female, business co-owner).

> "Own a small factory, obviously affected, what do the girls do, still have to pay them, losing production, small businesses because we work on a weekly basis, local businesses that supply clothing, order, five dresses six dresses, affects your productions. Only four girls need to sit down (they make the clothing) new stuff clothing on a weekly basis. Busy every day, don't focus on casual, wedding styles and evening wear. Cashed in on that gap but the load-shedding plays a big roles" (Participant 4, female, business owner).

Most of the participants responded similarly regarding the productivity of their businesses. The majority expressed losing several hours of production, resulting in subsidising staff and having less stock to sell.

The findings also suggest numerous challenges in producing merchandise. Because of load-shedding, productivity was brought to a standstill, therefore, they could not fulfil their orders. This resulted in these SMMEs either needing to take on fewer orders or sending messages to customers, informing them they might be late in meeting the deadline. This harmed their turnover, causing them to either make less profit for the month or attempt alternative ways of doing business.

> "So far we try to plan around the load-shedding using the EskomSePush App to check the schedule for my area".

Participant 8 concurred:

> "We do try and plan with the App EskomSePush but ESKOM is also so unpredictable. Last time we were scheduled for the 3pm slot but we ended up going off 2 hours earlier which is a critical time for us." The findings suggest that participants are trying to find ways to work around the load-shedding to reduce their economic impact (Participant 2, female, business co-owner).

According to Diboma and Tatietse (2013), power interruptions disrupt goods and service production with disastrous economic and financial consequences for the countries concerned.

Load shedding has caused immense issues and concerns, and it is a challenge that most businesses are likely to face for at least the next decade (Ryan, 2022). It has therefore become imperative to consider remedies to overcome load-shedding. This will be further discussed below.

4.2.3.3 Lost hours owing to load-shedding

Participants agreed that load-shedding affected their productivity, causing hours of manufacturing and income loss.

> "Load-shedding has impacted our productivity levels as we are not able to process and manufacture orders at our normal rate. Especially if it goes on for a week. That's 10 hours lost." (Participant 4, female, business owner).

Participant 4 opines with Participants 2 and 7 as they remarked that:

> "Load-shedding has impacted my business immensely" (Participant 2, female. Business Co-Owner). Our productivity has been slowed down due to the many hours of load-shedding occurring" (Participant 7, female, business co-owner).

Other participants experienced even more difficulties as they run online businesses.

> "We are predominantly an online business and every order placed is custom made -- this severely affects our production time and our lead time to get orders to customers" (Participation 5, female, supervisor).

SMMEs have boundless challenges that they need to face each day, and load-shedding can be one of the worst. Load-shedding often forces businesses to close for majority of the day. This has many repercussions, all of which result in impacted revenue and profits (Bromhall, 2022).

4.2.4. Remedies to overcome load-shedding

Load shedding has brought about many issues and concerns over the past decade, and it becomes imperative for SMMEs to explore alternate means to overcome load shedding as there seems to be no end in sight (Goldberg, 2015). As a final question discussed with participants many had views on how they could overcome load shedding if it were to continue. Participants suggested potential ways to assist with the load-shedding crisis by purchasing alternatives, such as generators or UPSes to aid them in circumventing the effects of load-shedding; however, several participants mentioned they cannot afford these devices as they are struggling to survive.

> "We are looking into purchasing a generator for our factory but right the cost is too much for us" (Participant 8, female, business co-owner).

> "Yes, we are trying to purchase a UPS but unfortunately it is not in our budget yet so we are currently saving up and hoping that one goes on sale" (Participant 3, female, business co-owner).

> "For us to get a generator is a huge expense, as we operate heavy machinery and would need to get a generator that would be big and sufficient enough for our operation" (Participant 5, female, supervisor).

According to Dlamini & Lebuso (2022), several SMMEs lack funds or support to survive the continuous power outages or rolling blackouts, especially during the COVID-19 pandemic lockdowns. They receive little assistance from the government or banks the costs involved are high, causing several SMMEs to rather shutdown.

> "A UPS costs quite a lot of money so that would be our main cost implications as we are already not making enough money as it is so we are saving up whatever we can to purchase the UPS" (Participant 1, female, business co-owner).

> Participant 4 concurred: "Wherever you are renting it is costing a lot as it is but a generator would cost a lot especially since it does run on petrol, includes everything but have to pay extra for electricity" (Participant 4, female, business owner).

Planning around load-shedding also caused difficulties for the participants. The only way participants could plan around the outages is by using the app called EskomSePush, as the most effective strategy. Planning their schedules would ensure effectiveness with the time provided by Eskom during load-shedding.

Each participant was also asked if load-shedding would continue for another 10 years, what would they do. The findings suggested that the participants still complained about not affording alternatives even 10 years later, which shows the stress and downfall load-shedding brought in several small businesses.

> "It has definitely had an impact on many small businesses especially with those with small factories like us that cannot afford generators." (Participant 8, female, business co- owner).

> "I know many of my friend who own small businesses are suffering highly due to the load-shedding. Many of them had to minimise their businesses or close all together. If load-shedding continues for another 10 years, I would hope by then I have at least two UPSes or a generator" (Participant 2, female, business co-owner).

> Participant 3: "I hope this does not continue for another 10 years but if it does then I really hope I can afford alternate measures" (Participant 3, female, business owner).

Economists in South Africa expressed their opinions on how SMMEs should understand the full impact of load-shedding as several either enter liquidation or bankruptcy (Assan & Masibi, 2015).

4.3 Conclusion

The subsequent chapter focuses on the findings from the themes deduced in the coding process. These themes aided in providing a deeper and richer understanding of the psychological, social, and economic impact of load-shedding on SMMEs. It also allowed establishing how the participants contested the challenge of load-shedding by using cost-free solutions, such as the app EskomSePush.

Three main themes emerged from the research findings— psychological focus, social focus, and economic focus. The subsequent chapter summarises the study findings and makes recommendations on how SMMEs, including participants, can combat the load-shedding crisis.

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CHAPTER 5: DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

5.1 Introduction

This chapter provides conclusions based on the study findings concerning the research objectives elaborated on in Chapter 1. This study mainly investigated and understood the impact load-shedding has caused on SMMEs in Cape Town, Western Cape. The limitations and recommendations are also summarised, providing further knowledge for future research.

5.2 Research overview

The study was conducted to answer the following research questions:

1. What is the perceived psychological impact of load-shedding on employees in selected SMMEs?
2. What is the perceived social impact of load-shedding on employees in SMMEs?
3. What is the perceived economic impact of load-shedding on employees in selected SMMEs?
4. How did the selected SMMEs cope with the load-shedding challenges?

The research questions were answered through a qualitative approach by using semi-structured interviews. After conducting the interviews, themes and sub-themes were derived from the findings by thematic analysis. The participants were selected through convenience sampling before conducting the interviews. Nine participants from three boutiques (three participants per boutique) were selected. The participants are business owners and supervisors within SMMEs in Cape Town.

The main themes emerging from this study are:

- Theme 1: Psychological—well-being and COVID-19 pandemic
- Theme 2: Social—customer interaction and social support

- Theme 3: Economic— loss of clientele owing to load-shedding; loss of production and load-shedding; lost hours owing to load-shedding

Theme 1: Psychological focus, refers to how load-shedding affected each participant psychologically—their well-being and mental health. Participants indicated that psychologically, they were affected immensely. Several Participants experienced stress, anxiety, and insomnia; however, participants suggested a hint of hope throughout their tones, indicating their resilience to continue and progress.

Theme 2: Social focus refers to how each participant received social interaction and how it was affected by load-shedding. For example, the decrease in customer-facing interactions, family or colleague support, customer support, and a loyal clientele created a huge positive in this negative.

Theme 3: Economic focus, refers to how each participant was economically affected by load-shedding. The findings provided the participants were highly affected as they experienced a plunge in turnover and income, loss of productivity, loss of clientele, and not affording alternatives. The main observation was that most experienced a sense of loss and were unaware of how their tones changed when the questions were directed.

Each theme presented with the findings is also discussed with the theoretical framework in Chapter 2—Maslow's hierarchy of needs. This provides further insight into how each participant's needs were affected by a theoretical observation.

5.3 Discussion of Findings

5.3.1 How small, medium, and micro enterprise employees perceive the psychological impact of load-shedding in their business

The results were perceived as a negative psychological impact on participants. Participants mentioned several issues regarding their well-being, including:

- Stress – according to Scott (2022), stress can be defined as any change that causes physical, emotional, or psychological strain
- Anxiety: according to Felman (2020), anxiety disorders form a category of mental health diagnoses leading to excessive nervousness, fear, apprehension, and worry
- Insomnia: according to Vanbuskrik (2020), insomnia is a common sleep disorder. Unrelenting conditions can impact sleep in multiple ways, including difficulty falling asleep and staying asleep
- Depression: according to Goldman (2019), depression is a mood disorder involving a persistent feeling of sadness and loss of interest

Participants echoed the idea of how load-shedding not only causes anxiety and depression, but a lack of trust in the government. “Anxiety and depression seem to be the new norm in clinical practice but aside from the obvious socio-economic and political stresses surrounding load-shedding, there may be biological reasons behind why being in the dark is making everyone more stressed and depressed” (Lownie, 2020). The inability to rely on the government for a basic human need brought sadness to these participants and several other SMMEs researched.

Some participants experienced fear and stress owing to not being informed when load-shedding may occur even with the schedules provided by the government, as load-shedding is unpredictable. This is supported by Lownie (2020) where the fear of unawareness of load-shedding as Eskom does not always abide by their schedule, including a lack of planning, creates undue stress and frustration. Individuals must start re-planning and ensure deadlines

are met by working around this disruption (Lownie, 2020); however, findings suggest some participants are mentally strong and improvised; for example, Participant 4:

> "Depends on the person, I am a very strong person, I motivate yourself, load-shedding hasn't affected me I work around it. I have coped well, but there is anxiety of not making monthly revenue" (Participant 4, female, business owner).

They remarked that since load-shedding has endured for a prolonged period, expecting it not to return is unrealistic; the participant is preparing for the future by exploring saving for alternatives, such as generators or UPSes.

Not being supported by a basic need can cause depression and anxiety in a person (Seymour, 2020). Participants further indicated that they endeavoured to remain strong with their situation and just attempt to plan around load-shedding. This also links with the theoretical framework, as participants' safety need was obstructed by depression and anxiety about their situation. This could have created a sense of being insecure and unsure of what will happen.

Load-shedding affected participants psychologically; however, the findings suggest the participants are coping or are at least trying to maintain stability within themselves to keep their businesses going.

5.3.2 How small, medium, and micro enterprise employees perceive the social impact of load-shedding in their business

According to the findings, load-shedding affected most participants socially. What was common among the participants were:

- Having no to little interaction. According to Collins (2022), this means not being interactive or not involving interaction
- Decreasing customers. According to Amaresan (2021), a decrease in customers or customer churn is the percentage of customers that stopped using a company's product or service during a certain period
- Customer support. According to Oracle (2022), customer support or loyalty refers to an ongoing emotional relationship between a business owner and a customer

- Family support: According to Duford (2016), a familial support system is an immediate or extended family member supporting an individual through life
- Colleague support. According to (2022), a supportive colleague is not about taking on additional work on behalf of others, it is about offering guidance, advice, and inspiration to those who need it

The participants remarked that, owing to load-shedding and the pandemic, the clientele decreased. These customers were reluctant to visit the shop owing to the COVID-19 pandemic, or they did not want to shop in the dark. Another barrier to the decrease in customers was not paying with their cards. Many individuals do not carry cash, as it is safer to use a card; therefore, customers entered and left immediately when discovering they cannot pay with a card, according to the participants.

The participants indicated that some of their customers continued to visit; the participants used the term 'loyal', indicating that, even though the social aspect decreased, they maintained some parts during this load-shedding crisis. Participants further commented that owing to their areas, they had locals from the neighbourhood offering to frequent their business; therefore, the business environment is vital, especially when providing for the needs of the environment. According to Engel (1997), the psychosocial in businesses refers to the interactions among employees and their work environment, job content, organisational conditions, and culture.

According to the participants, the function of foot traffic is also crucial in creating new interactions and relationships. Participants remarked that, because of their business area, they experienced high volumes of foot traffic. Research suggests this was to the participants' advantage, as several were bored during load-shedding. Wandering around the neighbourhood, even though the boutique was experiencing load-shedding, appeared to be an advantage from a business perspective as this brought the customer into their store.

Participants also stated that during load-shedding, some garments were not prepared by the deadline. This caused a decrease in customers, therefore, became uncertain about whether their garments would be delivered on time.

Conversely, some participants indicated they were not affected much regarding social interactions as their card facility worked during times of load-shedding and people could still shop; they used natural sunlight to their advantage with customers visiting the shop and observing items within the boutique. The function of natural light and preparing for load-shedding by having the card machines charged, therefore, proved vital and effective.

Participants seemed confident with their loyal clientele and maintaining thereof. This can be identified as the safety level in Maslow's hierarchy of needs (1943). Participants feel safe and secure knowing they have a loyal customer base, who understands their situation. It also falls under the need for belonging and love as participants depend highly on their loyal customers, creating bonds. Having this loyalty can create a sense of belonging and love. Participants remarked that they have known their customers for several years and developed personal relationships. They established good friendships, supporting a steady clientele. Another factor was understanding customers. This aided the participants by producing garments beyond their deadlines, but having the customers understand in this respect as they knew the delay was owing to load-shedding.

Another aspect remarked by the participants was family and colleague support. The participants relied on their colleagues and their spouses during a crisis. This may suggest that load-shedding could have allowed for deeper connections between the participant and their colleague or spouses, while needing their support and understanding to overcome the load-shedding challenges.

Even though some participants perceived a harmful impact on social interaction, other participants shared positive outcomes, such as forming deeper connections with their colleagues/spouses, being introduced to a new clientele, understanding their local neighbourhood needs better rather than the masses, and maintaining their loyal customers.

To support this, Participant 1 and Participant 8 remarked:

> "Currently we are a new business with a small client base. We are just over 2 years old and started in January 2020 just before the pandemic hit us. So, I would say yes my clientele

has been impacted but we do have a loyal client base which has helped immensely" (Participant 1, female, business co-owner).

"With us having the boutique, we see quite regular customers. They have been loyal and understanding most of the time so the only negative I could say here is having to delay orders or reduce some" (Participant 8, female, business co-owner).

5.3.3 How small, medium, and micro enterprise employees perceive the economic impact of load-shedding in their business

According to the participants, the economic impact was the highest ranked among those emerging from the load-shedding crisis. The main aspects emphasised were:

- Less revenue – according to Marquis (2022), revenue loss refers to when a company makes less from operations than expected owing to external or internal factors
- Power alternatives – according to Inspire Clean Energy (2022), alternative energy or power refers to energy sources other than fossil fuels and includes all renewable and nuclear energy sources
- Less productivity – according to Kokemuller (2017), low or less productivity in the workplace refers to a condition where one or more workers complete tasks, processes, production or sales inefficiently
- Not paying employees – according to Bragg (2022), unpaid wages are the earnings of employees not yet paid by the employer

The research findings provide a consensus with participants agreeing on the above aspects. Participants remarked that the main aspect was the loss of revenue. According to Mokwena (2021), several small businesses or SMMEs warn that their survival is at risk owing to the double blow of the COVID-19 pandemic and load-shedding, especially since several cannot afford power alternatives.

The findings suggest participants cannot afford power alternatives owing to the prohibitive cost of obtaining such items, such as generators or UPS systems. The choice to obtain a power alternative is limited. According to Seinker (2019a), small businesses cannot afford power alternatives.

Participants echoed doubts about their future dealings, attempting to plan; it has become difficult to save money when it must be used for everyday business expenses, such as salaries, resources, and maintaining machinery.

The findings also suggested that economic impact was the most difficult for all participants. Several struggled to voice their answers and shed tears during questioning. The researcher calmed the situation. This research exposed the realisation of how massive the burden of load-shedding was on SMMEs.

Participants remarked that even though they had work orders and that the pace improved, productivity did not increase owing to load-shedding. This resulted in participants having to reject or turn down customers as they could not meet their deadlines, proving to be detrimental economically. The extent to which several hours participants experienced load-shedding was around 10 to 12 hours a week, which is more than a normal working day. This also agrees with the psychological needs within Maslow's hierarchy. Economic welfare can also be a psychological need as, without an income, participants cannot buy food, water or shelter.

Several participants had to endure a wage reduction to cover their business needs. This also affected several employees as employers could not pay staff owing to reduced working hours. This was conducted to ensure that everyone retained their jobs. According to Mkhabela (2022), several small business owners reported an inability to pay their employees during times of power outages, causing some to close their businesses during load-shedding times.

Another aspect that came forward was job security. Participants indicated that to maintain their jobs, they had to bring less income home. This is not an ideal situation, but the fear of being unemployed seemed even more fearful than a wage reduction in modern-day South Africa. According to SACCI (2022), load-shedding costs the country R17 million loss per hour. The chamber, representing over 20 000 small- and medium-sized businesses, warned that companies are struggling with power cuts and additional job losses.

A conclusion can be drawn that participants feel the economic impact of load-shedding, according to several other businesses and prior research observed in Chapter 2. Participants

are venturing to safeguard their business by planning, but time is money and load-shedding causes much detriment, leading to many businesses closing down.

5.3.4 How selected small, medium, and micro enterprises coped with the load-shedding challenges

What impact do you think load-shedding had on businesses in Cape Town? What will you do if load-shedding continues for another 10 years? was the final question directed.

Most participants remarked that they were planning to purchase power alternatives. This shows the sense of hope and drives in the participants where, if they can observe the future, they can cope with the load-shedding challenges.

The participants implemented cost-free alternatives to cope. This includes planning around the government load-shedding schedules of the electricity provider— Eskom. They also used a popular South African app called EskomSePush. The participants have, therefore, been able to work around load-shedding even though it has negatively affected their businesses. Staying afloat and making concessions is a crucial feature of a good businessperson.

Coping with load-shedding is not just narrowed down to planning but also using the current circumstance, such as maintaining a customer base, and maintaining finances, to cover all aspects of the business to keep it running while remaining mentally healthy. Even though participants are affected in all areas, it could be much worse. They act more effectively than most SMMEs in Cape Town.

According to Charles (2020), over 90% of SMMEs are dealing with a cash flow crisis. Load-shedding will prevent significant SMMEs from trading, causing increased business closures and job losses. The participants are coping with their current situations, as they are still operating within the load-shedding crisis and COVID-19. Concerning the theoretical framework emphasised in Chapter 2, it can be identified from these findings that the need for self-actualisation was not met. Owing to the impact of load-shedding and loss of time, production, and income, participants were not reaching the full potential of their business and restricted the growth as they had to minimise production. The need for esteem could

have been tarnished owing to non-understanding customers, therefore, their brands lost prestige with the public owing to discontented individuals.

A conclusion can be drawn that participants can cope with the effects of load-shedding, working around the crisis to keep their businesses operating. The question is: for how long, though—how long can they cope as South Africa's economy is in a recession?

5.4. Implications of the Theory

5.4.1 Maslow's Hierarchy of Needs

In this study, the theoretical framework provided understanding of how load shedding had affected each individual that participated. The research now seeks to address the implications of this theory and how each level of Malow's Hierarchy of Needs was affected.

The 5 levels of Maslow's Hierarchy of Needs:

Level 1: Physiological needs

Each participant presented the lack of physiological needs. Their physiological needs were affected by the fact that an income was not coming in for most of them. Meaning that they could not fulfil their basic needs of food, water, warmth and rest.

> "This has resulted in me losing income, but it is keeping our business a float" (Participant 2, female, Business co-owner).

> "Loss in money has been a major problem so we all had to take salary cuts" (Participant 9, female, Supervisor).

Level 2: Safety needs

Participants perceived that their brands were being affected as customers would not come by or they were losing many due to the load shedding and the COVID-19 pandemic. Their safety needs being disrupted as their customers safeguards them and their brand as well as bringing in an income.

"Load shedding makes our customers not want to come by" (Participant 3, female, Business owner).

"Customers do not carry cash and this causes an issue as many leave and decided to come back later or not at all" (Participant 2, female, Business co-owner).

Level 3: Belongingness and love needs

Some participants perceived that their belongingness was impacted due to not being able to sell their products thus not being in the current market. It is perceived that this caused an impact on their sense of belonging as well as their love needs. Their passion for their business was being diminished due to the load shedding.

"As a business owner you also want to keep customers happy and get their order to them on time" (Participant 7, female, Business co-owner).

"Having friends in the Fashion industry, I know there are many of us suffering at the moment" (Participant 6, male, Business owner).

Level 4: Esteem needs

Participants perceived that many of them did not want to disappoint clients since orders could not be met due to the load shedding. They would only take on orders that they could accomplished leaving some customers having to wait for availability. The perception is that participant esteem needs were affected due to not being able to meet orders.

"We have become so swamped with orders but being unable to keep up we had to turn down some customers or ask for more time" (Participant 6, male, Business owner).

"At this point I take limited amount of orders just in case I cannot fulfil customer's wishes" (Participant 2, female, Business co-owner).

Level 5: Self-actualisation needs

Considering majority of participants could not produce their products, it had caused a dip in all of their needs. It is perceived that the need of fulfilment was impacted as they were not

able to fulfil customer orders or fulfil their business's potential by being able to produce and make customers happy.

> "Productivity has been slowed down due to the many hours of load shedding occurring. This causes me not to be able to sew or do much." (Participant 2, female, Business co-owner).

> "For my industry it's also quite difficult due to not being able to produce the products" (Participant 4, female, Business owner).

From the above discussion, it has been evident that each level of Maslow's Hierarchy of Needs was affected. Thus, the theoretical framework has provided more understanding as to how each participant was holistically affected due to the damages and disruptions of load shedding.

5.5 Limitations of the Study

The study was conducted during a challenging time in South Africa. The country was in a national lockdown, causing the researcher to find alternate ways to conduct the research. Qualitative research is based on participants' own experiences and the study was conducted among three SMMEs—clothing boutiques. The sample was small, and therefore, information cannot be generalised. Many limitations were uncontrollable. Because of time constraints, financial costs, and nationwide lockdown, the study was limited to SMMEs within the clothing industry in Cape Town in the Western Cape. The results can, therefore, not be generalised to all SMMEs.

The study used a method of convenience sampling. According to Farrokhi and Mahmoudi–Hamidabad (2012), the obvious disadvantage of convenience sampling is that it is inclined to be biased. According to Etikan, Musa, and Alkassim (2016), convenience sampling should not represent the population. Another issue related to convenience sampling is the problem of outliers. Attributable to the high self-selection possibility in non-probability sampling, the impact of outliers can be more devastating in this subject selection. According to Glen (2022) convenience sampling omits a large part of the population which can cause:

- The inability to generalise the results of the survey to the population
- The likelihood of under or over-representation of the population
- Biased results attributable to several participants

5.6. Recommendations

Various recommendations emerged from the research, discussed in two sections. This includes recommendations for SMMEs and for improving this study.

5.6.1 Recommendations for small, medium, and micro enterprises

According to the research findings and the literature provided in Chapter 2, various recommendations can be suggested to combat the load-shedding crisis. The most common recommendation is to obtain an alternative power source, such as a generator or a UPS. According to Seinker (2019b), solar energy is the direction to be taken for small business owners, pursuing long-term solutions to maintain their business, especially since technology is changing.

Another recommendation is the cloud (a global network of servers). Clothing boutiques require good administration systems, allowing them to manage their stock and keep track of customer orders; therefore, working on the cloud will allow for important documents to be accessible even during load-shedding. According to Bierman (2021), cloud solutions promote efficiency and eliminate the need for constant backups. SMMEs will, therefore, be able to ensure the safety of their data, with no losses during power outages.

SMMEs are recommended to find a shared office space. According to Simply (2019), while this may be an added expense to a small business, the hours you can make up for in productivity may be worth it if you can invest in a hot desk in a shared office space equipped with a generator. This means that even though more finances will realise this, the opportunity to retain productivity and meet deadlines is more precious while earning back funds and still generating an income.

Another recommendation is precipitating flexible working hours. The one advantage SMMEs have over large corporations is that they can regulate their working hours. According to Simply (2019), employers could also consider staff flexible work hours for their staff to complete tasks in their own time when power allows—if the business uses machinery, these could be used during the hours when the power is on and perform other tasks independent of electricity. This will allow for SMMEs to perform their day-to-day duties at separate times. Planning a business day around the load-shedding schedule may be recognised as the most inexpensive option for most.

5.7. Recommendation for further research

The current study was conducted in an area in Cape Town, therefore, for future research, the research should be expanded to other provinces within the country for comparison. It is recommended that for future research, a mixed method approach should be considered, involving quantitative methods. This can enhance the current research findings attributable to qualitative research being subjective. Further research can be conducted on the impact of load-shedding on other clothing boutiques or another SMME sector, as this could provide an SMME outlook to readers. Additional research should be conducted on how SMMEs can advance with the times of load-shedding and how they can adapt to their current situation, especially with advancing technology. The research should not only focus on the impact but also expand to technology, holding a positive function in combatting the load-shedding crisis.

This study was conducted during a severe time not only within South Africa but globally. COVID-19 restrictions caused several disruptions globally, resulting in each individual experiencing some effect, whether negative or positive. Further research after the pandemic may provide more insight into other aspects disregarded in the current study, potentially providing more information and responses to the research questions.

5.8. Conclusion

The study's main goal was to investigate the impact of load-shedding on employees in SMMEs, specifically clothing boutiques in Cape Town, South Africa. SMME businesses and SMME landlords are the key parties impacted by load-shedding and most South African

SMMEs cannot operate during load-shedding (Makgopa & Mpetsheni, 2022). This study aimed to provide ways that SMMEs could combat the crisis of load-shedding and emphasise the ongoing impact load-shedding is having on SMMEs. Considering Eskom's responsibility to supply electricity to all South Africans efficiently and effectively (Steenkamp et al., 2016), it is not efficiently equipped to meet those needs; therefore, load-shedding continues (2022).

According to Ketelhodt (2008), in a country such as South Africa where SMMEs are the major driver of economic growth, they need to be nurtured and their vulnerability reduced—a stable electricity supply is critical in this regard. From the research, load-shedding has an adversative impact on the psychological, social, and economic efficiency of South African SMEs.

According to the findings, several SMMEs have been struggling long before the COVID-19 pandemic and the crisis of load-shedding. Understanding business owners' 'cry for help' is valuable information to be shared as several today do not understand the extent of local businesses' suffering.

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APPENDIX A: INFORMATION SHEET

Department of Industrial Psychology

University of the Western Cape

Private Bag X17

Bellville

7535

Tel: 021 959 3184

INFORMATION SHEET FOR RESEARCH PARTICIPANTS (SURVEY OR SEMI-STRUCTURED INTERVIEW)

Dear participant,

I, Shaa'ista Banderker, am currently studying towards my Master's in Industrial Psychology at the University of the Western Cape (student number: 3684876). At present, I am busy with my thesis and would like to invite you to participate in the research.

The title of my thesis is:

THE PERCEIVED PSYCHOSOCIAL AND ECONOMIC IMPACT OF LOAD-SHEDDING ON EMPLOYEES IN SELECTED ORGANISATIONS

Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. Please take the time to read the following information carefully. Kindly advises me, as the researcher, if there is anything unclear or if you need more information.

1. PURPOSE OF THE STUDY

The purpose of the study is to determine the consequences of the psychosocial and economic impact of load-shedding on employees in selected organisations, and the various techniques and strategies that they have used to remain successful during these times. Based on this information an alternative strategy will be developed and implemented to aid the selected organisations in combatting the load-shedding and the impact it is having. By not participating in this strategy and approach, selected businesses in Cape Town will run into complications concerning how to manage load-shedding and their business.

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2. PROCEDURE

If you volunteer to participate in this study, you will either be invited to participate in a semi-structured interview (30-45 minutes) or a quick survey where you will be asked various questions with the aim of reflecting on your own experiences and observations to determine the following areas:

i) What psychological consequences, such as depression have you faced owing to load-shedding?
ii) What economic consequences, such as low income and revenue have you faced owing to load-shedding?; and
iii) Does your place of work/your business have any plans in place to combat load-shedding if it continues?

A copy of the semi-structured questions will be available to you before the interview/survey. The interview will be voice recorded.

Risks:

The risks of this study are minimal. These risks are similar to those you experience when disclosing work-related information to others. You may decline to answer any or all questions and you may terminate your involvement at any time if you choose. The data will only be used for research purposes and will not in any way inform any performance management or promotion decisions related to yourself or your colleagues.

Compensation and benefits:

There will be no compensation or direct benefits for participating in the research.

Confidentiality:

Any information obtained in connection with this study that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. The results of this study will be published in the form of a completed dissertation and an accredited journal(s), but confidentiality will be maintained. Participants' names will not be requested in the survey, nor published in any results.

Voluntary Participation:

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you do not want to answer and remain in the study. The researcher may withdraw you from this research if circumstances arise that warrant doing so.

This study received ethical clearance from the Human and Social Sciences Ethics Committee of the University of the Western Cape. They can be contacted at research-ethics@uwc.ac.za

Should you have any questions regarding this study or wish to report any problems you experienced related to the study, please contact me at the details listed below:

Researcher:	**Supervisors:**	**Head of Department:**
Shaa'ista Banderker	Mineshree Naidoo-Chetty	Prof. Bright Mahembe
Principal Researcher	Principal Researcher	Head of Department
Department of Industrial Psychology	Department of Industrial Psychology	Industrial Psychology
		EMS Faculty, UWC

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APPENDIX B: CONSENT FORM

CONSENT FORM

Title: **The perceived psychosocial and economic impact of load-shedding on employees in selected organisations**

Researcher: Shaa'ista Banderker (3684876)

Please respond to the following statements:		**X**
1.	I…… voluntarily agree to participate in this research. I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.	
2.	I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline. (If I wish to withdraw, I may contact the lead researcher at any time)	
3.	I understand my responses and personal data will be kept strictly confidential. I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the publications that result from the research	
4.	I agree for the data collected from me to be used in future research	

5.	I agree to take part in the above research project	
6.	I agree that a voice recording of the semi-structured interview for this study may be done	

_____ _____ _____

Name of participant Date Signature

(Or legal representative)

_____ _____ _____

Name of person taking consent Date Signature

(if different from the lead researcher)

_____ _____ _____

Lead researcher Date Signature

(To be signed and dated in the presence of the participant)

Student researcher:	Supervisors:	Head of Department:
Shaa'ista Banderker	Mineshree Naidoo-Chetty	Prof. Bright Mahembe
Master's Student	PhD Student	Tel: 021 959 3184
Tel: 079 106 3804	Tel: 083 772 7875	bmahembe@uwc.ac.za
3684876@myuwc.ac.za	minaidoo@uwc.ac.za	

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APPENDIX C: INTERVIEW GUIDE

Survey/Interview Guide

Title: **The perceived psychosocial and economic impact of load-shedding on employees in selected organisations**

3.1.1

Interviewee Details:
Name:
Title:
Gender:
Age:
Education Level:
Place of Work:

Questions to ask Interviewee

Question 1: How has load-shedding impacted your place of work/ your business? Why has this been the case, and why do think it has had such an impact?
Answer:
Question 2: What economic consequences (income, revenue) have load-shedding had on you and your place of work/ your business?
Answer:
Question 3: Has there been a social impact (e.g. customer-facing interactions) that load-shedding had on you and your place of work/ your business
Answer:
Question 4: Have there been any psychological consequences such as depression and anxiety has load-shedding had on you and your place of work/ your business?
Answer:

Question 5: If load-shedding continues, are there any plans that your organisation is considering or has already put into place so that your organisation is not affected as much?
Answer:
Question 6: What are the cost implications if there were alternate measures considered to assist with load-shedding?
Answer:
Question 7: Based on the fact that you rely on clientele to ensure a successful business, how has load-shedding impacted said "clientele" Please motivate
Answer:
Question 8: What impact do you think load-shedding had on businesses in Cape Town? What will you do if load-shedding continues for another 10 years?
Answer:

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APPENDIX D: ETHICS CLEARANCE CERTIFICATE

17 September 2021

Ms S Banderker
Industrial Psychology

Faculty of Economic and Management Sciences

HSSREC Reference Number:	HS21/7/40
Project Title:	The perceived psychosocial and economic impact of load-shedding on employees in selected SMMEs.
Approval Period:	16 September 2021 – 16 September 2024

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I hereby certify that the Humanities and Social Science Research Ethics Committeeof the University of the Western Cape approved the methodology and ethics of the above-mentioned research project.

Any amendments, extensions or other modifications to the protocol must be submitted to theEthics Committee for approval.

Please remember to submit a progress report by 30 November annually for the duration of the project.

The permission to conduct the study must be submitted to HSSREC for record- keepingpurposes.

The Committee must be informed of any serious adverse events and termination of thestudy.

Ms Patricia Josias

Research Ethics Committee Officer University of the Western Cape

Director: Research DevelopmentUniversity of the Western Cape

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NHREC Registration Number: HSSREC-130416-049