SERVICE QUALITY AT DURBAN UNIVERSITY OF TECHNOLOGY, CENTRE FOR SOCIAL ENTREPRENEURSHIP RAPID INCUBATOR

by

SOLOMON NYAMURIMA

STUDENT NUMBER

22176200

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SUPERVISOR:

PROFESSOR MANDUTH RAMCHANDER (D.COM)

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ABSTRACT

Business incubators have emerged as crucial mechanisms for fostering entrepreneurship and propelling global economic growth. These programmes provide aspiring entrepreneurs with essential resources, mentoring, and support services in order to facilitate the creation and launch of successful businesses. As a consequence, business incubators have become essential components of government agencies, particularly those with a primary focus on entrepreneurship.

The study aims to assess the quality of service provided by the Durban University of Technology Centre for Social Entrepreneurship Rapid Incubator (DUT CSERI). The SERVQUAL questionnaire was used to assess the expectations and perceptions of SMMEs in relation to five quality dimensions. Non-probability sampling and convenience sampling were utilised to select 330 SMMEs affiliated with the DUT CSERI. Inferential and descriptive statistical analyses were utilised to assess the quality provided by the DUT CSERI.

This study revealed that the DUT CSERI provides SMMEs with exceptional service quality. This is evidenced by the fact that SMME's perceptions of service quality exceeded their expectations. However, there is room for continuous improvement, as five out of twenty-two service quality gaps were successfully identified. It is recommended that CSERI improve its tangibility and reliability service quality dimensions.

Keywords: Service, Service quality, Business incubation, Business development services, SMMEs

DECLARATION

I, Solomon Nyamurima, hereby declare that this mini-dissertation is original, and that all the contents are appropriately acknowledged and explicitly referenced. A bibliography is appended to the thesis. Furthermore, it represents my own opinions and not necessarily those of the Durban University of Technology.

I also certify that the thesis has not heretofore been submitted in any of its parts or entirety for a degree of Master of Business Administration (MBA) in any other institution of higher learning, locally or internationally.

I hereby give permission for my work to be available for photocopying and/or re-printing, for inter-library loan, and for the title and abstract of this thesis to be made available to other educational institutions and students.

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Solomon Nyamurima 22176200 15 June 2023

STUDENT NAME NUMBER DATE

Supervisor: M.Ramchander 15 August 2023

DEDICATION

This thesis is dedicated to my family. I extend my sincere appreciation for the unwavering dedication, support, and prayers you have bestowed upon me throughout this journey. Your profound influence and encouragement have been instrumental in enabling me to accomplish the goals I set forth. I am deeply honoured and privileged to have such an exceptional family. Your prayers, unwavering encouragement, and unwavering moral support have been invaluable to my success. I wholeheartedly acknowledge that this milestone would not have been possible without your unwavering presence and guidance. You have served as my unwavering pillar of strength, and I will forever be grateful for the immeasurable love and support you have showered upon me.

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Throughout the voyage of life, we encounter numerous trials that have the potential to shatter our spirits. Nevertheless, it is through resilience and grace that we find the strength to overcome these hurdles. It is with utmost gratitude and reverence that I acknowledge the giver and sustainer of life, Almighty God in heaven, for bestowing upon me good health, guidance, and divine grace throughout my academic journey.

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LIST OF ABBREVIATIONS

BDS	Business development services
BIs	Business Incubators
CSERI	Centre for Social Entrepreneurship Rapid Incubator
DUT CSERI	Durban University of Technology Centre for Social Entrepreneurship Rapid Incubator
DUT	Durban University of Technology
R&D	Research and development
SEDA	Small Enterprise Development Agency
SMMEs	Small Medium and Micro-Enterprises

Chapter 1: Overview

1.1 Introduction

Business incubators have emerged as crucial tools for fostering entrepreneurship and driving global economic development. These programmes provide vital tools, mentorship, and support services to aspiring entrepreneurs in order to enable the creation and launch of successful firms. As a result, business incubators have become essential components of educational institutions, especially those that place a significant focus on entrepreneurship.

The purpose of this study is to investigate the service quality at DUT CSERI. The primary objectives include evaluating the quality of CSERI's services and identifying areas for improvement and strength in their service delivery. The results of this study will contribute to the current body of knowledge on service quality in business incubators and provide significant insights for improving CSERI's offerings.

This chapter contextualises the research, explicates the problem statement, details the aim and objectives, and presents the rationale for the study. A summary of the methodology, limitations and delimitations follows, concluding the chapter with the structure of this study.

1.2 Context of the research

The Durban University of Technology (DUT) is a premier institution in South Africa, offering entrepreneurship programmes to its students and the greater community. The Centre for Social Entrepreneurship Rapid Incubator (CSERI), one of its products, was founded in April 2015 to encourage the development of social and non-social businesses in the Durban area. CSERI provides entrepreneurs with a variety of services, including business development support, mentorship, business coaching, office space, and networking opportunities.

While business incubators play an important role in the development of start-ups, there have been questions raised about the quality of services given by these incubators (Torun *et al.* 2018). The effectiveness of these programmes is dependent on the quality

of services provided, which has a substantial impact on the incubation process's outcomes (Sultana and Gupta 2020). As a result, it is critical to evaluate the service quality provided by business incubators, with a focus on the South African setting.

The purpose of this research study is to evaluate the service quality at the DUT CSERI. Business incubators play an important role in fostering entrepreneurship and enhancing economic growth. It is, therefore, essential to assess the quality of the services they provide. The aim is to identify the SMMEs' service quality expectations and compare them with their service quality perceptions after they have used CSERI services. Service quality gaps that will be identified will aid in improving CSERI service offerings, thereby improving the sustainability of both the incubator and SMMEs. The study aims to propose recommendations for improving CSERI's service quality and, ultimately, the overall service quality of South African business incubators, thereby promoting the success of entrepreneurial initiatives in the South African entrepreneurial ecosystem.

1.3 Problem statement

Business incubators have attracted considerable attention in recent years as a tool for enhancing entrepreneurship and economic growth (Madlala 2018), but there has been little research into service quality in the context of these programmes, particularly in the South African setting. This concurs with what Lose (2019) discovered in his study entitled: Framework for the Effective Creation of Business Incubators in South Africa. Service quality is crucial to the success of incubation programmes and can have a substantial impact on business start-up prospects.

The DUT CSERI is a business development programme that promotes the development of socially conscious and ethically responsible entrepreneurs in the Durban area. However, no empirical research has been undertaken to date to investigate the quality of services provided by CSERI, and there is a need to identify their service quality gaps.

Thus, the problem statement for this study arises from the lack of empirical evidence pertaining to the service quality of business incubators in South Africa in general and more specifically with reference to the DUT CSERI.

1.4 Aim and objectives

1.4.1 Aim of the study

The aim of this research study is to assess the service quality of DUT CSERI.

1.4.2 Objectives of the study

The following objectives have been set to achieve the study's aim:

i. To determine SMMEs' expectations of service quality,
ii. To determine SMMEs' perceptions of service quality,
iii. To identify gaps in service quality at DUT CSERI.

1.4.3 Research Questions

The study aims to answer the following research questions:

i. What are the service quality expectations of SMMEs?
ii. What are the perceptions of service quality among SMMEs?
iii. What are the service quality gaps at DUT CSERI?

1.5 Rationale for the study

Over the last eight years, DUT CSERI has experienced remarkable success and growth as a rapid business incubator. It has established 187 SMMEs, created 423 jobs, supported 924 SMMEs, trained 5 268 youth, raised more than R13 million in funds for SMMEs, and generated nearly 400 million rands in turnover (CSERI, 2023). However, as the business incubation sector grows and competition intensifies, it is critical to analyse and assess the quality of services provided by DUT CSERI.

The growing number of business incubators, the high failure rate of startup businesses, limited financial resources, COVID-19 challenges, and technological advancements have put significant pressure on business incubators to deliver superior service quality in order to remain relevant and effective (Hausberg and Korreck 2021). As a result, it is critical to examine the degree of service quality at DUT CSERI in order to identify any shortcomings and improve overall service delivery.

This research is critical in assisting incubators to adapt their value proposition to fit in with developing entrepreneurial ecosystem paradigms. DUT CSERI can improve customer satisfaction and loyalty while enhancing its competitiveness in the industry by constantly monitoring service quality and utilising incubatee feedback. The research will help to advance scholarly scientific knowledge of service quality and customer service, ultimately ensuring service quality assurance in business incubators.

Overall, the purpose of this research is to provide valuable insights to DUT CSERI and other incubators, allowing them to improve their service quality and satisfy the changing demands of entrepreneurs in an increasingly competitive and dynamic business climate.

1.6 Research methodology

1.6.1 Research design

The current study is a quantitative and descriptive study that assesses the quality of service at DUT CSERI. The study employed a cross-sectional methodology, which involved gathering data from any specified sample of population elements at roughly the same time (Godeiro *et al.* 2018). The research study used a quantitative research method because the questions focused on measuring the level of service quality provided by DUT CSERI. For example, the study attempted to assess SMMEs' satisfaction with various dimensions of the service quality provided, such as responsiveness, reliability, empathy, assurance, and tangibility.

1.6.2 Target population

DUT CSERI has a population of 924 SMMEs in its database. These SMMEs include all businesses, in incubation regardless of stage or level. The target population was defined as all current SMMEs enrolled at DUT CSERI. The inclusion criteria for the study population included SMMEs who are currently enrolled at DUT CSERI and SMMEs who have used the services provided by DUT CSERI. The exclusion criteria included SMMEs who had not used the services provided by DUT CSERI.

1.6.3 Sampling method

The researcher employed non-probability sampling despite the availability of a sampling framework. The choice was made because of the anticipated difficulties in locating individual responses. The use of non-probability sampling has the benefit of being more straightforward in terms of time and more affordable (Buelens, Burger and van den Brakel 2018). Non-probability sampling, like convenience sampling, can be conducted on a spontaneous basis to make use of reachable respondents while avoiding the statistical complexity of a probability sample. It is also the best approach to use for the survey method. Convenience sampling is based on factors that are convenient to the researcher, such as respondents who are existing contacts, are easily accessible are geographically nearby, and are prepared to take part in the study (Govender 2017). This study's sample size was determined using a power analysis, which took into account aspects such as effect size, level of significance, and desired level of statistical power.

The DUT CSERI has approximately 200 SMMEs in incubation plus 724 in post-incubation, which is equal to 924 SMMEs in the total population. An ideal sample size of 272 SMMEs with an expected response rate of 80% was calculated using the power analysis formula, and 340 SMMEs were targeted.

1.6.4 Measuring instrument

This study will use a self-administered survey that will be disseminated to all individuals affiliated with the DUT CSERI. A questionnaire containing the SERVQUAL metrics measurements is an existing instrument that will be utilised to capture the information (Kumar and Mahajan 2019).

1.6.5 Data collection method

A Survey Monkey was used to collect data from the respondents. This is a cloud-based survey tool that assists academics in the creation, distribution, and analysis of surveys. A non-probability sampling technique was used to recruit and select SMMEs who participated in the research study. Emails were sent to respondents in the DUT CSERI database. The SERVQUAL questionnaire was uploaded onto Survey Monkey in order

to be distributed to the respondents. It took no more than 10 minutes to complete the SERVQUAL questionnaire. The respondents were reminded on a regular basis to return the questionnaire.

1.6.6 Data analysis

This is a quantitative study, and the data will be analysed using the SPSS statistical tool (version 29), as well as the relevant statistical tests. An analysis of the content will be carried out to derive meaning from the collected data.

1.6.7 Pretesting

The researcher pre-tested the instruments that were utilised to collect data to ensure that they were clear and concise and did not have any irregularities. This strengthened the validity and reliability of all instruments utilised. Approximately 10% of the sample size of respondents participated in the Pre-test. These respondents did not take part in the main study in order to avoid contamination of the results.

1.6.8 Validity and reliability

According to Flake *et al.* (2022), validity measurement is a starting point for insight into the complex issues of investigation in research. Validity in research is important as it is associated with the generalisation of the research findings (Lomendra *et al.* 2019; Maxwell 2021). An academic in the field, a practitioner, and a statistician were used to ensure validity was achieved. Forero *et al.* (2018) assert that reliability is centred on the consistency of the research study’s measure and the standardisation of the study administration in order to minimise measurement error. The reliability of this study was ensured by targeting a minimum Cronbach's Alpha value of 0.8 (Shorfuzzaman *et al.* 2019).

1.7 Delimitation of the study

The scope of this research study is restricted to the DUT CSERI. The study will evaluate the quality of CSERI's services from the perspective of its associated entrepreneurs. The following areas will be explicitly investigated in the study:

i. The elements of service quality that are relevant to CSERI as defined by the literature review.
ii. The incubator's affiliated entrepreneurs' perceptions of the quality of services supplied.
iii. The data-driven identification of CSERI's service quality gaps.
iv. Recommendations aimed at improving the quality of CSERI services based on the findings of the study.

The study did not consider other business incubators in South Africa or elsewhere. It also did not consider CSERI's broader socioeconomic factors. The focus of the study was to evaluate the quality of services provided by CSERI and make recommendations for improving service delivery at the incubator.

1.8 Limitations of the study

The following limitations may have an impact on the generalisability and reliability of the findings in this study:

i. This study will focus on SMMEs affiliated with CSERI. Thus, the sample size may be limited. As a result, the findings may not be indicative of other South African or international business incubators.
ii. The study is based on information provided by entrepreneurs. As a result, there could be bias or discrepancies in the responses, affecting the dependability of the conclusions.
iii. The study is limited to a single case study of the CSERI. As a result, the findings may not be applicable to other South African or international business incubators.
iv. The study is cross-sectional in nature; data will be collected at a particular moment in time. As a result, the study cannot analyse changes in the quality of CSERI's services over time.
v. The study will rely on subjective opinions and perceptions of CSERI's service quality. These perceptions may differ based on individual experiences and expectations, which might impact the findings' reliability.

Notwithstanding these limitations, this study provides valuable insights into the quality of services given by CSERI and can contribute to the current literature on service quality in business incubators.

1.9 Ethical considerations

To avoid any potential conflicts of interest, the researcher signed papers declaring economic interests prior to the start of this project. A consent form in basic English was created for the questionnaire. The aim of the study and why the respondents were chosen to participate were also discussed, providing them with a clear sense of what to expect, as well as any benefits to them. Respondents were guaranteed the findings' confidentiality. The right of respondents to withdraw from the study at any moment was clarified and highlighted. All dangers associated with this study, whether financial, psychological, or social in origin, were highlighted in advance. All precautions were taken to guarantee that no one suffers bodily injury as a result of this research.

Data Storage

Data captured during the research will be safeguarded and destroyed in a way that ensures the respondent's confidentiality. Questionnaires will be retained in secure storage for five years before being shredded, and electronic information will be kept for five years before being removed. Electronic data will be saved on password-protected drives that will be locked in a safe location to which only approved individuals will have access.

1.10 Structure of the study chapters

Chapter 1: This chapter introduces and contextualises the research. This part outlines the study's objectives and goals, as well as questions about the study. This chapter also contains a brief summary and contextual analysis of the research, as well as its context and background.

Chapter 2: The literature review covers the conceptual and theoretical framework of the study. This provides an in-depth review of the literature on service quality in business incubators. It emphasises the essential concepts, theories, and frameworks associated with service quality and all of its components. The chapter also examines

the available research on business incubators and their role in entrepreneurship support.

Chapter 3: The research methodology describes how the data for the study will be collected using SERVQUAL questionnaires. This chapter covers the study's strategy, data collection methods, data analysis, and ethical considerations. It also justifies the approach used and discusses the sample selection and data analysis techniques.

Chapter 4: The data analysis and findings presentation chapter covers the descriptive analysis of the survey and interview data. The findings are presented with respect to the research objectives and questions. This chapter also interprets the findings, connecting them to the literature review and the study objectives. The discussion critically assesses the findings and emphasises the strengths and flaws of CSERI's service quality.

Chapter 5: The recommendations and conclusions chapter summarises the important results, limitations, and implications for practice and future research from the study. Based on the findings of the study, it also presents actionable recommendations for increasing the quality of services provided by CSERI.

1.11 Conclusion

Business incubators have emerged as crucial tools for fostering entrepreneurship and driving global economic development. These incubators provided vital tools, mentorship, and support services to aspiring entrepreneurs in order to enable the creation and launch of successful firms. As a result, business incubators have become essential components of educational institutions, especially those that place a significant focus on entrepreneurship. This chapter contextualised the research, clarified the problem statement, the aim and objectives, and presented the rationale for the study. Chapter 2 will continue with a comprehensive literature review on service quality and investigate existing studies, theories, and models on service quality in the context of business incubators.

Chapter 2: Literature Review

2.1 Introduction

The preceding chapter provided an overview of the research study's purpose in investigating service quality at DUT CSERI. This chapter provides an in-depth literature review covering several aspects of the research problem. The literature review will explore the role of government in SMME development, the concept of business incubation, and a brief history of DUT CSERI. It will also look at the concept of service quality, the dimensions and measurement of service quality, and key models like SERVQUAL and the quality gap model. The chapter concludes by emphasising the benefits of service quality and how it contributes to customer satisfaction. This comprehensive review of the literature serves as a foundation for future chapters and leads to a deeper comprehension of service quality at DUT CSERI.

2.2 Government role in SMME development

Governments around the world have adopted a variety of policies and incentives to encourage the growth and sustainability of small businesses (Songling *et al.* 2018). Similarly, particular organisations are established in countries such as Pakistan to stimulate entrepreneurship through the design of policies related to SMMEs and the facilitation of access to funding (Ali 2018). While governments are not directly responsible for the creation and operation of businesses, they do have a responsibility to provide an optimal environment for entrepreneurial activity (Surana, Singh and Sagar 2020). This entails enacting legislation and rules that streamline the process of starting and running a business while reducing bureaucratic barriers (Urbano, Aparicio and Audretsch 2019; Thurik *et al.* 2023).

Tax policies that affect the profitability of small businesses through income exemptions, for example, can have a considerable impact on market concentration (Hall and Woodward 2010). Furthermore, selective subsidies have the ability to modify the market structure, which could contribute to the elimination of efficient businesses that do not get subsidies (Aghion *et al.* 2019). As a result, government assistance programmes must be well-informed and context-specific in order to improve the

performance of small businesses without negatively impacting other market participants (Hall and Woodward 2010).

SMMEs' growth or collapse is influenced by a country's governance and its legislative systems (Wen *et al.* 2023). SMMEs frequently require government interventions to solve social ills such as fraud, exploitation, lack of know-how and critical expertise (Afolabi *et al.* 2022). Several countries have developed incubation centres that provide entrepreneurs with tailored business development services like administrative and financial assistance (Ahmed *et al.* 2020). However, such support can cause market distortions, which can be beneficial if the supported businesses are efficient or detrimental if they are not (Aghion *et al.* 2019). The aforementioned scenario might be harmful in the long run since aided SMMEs may temporarily boost their prospective efficiency, displacing efficient firms that are not receiving similar support and lowering overall productivity.

To address these issues, government assistance should be evidence-based and take into account the diversity and complexity of the small business sector (Urbano, Aparicio and Audretsch 2019; Thurik *et al.* 2023). Recognising that various businesses have diverse needs, government interventions and policies should avoid a "one-size-fits-all" approach and instead cater to the diversity of small businesses (Thurik *et al.* 2023). It is essential to provide assistance in a way that avoids creating undesirable externalities and jeopardising the future of other businesses that do not have access to the same assistance (Hall and Woodward 2010). Surprisingly, research indicates that businesses that are self-funded are more profitable and sustainable than those relying on government grants, implying that financial grants may create dependence syndrome by deterring innovation and encouraging reliance on government support for operations (Aghion *et al.* 2019).

Thus, effective government support programmes for small businesses require a nuanced understanding of the sector, tailored interventions that account for business diversity, and a careful balance to avoid unintended negative consequences (Hall and Woodward 2010; Urbano, Aparicio and Audretsch 2019; Thurik *et al.* 2023).

2.3 South African Government policy initiatives

The government of South Africa implemented a variety of policies, strategies, and programmes to promote the growth and success of SMMEs (Ouma-Mugabe, Chan and Marais 2021). These efforts seek to stimulate economic growth, create jobs, and alleviate poverty (Abrahams 2018). Despite these efforts, SMMEs have yet to realise their full development potential (Yu 2017).

The Small Enterprise Development Agency (SEDA) was established by the government in 2004 under the National Business Amendment Act (Hewitt and Van Rensburg 2020). SEDA was established to give non-financial assistance to SMMEs, such as assistance with crafting business strategies, and the creation and implementation of development plans (Botha *et al.* 2021). Other organisations that assist SMME owners include the Technology Innovation Agency (TIA), the National Youth Development Agency (NYDA), and the Micro-Agricultural Financial Institution of South Africa (Ndayizigamiye and Khoase 2018).

The government further established the Small Enterprise Finance Agency (SEFA) in 2012 to facilitate small business lending by combining numerous existing financial institutions (Tala 2021). In addition, in 2014, the Department of Small Business Development (DSBD) was established, which combined multiple entities to create a comprehensive strategy for the growth and development of SMMEs and cooperatives (Mnguni 2018). Through legislative and economic policies, the ministry was tasked with improving SMMEs' access to infrastructure, energy, and related assistance initiatives (Mnguni 2018).

According to Chandra, Paul and Chavan (2020), the survival rate of SMMEs in South Africa remains low despite these government efforts. South Africans are hopeful about beginning their own enterprises and believe they have the requisite skills and experience (Chandra, Paul and Chavan 2020). Nonetheless, hurdles remain in the development of an effective entrepreneurial ecosystem (Neumeyer, Santos and Morris 2019).

This current study investigated service quality at DUT CSERI in the context of government initiatives and challenges faced by SMMEs. Understanding the quality of

services given by business incubators such as CSERI is critical for addressing high SMME failure rates and enhancing the support system (Neumeyer, Santos and Morris 2019). Policymakers and stakeholders can acquire significant insights from this study in order to improve the support ecosystem and promote the development and prosperity of SMMEs in South Africa.

Furthermore, investigating service quality at DUT CSERI will add to the existing literature on business incubators and their role in assisting SMMEs. Entrepreneurs benefit from a variety of services provided by business incubators, including coaching, networking opportunities, and access to capital (A'Aqoulah, Kuyini and Albalas 2022). The quality of these incubators' services can have a major impact on the success and survival of SMMEs (Akpoviroro, Oba-Adenuga and Akanmu 2021).

Prior research has emphasised the relevance of service quality in business incubators and its impact on incubated business success and growth (Akpoviroro, Oba-Adenuga and Akanmu 2021). High-quality services, such as effective mentorship, access to resources, and networking support, have been shown to positively influence the development and success of SMMEs (Akpoviroro, Oba-Adenuga and Akanmu 2021).

This study intends to provide insights into the effectiveness and impact of services offered to incubate SMMEs by analysing service quality at DUT CSERI. This evaluation will look at many aspects of service quality, such as responsiveness, reliability, tangibility, assurance, and empathy (Pakurár *et al.* 2019). Understanding the strengths and shortcomings of DUT CSERI's services can aid in identifying areas for improvement and informing policy decisions targeted at improving the support ecosystem for SMMEs.

Furthermore, this study explores the broader context of government initiatives and the issues that SMMEs face in South Africa. SMME success is determined not just by business incubator support, but also by external variables and policies that create the business environment (Chandra, Paul and Chavan 2020). As a result, it is critical to assess the service quality at DUT CSERI in relation to the government's initiatives to foster SMME growth and solve the constraints and challenges that these businesses encounter.

Finally, this study aims to contribute to a better understanding of service quality and its impact on the success of incubated SMMEs. This research intends to give significant insights for policymakers, incubator managers, and entrepreneurs to improve the support ecosystem and nurture the growth and development of small enterprises in South Africa by taking into account government initiatives and obstacles faced by SMMEs.

2.4 Business Incubation in South Africa

The key objective of business incubators (BIs) is to facilitate the development and growth of businesses in order to foster economic growth and create job opportunities, thereby increasing the general standard of living for local communities (Zouari and Abdelhedi 2021). BIs are essential in nurturing and accelerating the development of new businesses, as well as offering critical support services to developing organisations (Sanyal and Hisam 2018).

Scholars and researchers have recognised BIs' primary responsibilities and objectives, which involve promoting start-up developments and contributing to economic growth through the provision of comprehensive business development services (A'Aqoulah, Kuyini and Albalas 2022). BIs' efficacy is frequently determined by their specific goals and objectives. According to Shehada *et al.* (2020), it is widely agreed that BIs should strive to achieve the following goals:

i. Create a considerable number of jobs within a short period of time.
ii. Foster the formation and sustainable development of SMMEs in order to improve the survival and success rates of both old and new businesses.
iii. Help newly graduated students generate innovative ideas, goods, and services, and launch their personal businesses with the help of private and institutional capital.
iv. Accelerate the development of new businesses and diversify economic activities by facilitating university-based research and commercialization through firms born in incubators.
v. Facilitate networking opportunities for businesses and find export and import prospects.

vi. Support SMMEs and start-up accelerators to foster innovation and creativity-driven entrepreneurship.

Given the significance of BIs, it is critical to investigate the landscape of these organisations in South Africa. Understanding the distinctive features and dynamics of the country's BIs can help policymakers and stakeholders successfully harness their full potential for stimulating entrepreneurship, driving economic development, and attaining desired goals (Zariman, Humaidi and Abd Rashid 2022).

2.4.1 Definition of business incubator (BI)

A business incubator (BI) is defined as "a programme designed to accelerate the successful development of startups through an array of business support resources and services, developed and orchestrated by incubator management and offered in the incubator and through its network of contacts" (Shehada *et al.* 2020). This description emphasises the core purpose of a BI, which is to help entrepreneurs overcome common barriers to success, such as access to cash, networks, and business skills.

The concept of a BI has evolved over time to reflect the changing demands and dynamics of entrepreneurs (Sanyal and Hisam 2018). For example, there is a growing emphasis on social entrepreneurship, which has resulted in the establishment of incubators that particularly promote enterprises with a social or environmental objective. These incubators provide customised tools and support, such as access to impact investors, legal and regulatory expertise, and mentorship from established social entrepreneurs (Lose 2019).

Furthermore, certain incubators may specialise in particular industries or technologies, such as biotechnology, financial technology, or renewable energy (Lose 2016). These industry-focused incubators connect entrepreneurs to industry-specific resources, networks, and knowledge, allowing them to overcome industry-specific problems and succeed in their chosen sector.

In essence, a BI is a broad and flexible term that reflects the diversity of programmes, resources, and services available to support new companies. Regardless, the primary

goal of a BI remains the same: to provide entrepreneurs with the resources, support, and knowledge they need to prosper in their particular industries and contribute to the local economy (Godeiro *et al.* 2018).

BIs have emerged as critical players in fostering entrepreneurship and economic development (Harper-Anderson and Lewis 2018). Their role extends beyond physical space; they provide a variety of services and resources to nurture and accelerate the growth of entrepreneurial initiatives (Sanyal and Hisam 2018). Mentorship, networking opportunities, access to funding, marketing help, and company planning aid are examples of these services (Alpenidze, Pauceanu and Sanyal 2019). Incubators strive to boost the likelihood of success for companies and contribute to local economic growth by providing such complete support.

According to research, business incubators have a beneficial impact on the success of entrepreneurs (Shehada *et al.* 2020). Research has also shown that incubator-assisted businesses are more likely to survive and flourish than non-incubated competitors (Hausberg and Korreck 2021). Incubators foster the development of entrepreneurial skills and provide access to critical resources that can assist businesses in overcoming early-stage hurdles and increasing their prospects of long-term viability (Lose 2016).

Furthermore, the influence of business incubators goes beyond the specific ventures they sponsor. By encouraging information exchange, collaboration, and the establishment of social networks among entrepreneurs, investors, and other ecosystem stakeholders, incubators play an important role in creating regional innovation ecosystems (Shehada *et al.* 2020). Incubators aid in the construction of a conducive entrepreneurial environment and encourage economic development at the local level by encouraging such contacts.

It is important to note, however, that the effectiveness of BIs can vary depending on a number of factors, including the quality of their support services, the selection and screening process for participating ventures, and the alignment between the incubator's offerings and the needs of the startups (Alpenidze, Pauceanu and Sanyal 2019). Continuous review and customization of incubator programmes are critical to ensuring their relevance and impact (Godeiro *et al.* 2018).

Finally, BIs play an important role in fostering entrepreneurship and driving economic growth. Incubators strive to improve startup success rates and help to the creation of thriving innovation ecosystems by providing a variety of tools and services. More empirical studies and evaluations are required to better understand the aspects that contribute to incubator efficacy and to continuously improve their impact on startup success and regional economic development.

2.4.2 Types of business incubators

A number of factors influence the classification of BIs, including their growth stage, service offerings, and industry focus (Lukeš, Longo and Zouhar 2019). Technology incubators are among the most prominent types, specialising in assisting companies in the technology industry by providing resources such as networking opportunities, access to laboratories, technology transfer offices, and mentorship (Xiao and North 2018). Social incubators, on the other hand, help social entrepreneurs that want to address environmental or social issues by providing services such as impact measurement tools, access to capital, and mentorship (Sansone *et al.* 2020).

Corporate incubators, which are founded by large corporations, are aimed at promoting startups that are aligned with the corporation's long-term objectives by providing access to assets such as knowledge, technology, and distribution networks (Kötting 2020). Government incubators, as the name implies, are established by governmental agencies to stimulate the creation of new businesses by offering services such as networking, financial access, and business development support (Lamine *et al.* 2018). Mixed-use incubators that span many industries provide a variety of services such as networking, mentoring, and shared office space (Le Tellier *et al.* 2019).

Regional incubators are geographically focused and seek to promote the local economy by developing local entrepreneurs (Roundy 2021). Finally, academic incubators, which are associated with universities or academic institutions, give businesses valuable resources such as knowledge, research facilities, and opportunities for networking (Lose 2019).

The existence of several types of BIs demonstrates these institutions' flexibility and adaptability in serving the specific demands of various sectors and regions. These

incubators support the establishment and growth of entrepreneurial attempts in a variety of sectors by adapting their services to the specific needs of entrepreneurs.

2.4.3 Rapid Incubators

Rapid incubators, also known as accelerated or virtual incubators, are a type of business incubator that focuses on supporting the creation and development of businesses through a faster and more flexible process (Zhang, Jun and Palacios 2021). Unlike traditional incubators, which provide physical space and resources to start-ups over a longer period, rapid incubators offer a streamlined process that leverages technology and online platforms to connect entrepreneurs with resources and support in a shorter timeframe (Lamine *et al.* 2018; Surana, Singh and Sagar 2020).

Rapid incubators are designed to be more agile and adaptable to the changing needs of start-ups, with a focus on developing viable businesses quickly (Guillén Perales *et al.* 2020). By providing access to a wide range of resources and services, including mentorship, funding, and training, rapid incubators aim to help start-ups reach key milestones and achieve success in a shorter period of time.

One of the key advantages of rapid incubators is their ability to leverage technology to connect entrepreneurs with mentors, advisors, and other resources that can help them grow their businesses more quickly (Baldassarre *et al.* 2017). Rapid incubators also provide access to funding and investment opportunities, which can be critical for start-ups that are looking to scale their operations rapidly (Ghosh, Mehta and Avittathur 2021).

However, rapid incubators also face several challenges, including the need to balance speed and agility with quality and effectiveness (Zutshi *et al.* 2021). There is also a risk that rapid incubators may overlook some of the critical components of successful incubation, such as building strong networks and relationships with investors and mentors (Zun, Ibrahim and Hamid 2018).

Overall, rapid incubators represent a promising approach to supporting the creation and launch of businesses, particularly in industries that are characterised by fast-paced

innovation and disruption. However, continuous empirical study is required to better comprehend the effectiveness of rapid incubators and the optimal strategies for supporting start-ups through these programmes.

2.4.4 Key success factors for business incubation

According to Torun *et al.* (2018), multiple factors contribute to the success of BIs. These factors include location and facilities, governance, business development services (BDS), networking opportunities, BI culture, incubatee quality, and financial resources (Akpoviroro, Oba-Adenuga and Akanmu 2021). Other researchers agree that a shortage of each of the factors listed above can destroy an incubator (Alpenidze, Pauceanu and Sanyal 2019).

BI's success, according to Lose (2019), heavily depends on its location and the aesthetic value of its facilities. Entrepreneurs should benefit from easy accessibility because they will not be willing to drive vast distances to receive assistance. The ecstatic value of the facilities, on the other hand, will impact the entrepreneur's decision to visit the BI or not. Lose et al. (2016) concur that both of these factors will have a direct impact on SMME service quality expectations. A well-constructed BI close to where entrepreneurs are will be perceived as well-organised and providing superior service quality (Kötting 2020).

On the other hand, the BI's governance and leadership style have a direct impact on its operations. A well-managed and governed incubator will have satisfied staff who, in turn, will treat SMMEs properly, making the BI sustainable (Aziz and Alluhaidan 2022). An incubator's management should also foster an organisational culture that values and respects diversity. The BI's culture should be fair and open, allowing employees and clients to freely contribute to the BI's long-term viability (Akkermans *et al.* 2019). The BI culture will include the overall operation of the BI, including policies and processes, compliance, and overall well-being (Chandra, Paul and Chavan 2020).

All of these critical success variables, according to Alpenidze, Pauceanu and Sanyal (2019), are interconnected. The successful implementation of one or both will have an impact on the other element, either positively or negatively. For example, if qualified incubatees are recruited into the BI in a fair and transparent manner, the SMMEs and

the BI will see significant progress. Shared resources (equipment, human capital, office space, and cash) will not be abused (Harper-Anderson and Lewis 2018). Instead of being handed pre-packaged BDS that do not solve their concerns, SMMEs will be able to get what they are expecting from the BI (Cao and Zhang 2022).

It is critical for incubators to conduct market feasibility studies in order to fully understand the demands of SMMEs. Business development services will be packaged to satisfy these requirements. BI leaders should also keep in mind that the needs of SMMEs are dynamic and evolve all the time. As a result, management must be adaptable enough to market changes in order to remain relevant and thus increase sustainability (Borishade *et al.* 2021).

All of these key success factors, which may be summarised as location and facilities, governance, BDS, networking opportunities, BI culture, incubatee quality, and financial resource availability, are the ingredients for creating outstanding customer service at the incubator. As a result, some of these factors will be evaluated and findings will come out of this study.

2.4.5 Benefits accrued from business incubators

BIs provide several benefits to their customers, allowing them to build their businesses successfully (Torun *et al.* 2018). Access to financial and investment options, mentorship and networking programmes, shared resources, market access, access to research and development facilities, and branding and marketing support are among the benefits (Roundy 2021).

Access to capital is a crucial benefit provided by BIs. Incubators connect SMMEs with possible funding sources such as seed investment, venture capital, and angel investors, allowing them to access the financial resources needed to begin and build their enterprises (Le Tellier *et al.* 2019).

Mentorship and networking are also some of the benefits. BIs assist SMMEs with mentorship programmes that help them with many parts of their company, such as strategic planning, operations, and growth strategies (Lamine *et al.* 2018). Furthermore, incubators encourage networking with industry experts, investors, and

other entrepreneurs, allowing SMMEs to form vital contacts and partnerships (Kötting 2020).

The shared resources given by BIs help SMMEs save money. These resources may include office space, equipment, administrative support, and legal services, allowing businesses to gain access to critical resources without incurring large upfront fees (Sansone *et al.* 2020).

Another advantage that incubators provide is market access. Incubators assist SMMEs in connecting with potential consumers and partners, expanding their market reach and revenue-generating opportunities (Xiao and North 2018). They also assist start-ups in developing their brand identity and implementing efficient marketing strategies to market their products or services.

BIs also provide access to resources for research and development (R&D). This includes access to R&D facilities and knowledge, which helps SMMEs create and commercialise innovative products and services (Lukeš, Longo and Zouhar 2019).

Overall, BIs foster a welcoming environment for start-ups and entrepreneurs, tackling the problems of launching and growing a successful firm (Shehada *et al.* 2020). Incubators greatly contribute to the success and growth of SMMEs by offering access to capital, mentorship, shared resources, markets, R&D, and branding support.

2.4.6 Challenges faced by business incubators

According to Lose (2016) and Lose (2019), the ability of BIs to provide high-quality services to their SMMEs may be compromised by a number of obstacles. Sanyal and Hisam (2018) and Akpoviroro, Oba-Adenuga and Akanmu (2021) identified the following challenges faced by BIs:

i. Many BIs struggle with financial sustainability as a result of their dependence on external funding sources. This may restrict their capacity to provide ongoing support for their consumers and the scope of their activities.
ii. Frequently, BIs operate with limited personnel, equipment, and infrastructure. This can hinder their ability to provide SMMEs with comprehensive support services.

iii. It is crucial to the success of the BIs to choose the appropriate incubatees. Nevertheless, identifying and selecting the appropriate incubatees can be difficult, as the selection process can be subjective and may not always correspond with the incubator's objectives.

iv. Measuring the performance of a BI can be difficult due to the lack of a clear definition of success. These metrics may not be universally acknowledged or relevant for all clients.

v. BIs are intended to offer networking opportunities to their SMMEs, but they may encounter difficulties in establishing and maintaining these networks. SMMEs' ability to communicate with potential customers, investors, and partners may be hampered by a lack of networking opportunities.

vi. BIs may find it difficult to adapt to changing market conditions, which may hinder their ability to provide effective and pertinent support services to their SMMEs.

vii. Some BIs may struggle with the lack of diversity among their SMMEs. This can restrict the diversity of ideas and perspectives within the incubator, thereby limiting its capacity to support a variety of enterprises.

viii. The availability of funding is a crucial element for the success of new enterprises. However, many BIs struggle to provide their SMMEs with access to capital, which can restrict their capacity for growth and expansion.

ix. BIs may have difficulty providing support for scaling and growth. This can hinder businesses' ability to transition from the incubator to the larger market.

x. BIs may find it difficult to engage with other players in the entrepreneurial ecosystem, like funders, investors, potential clients, and state organs. The visibility and reach of the incubator and its customers can be hampered by a lack of engagement with external parties.

Overall, BIs encounter numerous obstacles when it comes to providing effective SMME support services. However, by identifying and addressing these obstacles, they can continue to support the development and success of new businesses.

2.5 DUT CSERI

2.5.1 Background

The DUT CSERI is a rapid business incubator that was established at the DUT-ML Sultan campus, funded by the DSBD through SEDA in order to develop and support SMMEs within the province of KwaZulu-Natal. The purpose of the CSERI is to infuse creativity into the entrepreneurial mindset of DUT students, alumni, and community businesses by identifying problems that could be addressed using creative solutions for key socio-economic challenges such as high levels of unemployment, inequality and poverty.

Since inception the incubator has seen a steady growth in the number of SMMEs graduating out of the incubation programme. Those SMMEs graduating out of the incubator would have met their milestones. These milestones are measured in terms of turnover generated, jobs created and sustained, funds raised, and number of IPs commercialised. The SMMEs should be able to operate sustainably without depending on grants and handouts. Its envisaged that the feedback from this study will assist management to acquire more insights into SMMEs' buying behaviour and how they are satisfied with the services they acquire from the BIs. Any service gap service will be addressed.

2.5.2 Vision, mission and values

According to the CSERI (2023), the incubator vision is to ignite entrepreneurship using innovative strategies in order to address socioeconomic challenges and create a fair and just society. This vision will be achieved through developing and promoting sustainable entrepreneurship through mentorship and strategic partnerships with industry, government, community and other entrepreneurial ecosystem stakeholders. CSERI conforms to these values: ethics, teamwork, transparency, accountability, collaboration and respect.

2.5.3 CSERI service offerings

According to the CSERI (2023), the rapid incubator should provide a range of services to entrepreneurs and social innovators as depicted in Figure 2.1. Its goal is to help

these entrepreneurs develop and grow their businesses and initiatives in a responsible and sustainable way.

FIGURE 2. 1: CSERI SERVICE OFFERINGS

Source: adapted from CSERI (2023).

CSERI offers a diverse range of services to support entrepreneurs and startups in their journey toward success. As indicated in Figure 2.1 above these services include comprehensive incubation programmes that provide entrepreneurs with access to workspace facilities, infrastructure, business development support, mentorship, and networking opportunities. It also offers business development services like providing expert guidance on market research, business modeling, financial management, marketing strategies, and go-to-market planning. Through these services, CSERI aims to empower entrepreneurs, nurture their ideas, and create an enabling entrepreneurial ecosystem.

2.5.4 CSERI service flow

According to the CSERI (2023), the CSERI service flow model is designed to help entrepreneurs develop and grow their businesses from ideation to post-incubation as

depicted in Figure 2.2 below. CSERI provides entrepreneurs with the support and resources they need to succeed throughout their journey.

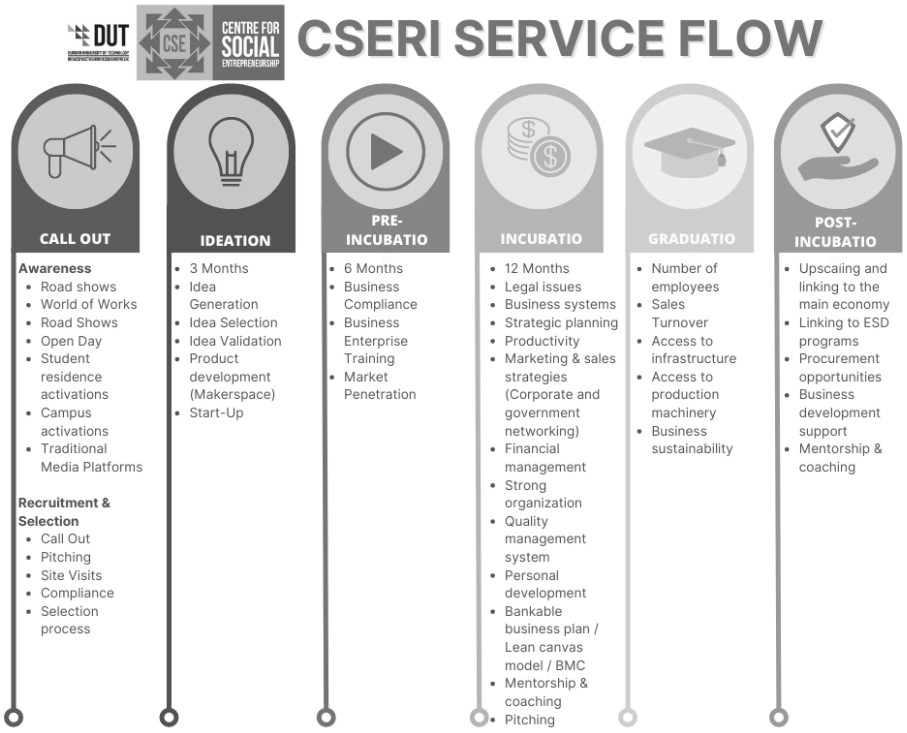

FIGURE 2. 2: THE CSERI SERVICE FLOW

Source: adapted from CSERI (2023)

The CSERI service flow model as shown in Figure 2.2 above starts with the recruitment and selection process of the ideal SMMEs for the incubator followed by placing these SMMEs in the stage of growth. These stages of growth include ideation, pre-incubation, incubation and post-incubation. Under each stage there are various interventions that are offered to SMMEs in order to grow their businesses and scale up their operations.

2.6 Business development service

Business development services (BDS) are a variety of support services offered to SMMEs in an effort to boost their growth, competitiveness, and overall development (Lose 2019; Garatsa and Dlamini 2021). These services seek to address the unique needs and obstacles faced by SMMEs and assist them in achieving sustainable market success (Ziyad *et al.* 2020).

According to Ziyad *et al.* (2020), Lose (2019) and Garatsa and Dlamini (2021) identified business development services include the following:

i. Training and capability development: Training programmes and seminars are provided for the purpose of enhancing the skills and knowledge of the owners and employees of SMMEs. These programmes address numerous facets of business management, such as financial literacy, marketing and sales, operations management, and leadership development. The objective is to equip SMMEs with the skills necessary to effectively manage and expand their enterprises.
ii. Assistance is provided to SMMEs in gaining access to financial resources and capital. This includes guiding them through the process of obtaining loans, grants, and other forms of funding. To attract potential investors or financiers, BDS providers may aid in the creation of business plans, financial forecasts, and investment pitches.
iii. Market research and marketing assistance: BDS providers conduct market research and analysis to assist SMMEs in comprehending their target market, identifying customer requirements, and developing effective marketing strategies. They may also provide assistance in branding, digital marketing, and customer relationship management to assist SMMEs in reaching and engaging their target market.
iv. Technology adoption and innovation assistance: BDS providers aid SMMEs in implementing and integrating technology solutions to enhance their operational efficiency and competitiveness. This may include advice on incorporating digital tools, e-commerce platforms, cloud computing, and other relevant technological innovations. The objective is to assist SMMEs in leveraging technology to increase their productivity, expand their reach, and maintain market competitiveness.
v. Networking and business connections: BDS providers facilitate opportunities for networking and business connections for SMMEs. This includes organising networking events, business matchmaking sessions, and trade exhibitions to facilitate connections between SMMEs and potential clients, suppliers, partners,

and other stakeholders. These connections can provide SMEs with access to new business opportunities and collaborations.

2.6.1 Definition of a service

Scholars have debated the definition of services, resulting in divergent perspectives despite an underlying consensus on their characteristics and attributes. Scholars have defined services as including deeds, processes, and performances (Kadirov, Tjiptono and Fam 2020). In the context of commerce, services are enterprises that produce immaterial goods that are concurrently produced and consumed (Fasnacht and Fasnacht 2018).

An alternative viewpoint proposes categorising services into four distinct categories, imploring organisations to carefully consider these classifications due to the possibility of overlap between service characteristics and implications (Abd 2019; A'Aqoulah, Kuyini and Albalas 2022). A key characteristic of services is that they cannot be provided in the recipient's absence, highlighting the need for employees to provide customers with adequate information and ensure the fulfilment of specific conditions (Afthanorhan *et al.* 2019a; Adebiyi, Akinrinmade and Amole 2022). Services may also be directed towards people's tangible possessions, allowing execution in the customer's absence (Akbaba 2006). However, the customer's presence is required at the beginning and end of the transaction. Services are also aimed at the mental faculties of individuals, wherein digital recording permits storage for subsequent presentation or performance (Akhlaghi, Amini and Akhlaghi 2012; Akkermans *et al.* 2019). Lastly, services may be directed towards people's intangible assets, facilitating execution with minimal transaction party involvement (Al Khayari and Kassim 2019).

Business incubators like DUT CSERI are advised to consider these classifications in order to better comprehend the distinct characteristics and requirements of various categories of services, thereby enabling the effective design and delivery of services that align with customer needs and expectations (Hausberg and Korreck 2021; Amoah *et al.* 2022).

2.6.2 Characteristics of Service

Business development services are highly demanded solutions earmarked to provide solutions to high failure rate of start-up companies and businesses (Surana, Singh and Sagar 2020). The quality of these business development services is a new area of concern (Edvardsson 1998), with a focus on service quality and SMME satisfaction (Famiyeh, Asante-Darko and Kwarteng 2018). Services and products can be distinguished from one another in terms of tangibility (Farooq *et al.* 2019). BDS is classified as a service since it embodies the typical characteristics of a service (Hamari, Hanner and Koivisto 2017). The following characteristics of services, shown succinctly in Figure 2.3 below. distinguish them from products.

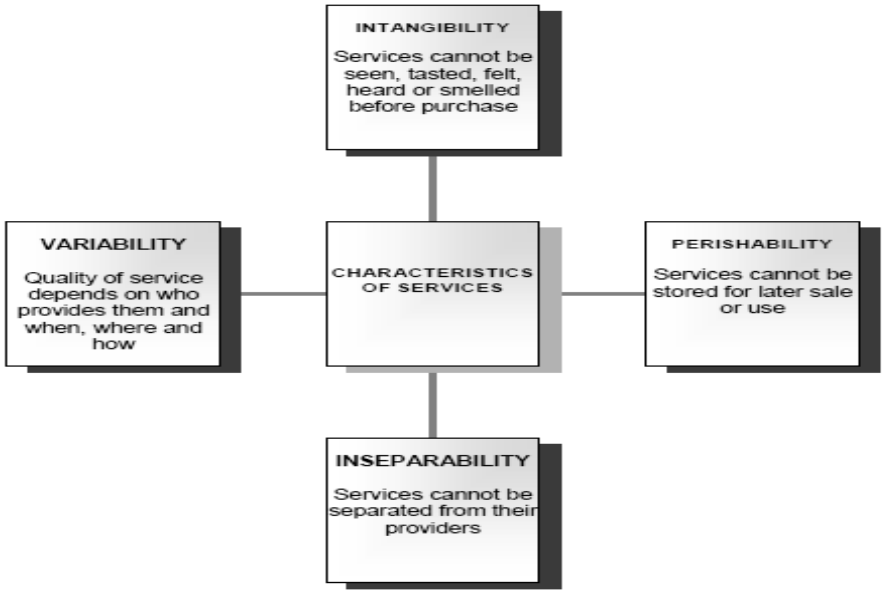

FIGURE 2. 3: CHARACTERISTICS OF A SERVICE

Source: adapted from Devnarrian (2011)

The characteristics of services are depicted clearly in Figure 2.3. They demonstrate the distinction between services and products. Business development services are intangible, as they cannot be seen, tasted, felt, heard, or smelled prior to purchase (Neumeyer, Santos and Morris 2019). This characteristic raises significant concern because SMMEs are unable to determine what they are acquiring before making a purchase. Consequently, SMMEs as consumers are overburdened with assumptions and expectations regarding the products they will purchase (Zhou *et al.* 2022). When submitting bids, SMMEs rely on information provided by incubators or other SMMEs

regarding the services they wish to acquire (Zhang *et al.* 2022a). Examining tangible evidence such as BI equipment, facilities, and physical appearance is another method SMMEs make informed decisions regarding the purchase of BDSs (Zhang *et al.* 2022b). This tangible evidence is only indicative of the quality of the BDSs provided (Chandra, Paul and Chavan 2020).

According to Ndayizigamiye and Khoase (2018), BDSs are extremely perishable because they cannot be stored and consumed later; they are consumed during processing. Prior to SMMEs utilising the service, it is neither stored nor pre-sampled. Consequently, BIs must deliver the correct service the first time. Due to the inseparability of DBSs, business knowledge is transferred when an SMME interacts with an employee of a BI, typically a business development officer (Aghion *et al.* 2019). The manner in which the business development officer provides the service also compromises its quality. Additionally, the service will vary because the same advice from the BIs' employees will be delivered differently based on the individual's approach. This characteristic of service variability highlights the significance of employee training, motivation, establishing quality assurance programmes, and standardising service delivery (Kirzner 1997). It also raises the issue of subjectivity among customers (SMMEs), as each SMME will have a unique experience with the same service.

Business incubators must effectively market themselves in order to become preferred suppliers. Effective marketing campaigns will go a long way towards establishing the BI's niche market position (Torun *et al.* 2018). BIs also necessitate a better understanding of the service-profit chain, which places employee satisfaction at the centre of customer service. BIs must look after those who look after SMMEs.

2.6.3 The service triangle

The service marketing triangle depicted in Figure 2.4 below illustrates the three marketing channels that will ensure customer satisfaction and sustainable business growth.

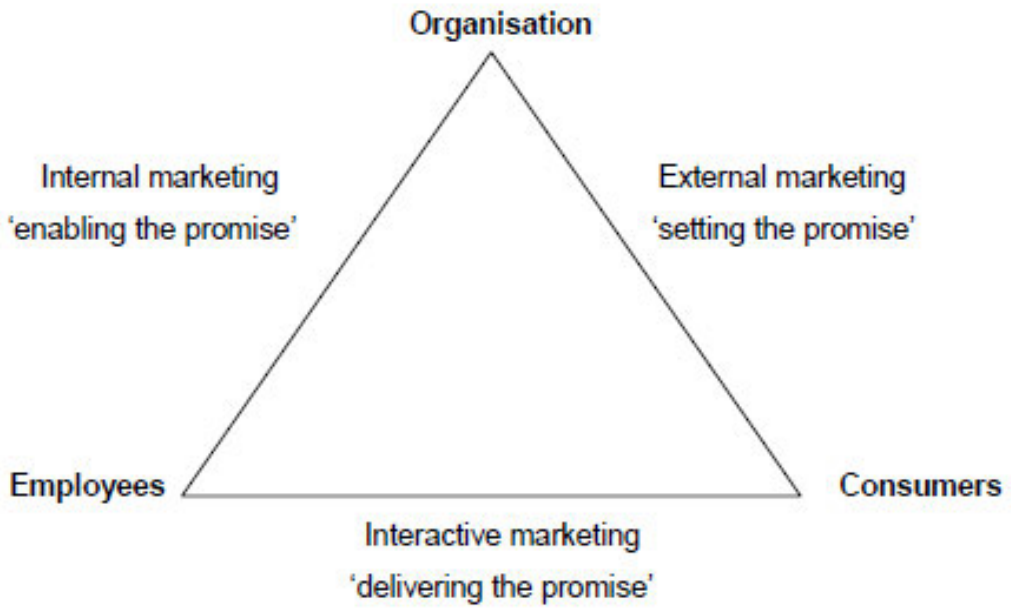

FIGURE 2. 4: THE SERVICE MARKETING TRIANGLE

Source: adapted from Devnarrian (2011)

The left side of the triangle in Figure 2.4 clearly demonstrates the significance of internal marketing. To fulfil its promises to customers, a BI such as CSERI must regard its employees as it would its SMMEs. It is essential to recruit, train, and reward employees for exceptional service in order to fulfil promises (Roundy 2021). The right side of the triangle represents the company's emphasis on external marketing initiatives. These initiatives increase consumer expectations and fulfilment assurances. All of the company's physical assets and personnel are included here. At the base of the triangle, service delivery occurs. This form of promotion is referred to as "interactive." It is the point at which a company's employees make initial contact with customers and meet their expectations. This is the time when employees are most likely to fulfil their service obligations. For the effective promotion of BDSs by BIs, all three stakeholders must participate. Marketing efforts must include all three pillars of the service marketing triangle to be successful (Le Tellier *et al.* 2019).

2.7 Service quality in business incubation

BIs must improve the quality of their services (Nunkoo *et al.* 2020). Service quality increases client satisfaction, loyalty, and referrals (Rita, Oliveira and Farisa 2019). The

business development area can compete on par with other industries owing to quality management. As a competitive advantage, business incubators should prioritise enhancements to services (Afthanorhan *et al.* 2019b). SMMES have been marketed as business incubators' target market. In order to satisfy the need for a sustainable market share, business incubators have been aggressive in implementing competitive strategies. The quality of their business development services will determine their success and competitive advantage over other business incubators (Peitzika, Chatzi and Kissa 2020). BIs promote themselves through their customers, the SMMEs. Business incubators' products and services have been endorsed by SMMEs as customers. As customer opinions with regard to service quality differ, CSERI must first determine these SMMEs' quality expectations in order to meet their needs.

The development of SMMEs would be beneficial to the government, communities, entrepreneurial ecosystem stakeholders, and society (Yousapronpaiboon 2014). In response to the social demand for quality evaluation in business development, business incubators are placing a greater emphasis on service quality (Borishade *et al.* 2021). BIs prioritise service excellence. In order to compete for customers, participants in the entrepreneurial ecosystem strive to provide superior services. The increased consumer power and awareness of new-generation SMMEs make it more difficult to recruit exceptional customers. SMMEs choose business incubators on the basis of the quality of their services. To gain a competitive advantage, Business Incubators that provide superior input must evaluate service quality (Mosimanegape *et al.* 2020b).

According to Kumar and Mahajan (2019), BIs monitor the quality of their services to adhere to the principle of continuous improvement. Similarly, DUT CSERI must routinely evaluate the quality of its services in order to remain competitive and grow.

2.7.1 Definition of service quality

Service quality refers to the customers' perception of the extent to which the service meets their expectations (Farooq *et al.* 2018). Throughout the years, the concept of service quality has been extensively researched and debated, with numerous researchers identifying its various dimensions (Klasen 1997; Khoo, Ha and McGregor

2017; Godeiro *et al.* 2018). Ali *et al.* (2016) identified two dimensions, namely functional quality and technical quality.

According to Afthanorhan *et al.* (2019a), the service quality of service entities, such as business incubators, is crucial to their success. A high level of service quality can increase customer satisfaction, loyalty, and retention. Poor service quality, on the other hand, can result in customer dissatisfaction, complaints, and ultimately customer loss (Mackay and Major 2017; Serumaga-Zake 2017; Zhang *et al.* 2022a).

Entrepreneurs rely on the incubator's support services to grow their enterprises. Thus, a high level of service quality can result in the success of the incubated businesses, whereas a low level of service quality can result in their failure (Mantey and Naidoo 2017; Galanakis and Goula 2022).

2.7.2 Service quality measurement

Service quality measurement is an essential aspect of managing service quality because it identifies areas where service enhancements are required (Bobocea *et al.* 2016; WĘGŁOwski *et al.* 2016). Many different tools and techniques have been developed for measuring service quality, including surveys, focus groups, interviews, mystery shopping, and objective measures such as service delivery times or error rates (Brown and Mazzarol 2009; Feng *et al.* 2022).

The SERVQUAL scale, created by Parasuraman et al. in 1985, is one of the most extensively used instruments for measuring service quality. This 22-item scale measures five dimensions of service quality: tangibles, dependability, responsiveness, assurance, and empathy. Each item is rated on a 5-point Likert scale, and the scores for each dimension are averaged to determine the overall service quality rating (Vojtek and Smudja 2019; Ziyad *et al.* 2020).

Several studies have employed the SERVQUAL scale to assess the quality of services in business incubators. Yong-Sik and Yung Kyun (2019) investigated the perception of service quality in a UK-based business incubator using the SERVQUAL scale, while Kassim, Bogari and Zain (2015) assessed service quality in a university-based business incubator in Pakistan.

The SERVPERF scale, devised by Cronin and Taylor in 1992, is a widely used instrument for measuring service quality. This scale evaluates service quality based on consumers' perceptions of the service they received as opposed to their expectations. Similar to the SERVQUAL scale, the SERVPERF scale evaluates service quality using five dimensions: tangibles, reliability, responsiveness, assurance, and empathy (Konerding *et al.* 2019; Amoah *et al.* 2022).

In addition to these methodologies, the importance-performance analysis (IPA) and gap analysis models can be used to measure service quality. The IPA method is utilised to determine the customer's most essential service quality attributes and the performance level of these attributes. On the other hand, the gap analysis model is used to identify the gaps between customer expectations and perceptions of service quality (Resnick and Griffiths 2012).

According to Matthews and Daigle (2019), the appropriate method for measuring service quality depends on the research objectives, the type of service, and the consumer characteristics. Therefore, it is crucial to choose a measurement method that is appropriate for the research context and objectives.

2.7.4 The SERVQUAL model

SERVQUAL is widely adopted to measure service quality. It was developed by Parasuraman, Zeithaml, and Berry (1985) and is based on the concept of comparing customers' expectations and perceptions of service quality (Hooda and Jain 2018).

SERVQUAL assesses service quality across five dimensions: tangibles, dependability, responsiveness, assurance, and empathy. Physical facilities, equipment, and personnel appearance are examples of tangibles (Golshan *et al.* 2019). Makoe and Nsamba (2019) define reliability as the capacity to provide the promised service dependably and accurately. According to Suting, Lal and Varaprasad (2020), responsiveness is the willingness to assist consumers and provide prompt service. Assurance refers to employees' knowledge, courtesy, and ability to inspire trust and confidence (Borishade *et al.* 2021). According to Ullah (2019), empathy is the caring, individualised attention a company gives its consumers.

Each of these dimensions is measured by a series of questions designed to assess both customer expectations and perceptions of service quality. Raza *et al.* (2019) assert a firm's service quality is determined by the gap between consumer expectations and perceptions.

Several studies, including those on business incubators, have utilised SERVQUAL to measure service quality in various industries. In a study by Sultana and Gupta (2020), for instance, SERVQUAL was used to evaluate service quality in India's technology business incubators. The study revealed that the overall service quality failed to meet customer expectations and stressed the need for improvements to the tangibles, reliability, and responsiveness dimensions.

Golshan *et al.* (2019) assessed the service quality in a Malaysian university-based business incubator using SERVQUAL in another study. The study revealed that customers rated the overall service quality as "moderate" and identified the assurance and empathy dimensions as requiring improvement.

Zhang *et al.* (2022a) utilised SERVQUAL to investigate service quality in Chinese business incubators, whereas Modise, Taylor and Raga (2020) employed SERVQUAL to assess service quality in African business incubators. Similarly, Mushunje and Beer (2021) examined service quality in Saudi Arabian business incubators using SERVQUAL.

Overall, SERVQUAL has proven to be a valuable instrument for measuring service quality in a variety of contexts, including business incubators. However, there have been criticisms of the SERVQUAL measurement theory, including its reliance on customer expectations as a measure of service quality and lack of consideration of the social and emotional aspects of service encounters (Chihwai 2019; Letsoalo and Mpwanya 2019; Ledwaba 2020). Some researchers have therefore proposed alternative measurement approaches, such as the SERVPERF scale, which concentrates on customers' perceptions of service quality rather than their expectations (Viljoen, Gavaza and Cilliers 2019; Awara, Anyadighibe and Bassey 2022).

In conclusion, service quality measurement is an essential component of business incubation because it provides insight into consumers' perceptions of the quality of incubators' services (Vardhan 2021). This current study will use the SERVQUAL instrument to assess the quality of their services to SMMEs.

2.7.3 The dimensions of service quality

SERVQUAL, a model for measuring service quality (Andrade, Moazeni and Ramirez-Marquez 2020), is based on the gap model of service quality, which argues that service quality is determined by the difference between customer expectations and perceptions of the quality of service (Oschman 2019). On a 5-point scale, SERVQUAL measures service quality by asking consumers to rate their expectations and perceptions of service performance. The model includes the following five dimensions of service quality (Carey *et al.* 2019):

i. Tangibles: This refers to the facilities, equipment, and personnel of the service provider (Ograjenšek and Gal 2018). At CSERI, clean and well-maintained consultation rooms and friendly and helpful staff are examples of tangibles with high value. CSERI is therefore expected to positively influence the SMMEs' expectations and perceptions by ensuring that their facilities are spotless and well-maintained and that their employees are appropriately attired.
ii. Reliability: This refers to the service provider's ability to consistently deliver the promised service on time (Lin, Xirasagar and Laditka 2004; Choudhury 2015). For instance, if CSERI consistently delivers BDSs on time and to the SMME's satisfaction, it would be regarded as dependable.
iii. Responsiveness: This refers to the service provider's willingness to assist customers and provide prompt service (Mbise and Tuninga 2016). An example of responsiveness would be a business development officer who answers the phone promptly and politely.
iv. Assurance: This refers to the competence and courtesy of the service provider's personnel, as well as their ability to instil confidence and trust (Dalati 2017). For instance, an employee of a business incubator who is knowledgeable about the SMME's needs and who explains the available assistance and aid in a clear and reassuring manner would be regarded as having high assurance.

v. Empathy: This refers to the considerate, individualised care given to consumers by the service provider (Vetri Selvi 2018). For instance, a CSERI business advisor who takes the time to fully understand the requirements of an SMME and offers customised solutions would be viewed as empathic.

These five factors are significant because they can affect customer loyalty and satisfaction. Customers are more satisfied with a service provider that excels in all five dimensions.

2.7.5 Criticisms of the SERVQUAL model

SERVQUAL has not been without criticism, despite its prominence in the literature on service quality. Mpanza *et al.* (2019) asserted that the model lacked sufficiency and that the 'expectations' measure was irrelevant and perplexing (Letsoalo and Mpwanya 2019; Viljoen, Gavaza and Cilliers 2019). SERVPERV was proposed as an alternative to SERVQUAL (Awara, Anyadighibe and Bassey 2022). The SERVPERV model utilised only 'performance' as a metric of service delivery. This model utilises only fifty percent of the SERVQUAL parameters. It was discovered that SERVPERF's 'performance' model was incapable of identifying service quality shortfalls below the intended level (Adepoju, Opafunso and Ajayi 2018; Ngoma *et al.* 2020).

According to Mufudza and Naidoo (2018), SERVQUAL concentrates solely on the service delivery process and does not address the outcomes of the service encounter. Naudé, Henrico and Staden (2022) evaluated the SERVQUAL model and criticised Parasuraman, Zeithaml, and Berry for failing to adequately explain the variability of the SERVQUAL model's outcomes.

Regardless of their differences, academics and practitioners concur that SERVQUAL and SERVPERV are the most applicable frameworks for measuring service quality across a broad spectrum of industries and disciplines.

2.8 The gap model

The quality gap analysis approach depicted in Figure 2.5 is a method of inquiry utilised to detect and analyse gaps in service quality (Zeithaml 2018).

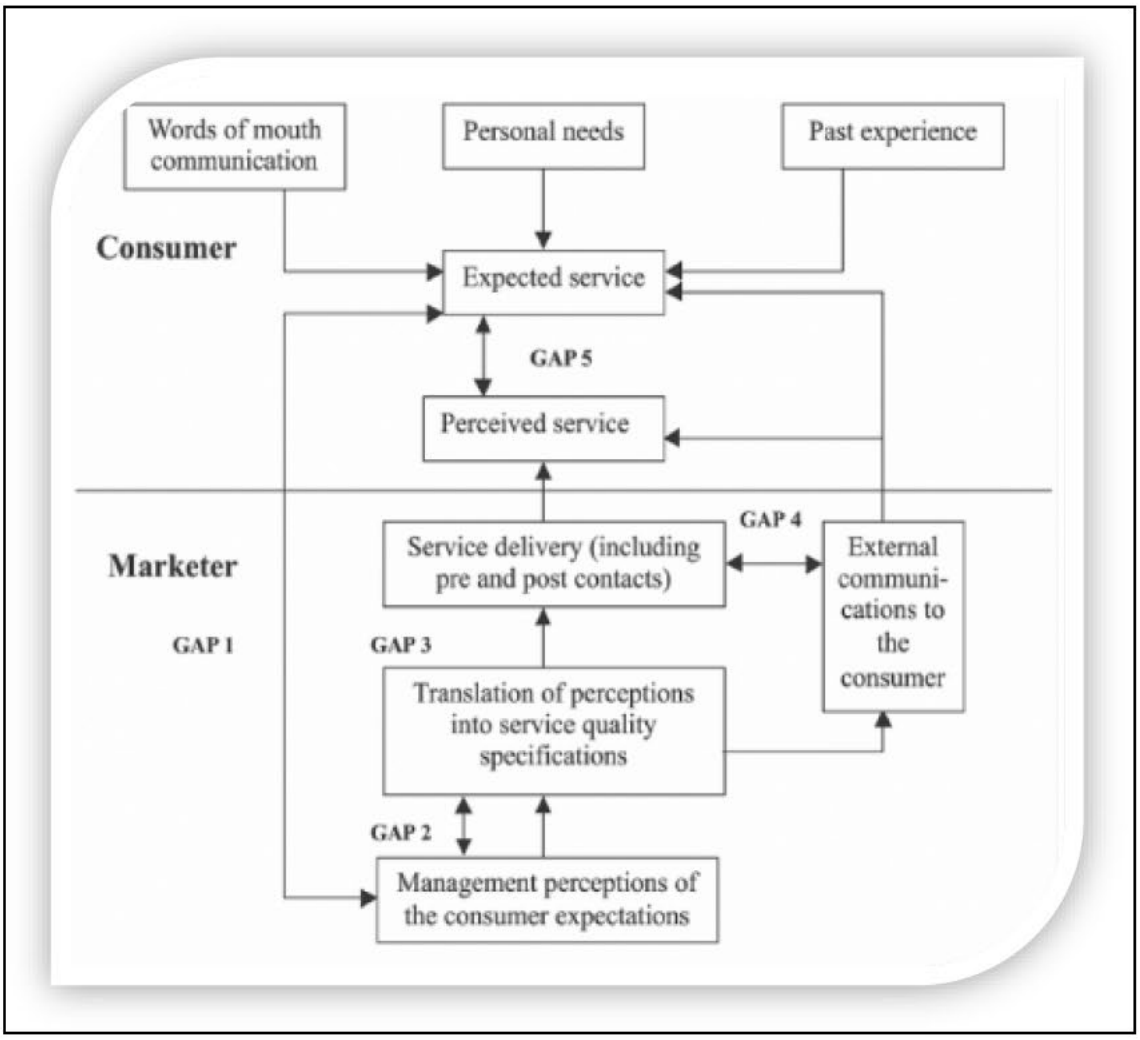

FIGURE 2. 5 THE GAP MODEL

Source: adapted from Zeithaml (2018)

The service quality gap analysis model depicted in Figure 2.5 is used to identify the gaps between consumer expectations and perceptions of the service quality provided by an organisation (Zeithaml 2018). In the instance of a business incubator, the gap analysis method can be used to identify the service quality gaps between what SMMEs expect to receive and what they actually receive when working with the incubator. According to the service quality gap analysis model, there are five potential gap scenarios that can lead to service quality gaps, which are discussed in detail below.

2.8.1 Gap 1

Gap 1 results when the customer's expectations are not in line with what the marketer perceives the customer's expectations to be. Organisations might assume that they fully understand what the customer expects, but the customer's quality expectations might be captured incorrectly. In relation to BIs, most of the BDS are pre-prepared and standardised without being tailored to the needs of SMMEs. Business incubators might assume they understand the needs of the SMMEs, such as access to business plans or funding. Instead, the SMMEs might actually be requiring pricing and costing assistance. Gap 1 can be addressed by conducting a gap analysis exercise where the BI identifies the expectations of the SMMEs. The business development officer must have good listening skills in order to capture exactly what the SMME expects to get from the incubator (Zhou *et al.* 2022).

2.8.2 Gap 2

Gap 2 results when the service quality standards do not match the management's perception of customer expectations. This might be due to poor internal control systems or planning errors. If top management is not involved in the planning, execution, and control of quality in an organisation, service quality standards may not be achieved and maintained (Mukucha *et al.* 2020). For instance, in a business incubator when confronted with the burden of satisfying rising demand for BDSs, institutions may be unable to deal with the shortage of business advisory staff. The existing BDSs will be confronted with the problem of serving so many SMMEs, which will compromise the service quality standard. The consultation time allocated to each SMME will be significantly reduced, thereby compromising personalised service delivery to the client. In order to solve this challenge, the organisation's priorities should be aimed at meeting or exceeding customer expectations of service quality (Ramya, Kowsalya and Dharanipriya 2019).

2.8.3 Gap 3

Gap 3 results when performance in the service and its delivery process does not meet quality criteria. This constraint is due to requirements that are too complicated and do not align with the existing business culture, poor internal control systems, and inadequate dissemination of marketing information (Palese and Usai 2018). For example, BIs fail to identify adequate standards that would meet the content, distribution, and application demands of their SMMEs. The solution to the aforementioned Gap 3 is the strengthening of the client selection processes and procedures to prevent choosing the wrong incubatees, appointing and employing the right staff, and having systems in place to detect quality deviations early and rectify them without interfering with quality performance (Mason, Mbambo and Pillay 2018).

2.8.4 Gap 4

Gap 4 results when the market message differs from what a service provider promises to customers in their marketing materials and what they actually deliver (Matthews and Daigle 2019). This gap can occur for a number of reasons, including:

i. Ineffective communication: The service provider may not be communicating their value proposition effectively to customers.
ii. Unrealistic expectations: Customers may have unrealistic expectations about what the service provider can offer.
iii. Poor service delivery: The service provider may not be able to deliver on their promises due to factors such as staff shortages, inadequate resources, or poor planning.

According to Matthews and Daigle (2019) and Mbise and Tuninga (2016), the market communication gap has a number of negative consequences for a service provider, including:

i. Loss of customers: Customers who are disappointed with the service they receive may choose to take their business elsewhere.
ii. Damage to reputation: A poor service reputation can make it difficult to attract new customers.

iii. Increased costs: The service provider may have to spend more money on marketing and advertising to offset the loss of customers.

The best way to close the market communication gap is to improve communication between the service provider and their customers (: Mosimanegape *et al.* (2020a). This can be done by:

i. Creating clear and concise marketing materials that accurately reflect the service that is being offered.
ii. Providing customers with opportunities to ask questions and get clarification about the service.
iii. Delivering the service in a way that meets or exceeds customer expectations.
iv. Actively soliciting feedback from customers and using it to improve the service.

Business incubators and the market communication gap

Business incubators are organisations that provide support and resources to help new businesses get started (Lose 2019). Incubators often promote their services as a way to help businesses grow and succeed. However, there is a risk that incubators may oversell their services and create unrealistic expectations among potential clients (Garatsa and Dlamini 2021). This can lead to disappointment and frustration when SMMEs expectations are not met. To avoid this, incubators should be careful not to overpromise and should make sure that their marketing materials are accurate and realistic. They should also be transparent about the services they offer and the level of support they can provide. Additionally, incubators should regularly collect feedback from clients and use it to improve their services.

2.8.5 Gap 5

Gap 5 results when the expected service is not met by the perceived service. This gap happens when all the preceding gaps occur. It also indicates the true service quality of any organisation. SMMEs expect to receive business development services that add value and grow their businesses. Disappointment and dissatisfaction occur when the service quality rendered does not meet service expectations (Ma, Yao and Yang 2021). According to Mason, Mbambo and Pillay (2018), Gap 5 can be addressed by managing

gaps that exist among all key stakeholders of a company. Businesses must aim to improve clients' satisfaction and establish long-lasting relationships with their customers (Mosimanegape *et al.* 2020a).

Msosa (2019) emphasised that service quality evaluation should be an ongoing exercise that is done regularly in order to identify defects early enough before they get to the customers. Any deviations in service quality should be rectified quickly before customers decide to switch suppliers. This study evaluates SMMEs' perceptions of service quality at DUT CSERI based on Gap 5. In light of the preceding discussion, DUT CSERI will utilise the SERVQUAL instrument to measure service quality.

2.9 Benefits of exceptional service quality

According to Adebayo (2015), Abd (2019) and Al Khayari and Kassim (2019), the following advantages can accrue to a business that provides exceptional customer service quality: customer loyalty, recurrent business, low staff turnover, reduced operational costs, and increased brand awareness are among the benefits.

A high-quality service system is extremely costly, but its benefits outweigh those of a low-quality service system. If they wish to endure in this intensely competitive market, BIs would do well to prioritise service excellence (Chebat *et al.* 1995). As a result of the excellent service quality, devoted customers will enthusiastically endorse the business development services and promote the incubator. Repeat business will be guaranteed and key employees, if not all, will not quit the company because it will be profitable (Dursun, Oskaybaş and Gökmen 2013). Additionally, the company experiences decreased costs associated with service or product defects. As a result of the BIs incubators' high-quality service, SMMEs will be able to sustain themselves, thereby enhancing the community's overall well-being (Aziz and Alluhaidan 2022).

2.10 Service quality and customer satisfaction

Service quality and customer satisfaction are closely related concepts to which every aspiring entrepreneur must pay special attention to (Ali *et al.* 2016; Yilmaz, Ari and Gürbüz 2018). Service quality is the extent to which consumer expectations are met. If expectations are exceeded, a high-quality service is provided; if they are not met, a

substandard service is provided. In contrast to customer satisfaction, which evaluates the overall performance of the service provided, service quality focuses on the performance of individual components. In addition, customer satisfaction is the degree to which the delivered services meet the customer's needs and expectations (Zeithaml 2018). Consequently, these two concepts are affected by distinct factors. The service dimensions, such as reliability, tangibility, responsiveness, assurance, and empathy, influence service quality. In contrast, customer satisfaction is impacted by service quality, product quality and price, as well as personal and situational factors (Nunkoo *et al.* 2020).

In order for businesses to prosper, they must focus on the relationship between service quality and customer satisfaction. The two sides cannot afford to be ignored. In general, service quality correlates positively with consumer satisfaction (Rita, Oliveira and Farisa 2019). This is because customers are more likely to be content when they receive service that meets or exceeds their expectations.

To attain customer satisfaction, BIs must be capable of providing high-quality services. They must exceed the expectations of SMMEs in order to charge reasonable prices that consumers will not complain about. Once service expectations are exceeded, situational and personal factors can be easily overlooked. The relationship between service quality and customer satisfaction is depicted in Figure 2.6.

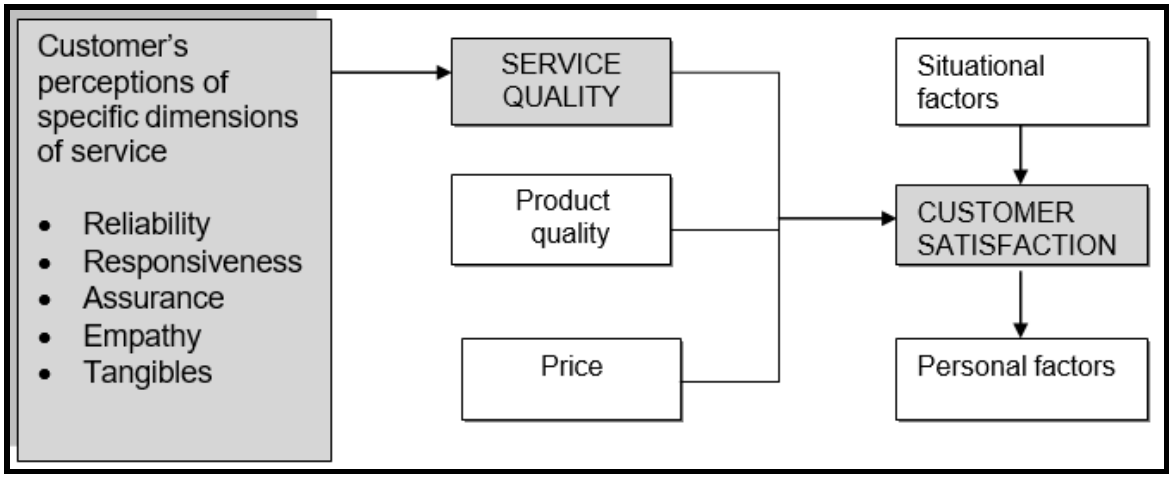

FIGURE 2. 6: RELATIONSHIP BETWEEN SERVICE QUALITY AND CUSTOMER SATISFACTION

Source: adapted from Yilmaz, Ari and Gürbüz (2018)

Figure 2.6 above clearly highlights the relationship between service quality and customer satisfaction. It clearly shows the dimensions of service that needs to be addressed if one is to have quality service. Thereafter, it shows the other factors that influence customer satisfaction. Businesses are advised to start with service quality, which is within the company's control. Other factors are external to the business, making them difficult to control and influence.

Customer satisfaction at BIs will be determined by the quality of business development services offered to SMMEs, service fees for the business support services, the quality of the service offerings, personal factors such as the entrepreneurial personality, and the economic conditions they find themselves in.

2.11 Conclusion

This chapter covered an in-depth literature review covering several aspects of the research problem. The review explored the role government plays in SMME development, the various policy initiatives developed by the government, the concept of business incubation, and a brief history of DUT CSERI. It also looked at the concept of service quality, its dimensions and its measurement. Key models like SERVQUAL and the quality gap model were discussed. The chapter concluded by emphasising the benefits of service quality and the inter-relationship between service quality and customer satisfaction. This comprehensive review of the literature served as a strong

base for future chapters as well as providing insight as to how service quality at DUT CSERI can be measured.

The following chapter 3 will discuss the methodology to be used in conducting this research.

Chapter 3: Research Methodology

3.1 Introduction

The previous two chapters looked at the aim of this study, followed by an in-depth literature review. This research methodology chapter discusses the study type, research design, population, sample size, sampling method, measuring instrument, data collection, data analysis, validity and reliability and pilot test. The main objective of this study is to investigate the expectations and perceptions of SMMEs supported by DUT CSERI and determine the service quality gap.

3.2 Study type

In order to collect information from the SMMEs that patronise CSERI, a survey method was used. A SERVQUAL questionnaire consisting of six demographic questions, twenty-two questions on expectations, and twenty-two questions on SMMEs' perceptions was distributed to all targeted participants. Similar questions were asked about expectations and perceptions. The SERVQUAL tool was used because it is widely recognised tool for assessing service quality. The instrument also offers a structured framework which provides a holistic view of service quality and enables the researcher to identify specific areas for improvement within the business incubator. Moreover, SERVQUAL extensive use in various industries enabled benchmarking and performance comparison. All five service quality dimensions, such as empathy, assurance, reliability, responsiveness and assurance were covered. Nam and Lee (2011) and Nardi (2018) concurred that the survey method was the most popular method for collecting primary data and was best adapted for gathering descriptive data. Ndadziyira (2017) argued that surveys were used to collect information from a large number of respondents in a short period of time. The questions were closed-ended, and respondents were given a number of alternative options. According to Nardi (2018), closed-ended queries included all possible answers from which respondents could choose.

3.3 Research design

This was a quantitative and descriptive study that evaluated service quality at DUT CSERI. The research employed a cross-sectional approach, which involved the capture of data from a random sample of population elements at roughly the same time (Godeiro *et al.* 2018). The research study adopted the quantitative research method because the research questions focused on measuring the level of service quality provided by DUT CSERI. For example, the study aimed at measuring the satisfaction level of SMMEs with various aspects of the service provided, such as responsiveness, reliability, empathy, assurance, and tangibles. A quantitative research method involved using a survey questionnaire (SERVQUAL) to collect numerical data from a representative sample of the population and analysing the data using statistical techniques such as descriptive statistics, inferential statistics, and regression analysis.

3.4 Population

Ziyad *et al.* (2020) defined population as the total number of individuals about whom the researcher intends to draw specific conclusions. DUT CSERI has a population of 924 SMMEs in its database. These SMMEs included all businesses in incubation, regardless of stage or level. Therefore, SMMEs were selected proportionately. The target population was defined as all current SMMEs enrolled at DUT CSERI. The inclusion criteria for this study population included SMMEs who are currently enrolled at DUT CSERI and SMMEs who have used the services provided by DUT CSERI. The exclusion criteria included SMMEs who had not used the services provided by DUT CSERI.

3.5 Sample size

According to Nardi (2018), researchers draw conclusions about vast customer groups by investigating only a small proportion of the full audience. A sample is a small portion of the overall population that has been selected for research in order to represent the complete population. The sample size in this study was based on a power analysis, which takes into account factors such as the effect size, the level of significance, and the desired level of statistical power. A power analysis is a statistical technique that is used to determine the sample size needed to detect a given effect size with a certain

level of confidence and power (Lakens 2022). The sample size calculations were performed before data collection to ensure that the study had enough participants to detect meaningful effects. In general, a larger sample size increases the statistical power of the study and reduces the chance of Type II errors (false negatives) (Freiman *et al.* 2019). The formula for calculating the sample size depends on the type of statistical analysis being used and the research design. For example, this current study used a survey questionnaire, and the sample size was calculated using the following formula:

n = (Z^2 * p * q) / E^2

where:

i. n is the sample size,
ii. Z is the Z-score for the desired level of confidence (e.g., 1.96 for a 95% confidence level),
iii. p is the estimated proportion of SMMEs who are satisfied (based on prior research or pilot data),
iv. q is the complementary proportion (1 - p) and
v. E is the desired level of precision or margin of error (e.g., 5%).

Using the above formula, the sample size was 272 SMMEs with an estimated response rate of 80%. In order to meet the required sample size, 340 questionnaires were distributed.

3.6 Sampling method

The researcher employed non-probability sampling to collect data, even though a framework for sampling was available. The aforementioned choice was made as a result of predicted difficulties in finding particular interviewees. In accordance with Basias and Pollalis (2018), the benefit of non-probability sampling is that it is simpler and more cost-effective with regard to both time and money. Non-probability sampling methods, such as convenience sampling, can be conducted spontaneously to capitalise on the number of readily accessible respondents, without the statistical complication of a probability sample (Zouari and Abdelhedi 2021). It is also the optimal

technique for the questionnaire method. Convenience sampling is based on factors that are convenient for the researcher, such as respondents who are readily accessible, geographically close, have known contacts, or are interested in taking part in the study (Govender 2017). It is also imperative to recognise non-probability sampling limitations regarding generalisability. The findings derived from this sampling method may possess a degree of applicability solely to the sampled SMMEs within the DUT CSERI context. Therefore, it is crucial to acknowledge that these findings might not accurately represent the broader population of SMMEs. Therefore, any conclusions drawn from the study should be interpreted with caution and may not be universally representative of all SMMEs.

3.7 Measuring instrument

This study adopted a self-administered survey that was distributed to all the SMMEs affiliated with the DUT CSERI database. According to Mbise and Tuninga (2016) questionnaires comprising the SERVQUAL metrics measurements have been widely used to assess and evaluate the quality of services provided by organisations. An existing instrument was used as the survey instrument to collect the data in this study. The basic five-point Likert scale with scores ranging from strongly agree to strongly disagree was used to gauge the responses of the participants. The Likert scale is one of the psychometric tools that is frequently utilised in social science research (Taherdoost 2019). The Likert scale measures human attitudes towards a given construct (Joshi *et al.* 2015), and this aligns well with the aims and objectives of this mini dissertation, which were to measure the quality of service at DUT CSERI.

3.8 Data collection

To recruit the respondents, a Survey Monkey was utilised. This is a cloud-based survey tool that helps researchers create, send and analyse surveys. A non-probability sampling technique was used to recruit and select SMMEs to participate in the research study. Emails were sent to respondents who are currently in the DUT CSERI database. The SERVQUAL questionnaire was uploaded onto Survey Monkey in order to administer the questionnaires to the participants since all of them were in the database of DUT CSERI. The SERVQUAL questionnaires took no more than 10

minutes to complete. All electronic means of communication (Telephone, WhatsApp, emails) and virtual platforms were used due to their cost-effectiveness and efficiency.

3.9 Data analysis

This study was a quantitative one and the SPSS statistical package (version 29) was used to conduct statistical tests. Initially, the characterisation of the incubator was performed. A content analysis was also performed to extrapolate meaning from the gathered data. Firstly, the researcher analysed data using descriptive statistics, followed by inferential statistics. The writer concluded the analysis by measuring the validity and reliability of the study. Finally, the importance and performance matrices were presented (Godeiro *et al.* 2018).

3.9.1 Descriptive statistics

According to Sileyew (2019), the purpose of descriptive statistics is to identify and outline the general characteristics of all responses obtained. The purpose of descriptive research is to describe items such as demographics (Pallant 2020). This study employed descriptive statistics, including frequencies, mode and percentages.

3.9.2 Frequencies and percentages

A frequency is a numerical value that represents the aggregate number of occurrences for the parameter under study. According to Sileyew (2019), frequency determines whether the spread is uniform or inclined towards one or two categories. Frequency can be represented with pie charts or bar graphs. The use of percent streamlines data into an acceptable numeric range and transforms data into an accepted format that can be compared. In this study, tables, graphs, and diagrams were used to represent the findings.

3.9.3 Cronbach’s alpha

The level of homogeneity of the questionnaire's factors was determined using Cronbach’s alpha test. Cronbach’s alpha measures the cohesiveness of a group of items. Cronbach's alpha is a reliability (or consistency) coefficient and not a statistical test (Sileyew 2019). The value of Cronbach's alpha depends on the number of test

elements and their average intercorrelation. The formula for the standardised Cronbach's alpha is provided below.

$$\alpha = \frac{N \cdot \bar{r}}{1 + (N-1) \cdot \bar{r}}$$

N equals the number of items, and r-bar represents the average inter-item correlation. This formula demonstrated that increasing the number of items increases Cronbach's alpha. In addition, the alpha was low when the average inter-item correlation was low. As the average inter-item correlation increases, so does Cronbach's alpha. A coefficient of reliability of 0.8 or higher is deemed acceptable (Kost and da Rosa 2018).

3.9.4 Factor analysis

The statistical technique of factor analysis is used to minimise sets of data (Watkins 2018). In this study, a number of questions were represented by a small number of hypothetical factors using factor analysis. Individually, each question would be inadequate for measuring attitudes towards environmental policy, but collectively, they may provide a more precise assessment of attitudes. The objective of factor analysis is to determine if the three measures represent the same entity (Bandalos and Finney 2018).

3.10 Validity

According to McConachie *et al.* (2018), validity measurement is a starting point for insight into the complex issues of investigation in research. Validity in research is important as it is concerned with the generalisation of the research findings (Ndlovu 2018). In order to ensure the validity of this study, a pilot test was conducted, and a practitioner and statistician were consulted for advice and guidance. Patil *et al.* (2019) assert that SERVQUAL is a statistically valid instrument because it was subjected to intensive field testing and improvement. Therefore, SERVQUAL does not have the problem of being seen as a questionnaire that has been changed to get certain

answers from service users and service suppliers. SERVQUAL is a generic, widely applicable tool that can be used again and again.

3.11 Reliability

Mosimanegape *et al.* (2020a) assert that reliability is centred on the consistency of the research study's measures. He further indicates that standardisation of the study administration in order to minimise measurement error is important in ensuring reliability. Reliability in this study was ensured by harnessing Cronbach's alpha (Mbise and Tuninga 2016).

3.12 Pre-test

The researcher also pre-tested the instruments that were utilised to collect data to ensure that they were clear and concise and did not have any irregularities. This strengthened the validity and reliability of all the instruments that were used. Ten percent of respondents' sample size were selected to participate in the pre-test. These respondents were excluded from the main study in order to avoid contamination of the results. The questionnaire's content and sequence were pretested by the researcher to ensure accuracy before being utilised to collect data. Before conducting the mini dissertation, adjustments were made. The instrument was fine-tuned for the last step of the questionnaire construction process based on the findings of the pre-test, which provided useful understanding for circumventing unclear questions.

3.13 Conclusion

This chapter discussed the research techniques that were utilised for finding out what SMMEs perceived about the quality of service at CSERI. The goal was to scrutinise the data and find out if there were significant variations between what the interviewees perceived and what they expected.

In Chapter 4, the results of the study will be discussed.

Chapter 4: Data Analysis and Discussion of Results

4.1 Introduction

Chapter 3 discussed how the study was carried out. The aim of this chapter is to tabulate, analyse, discuss, and then present the findings of this study. The data that was harvested using the SERVQUAL questionnaire will be analysed using appropriately designed descriptive and inferential statistics. This study was set up to achieve three main objectives, which were discussed in the first chapter and then followed by an in-depth review of the literature.

This chapter will commence with an exploration of descriptive statistics based on data collected from 330 SMMEs of DUT CSERI. The results of sections A and B of the questionnaire will be explained in depth. This will be done with the help of graphs and tables, and then the results will be briefly discussed.

4.2 Response rate

There was a total of 924 SMMEs at CSERI. The sample size of 272 was calculated using a power analysis that assumed an 80% response rate and a 5% error margin (95% confidence level). To achieve the requisite sample size of 272 respondents, 340 SMMEs were invited to participate in the survey based on the anticipated response rate of 80%. The SERVQUAL questionnaires were distributed to SMMEs using Survey Monkey. 330 out of 340 distributed questionnaires were returned, for a 97% response rate and a total of 330 completed questionnaires. The CSERI survey responses are illustrated in Table 4.1 below.

TABLE 4. 1: RESPONSE RATE FROM DUT CSERI

Name of the Business Incubator	Total population	Planned sample size as per power analysis	Estimated response rate	Actual number of questionnaires distributed	Actual response rate	Achieved sample size
DUT CSERI	924	272	80%	340	97%	330

4.3 Descriptive statistics

The demographic data of the respondents consists of quantifiable statistical information about the participants. Such information includes the level of education, gender, race, marital status and many other factors. Table 4.2 below clearly shows the demographic information.

TABLE 4. 2: DESCRIPTIVE STATISTICS OF THE QUANTITATIVE DATA (N = 330)

		Statistics
Business ownership (%)	Owner (1)	98
	Manager (2)	2
Business sectors (%)	Manufacturing	25
	Retail	13
	Telecommunications	14
	Finance	7
	Transport	14
	Other	28
Gender (%)	Male	53
	Female	47
Number of employees (%)	less than 20 employees	97
	21 to 50 employees	3
	51 to 100 employees	0
	101 to 150 employees	0
	151 to 200 employees	0
Duration owning / managing	1 - 5 years	59
	6 - 10 years	25
	11 - 15 years	10
	16 - 20 years	4
	21 - 25 years	1
	> 26 years	1
Educational qualification (%)	Matric certificate	35
	Diploma / Bachelors	44
	Honours degree / B.Tech	16
	Masters	3
	Doctorate	3
	Other	3

Figure 4.1 shows that 98 percent of respondents were business owners. These statistics indicate that almost all of the SMMEs are managed by their owners. This also confirms what Garatsa (2021) discovered in the study he conducted, stating that the majority of SMMEs in South Africa are owner-managed.

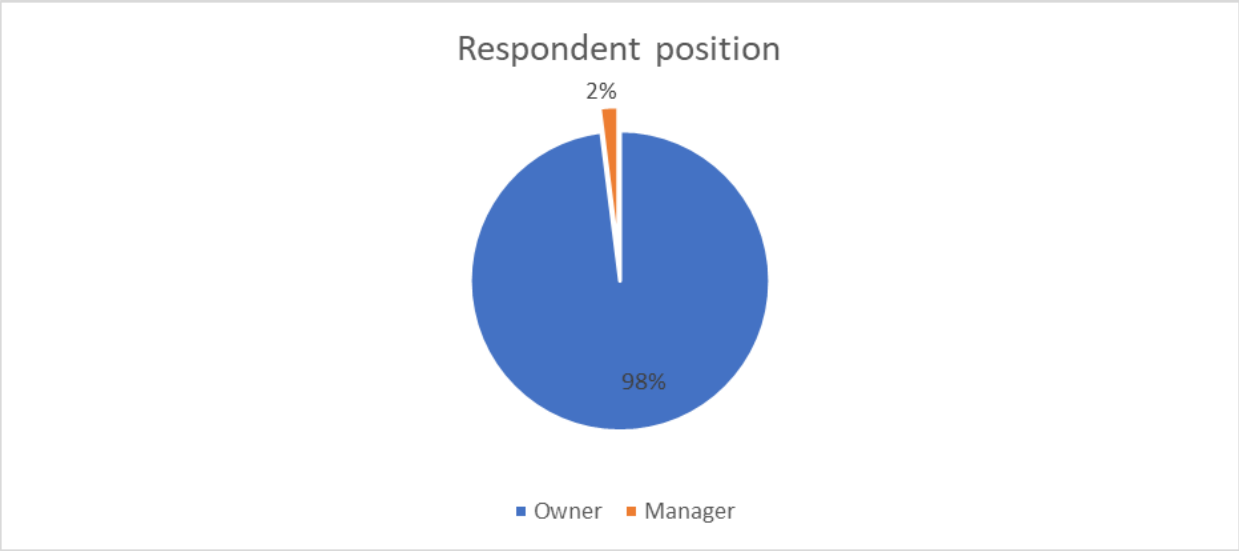

FIGURE 4. 1: DISTRIBUTION OF RESPONDENTS' POSITION (OWNER/MANAGER)

In Figure 4.2, the distribution of respondents' economic sectors is shown. Five economic sectors: manufacturing, wholesale and retail, telecommunications, finance and transport account for 72%.

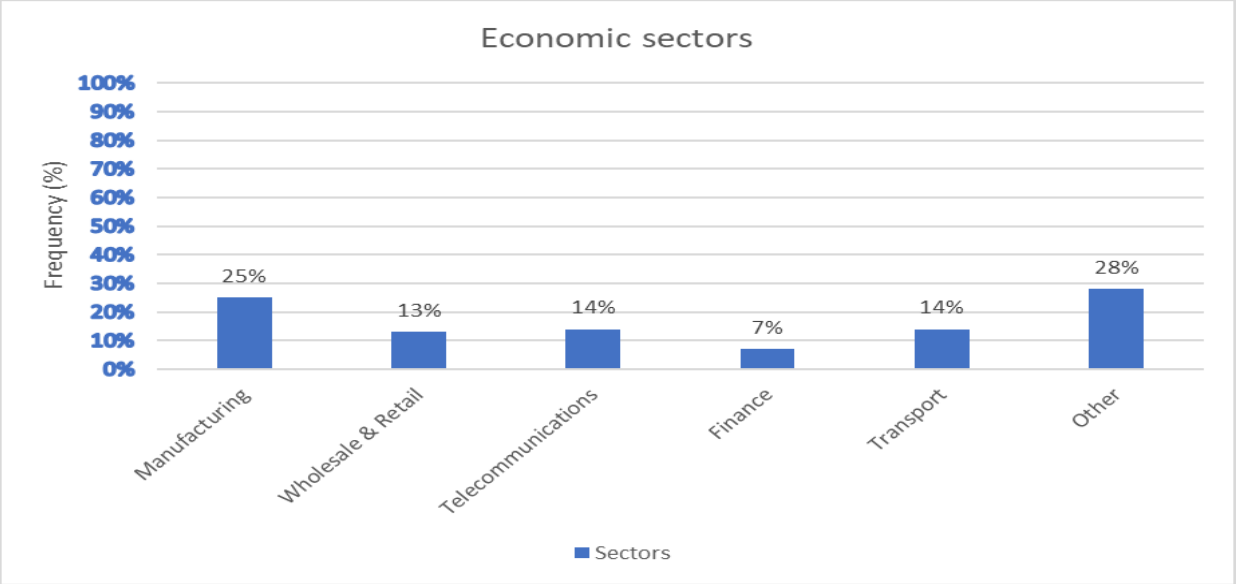

FIGURE 4. 2: DISTRIBUTION OF RESPONDENTS' ECONOMIC SECTORS

Figure 4.3 depicts the gender distribution of respondents: 53% were male and 47% were women. This also demonstrates a substantial proportion of gender equality in SMME ownership.

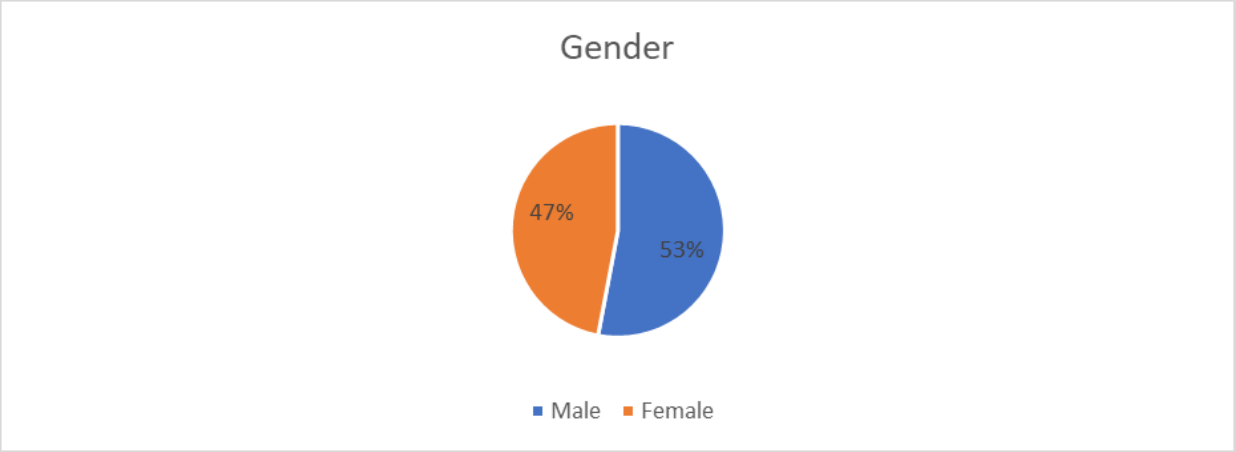

FIGURE 4. 3: DISTRIBUTION OF RESPONDENTS BASED ON GENDER

Figure 4.4 illustrates the distribution of respondents based on the number of employees the SMMEs employed. 227 SMMEs have between one and five staff members. This indicator indicates that 84% of respondents meet the criteria for SMMEs as defined by the Small Business Development Act of 2006.

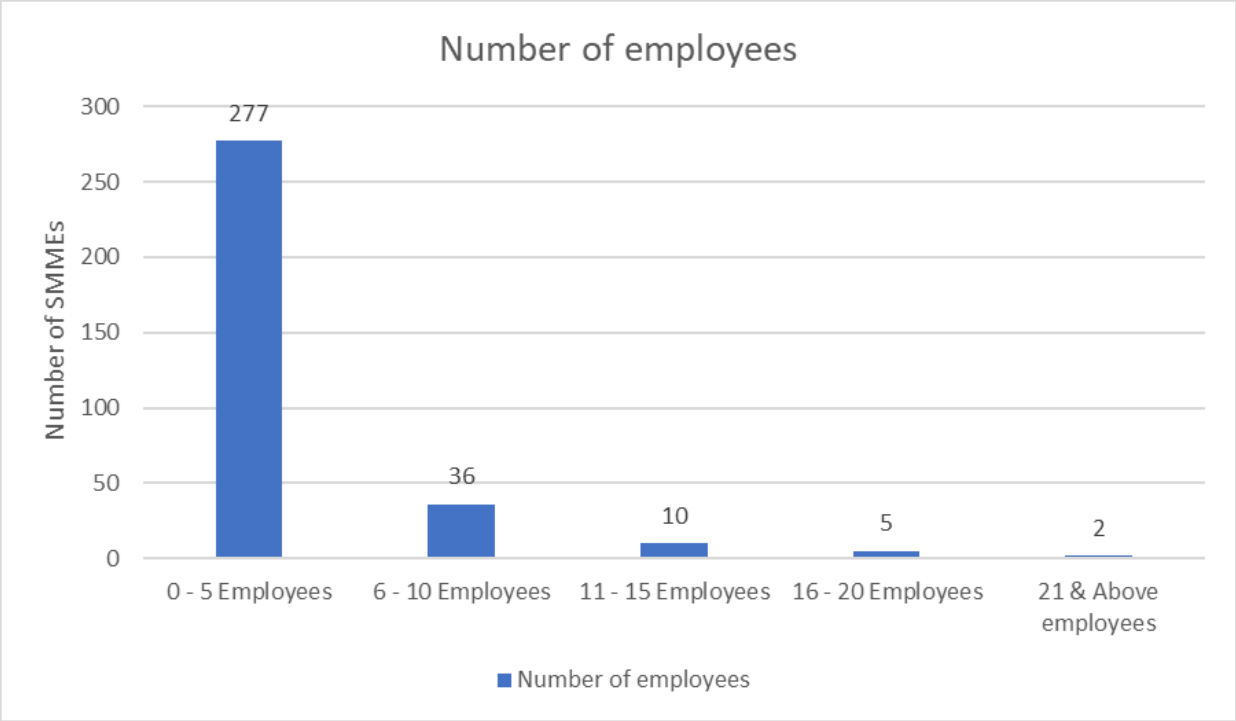

FIGURE 4. 4: DISTRIBUTION OF RESPONDENTS BASED ON THE NUMBER OF EMPLOYEES

The distribution of respondents by number of years in operation is depicted in Figure 4.5. The majority of responding SMMEs (85%) have been in operation for less than ten years. This indicator may indicate that the majority of SMMEs have closed before reaching their 10-year anniversary. In contrast, it could suggest that SMEs less than ten years old are the ones requiring incubator services.

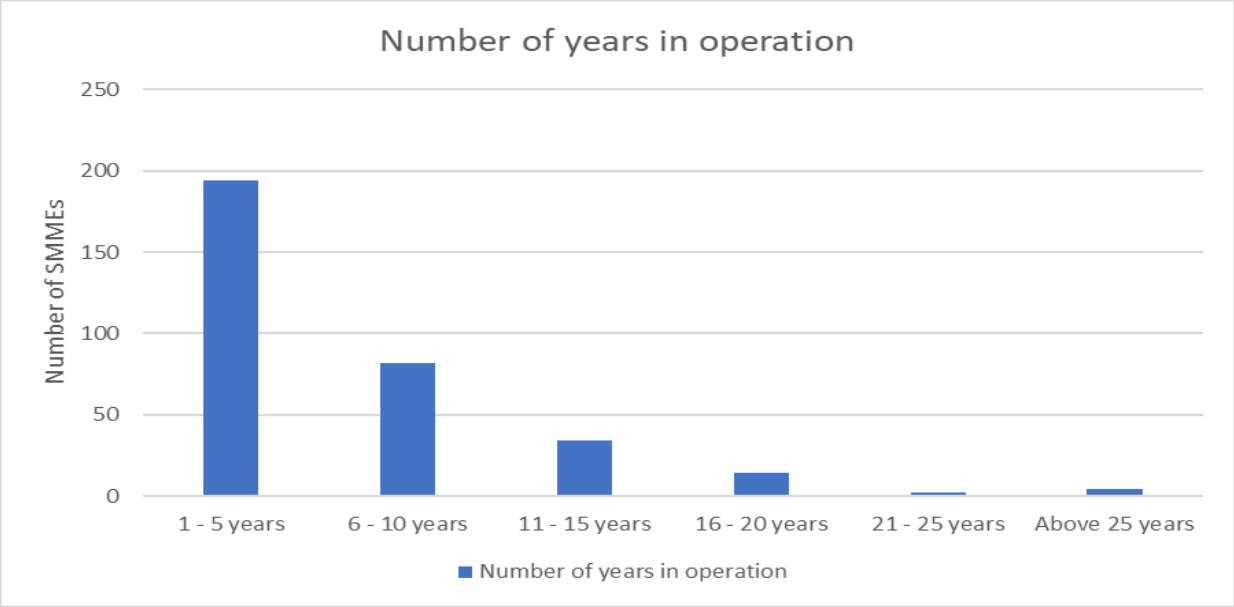

FIGURE 4. 5: DISTRIBUTION OF RESPONDENTS BASED ON THE NUMBER OF YEARS IN OPERATION

Figure 4.6 illustrates the distribution of respondents based on their level of education. Consequently, 95% of these proprietors have some form of education, highlighting the significance of literacy among South African entrepreneurs.

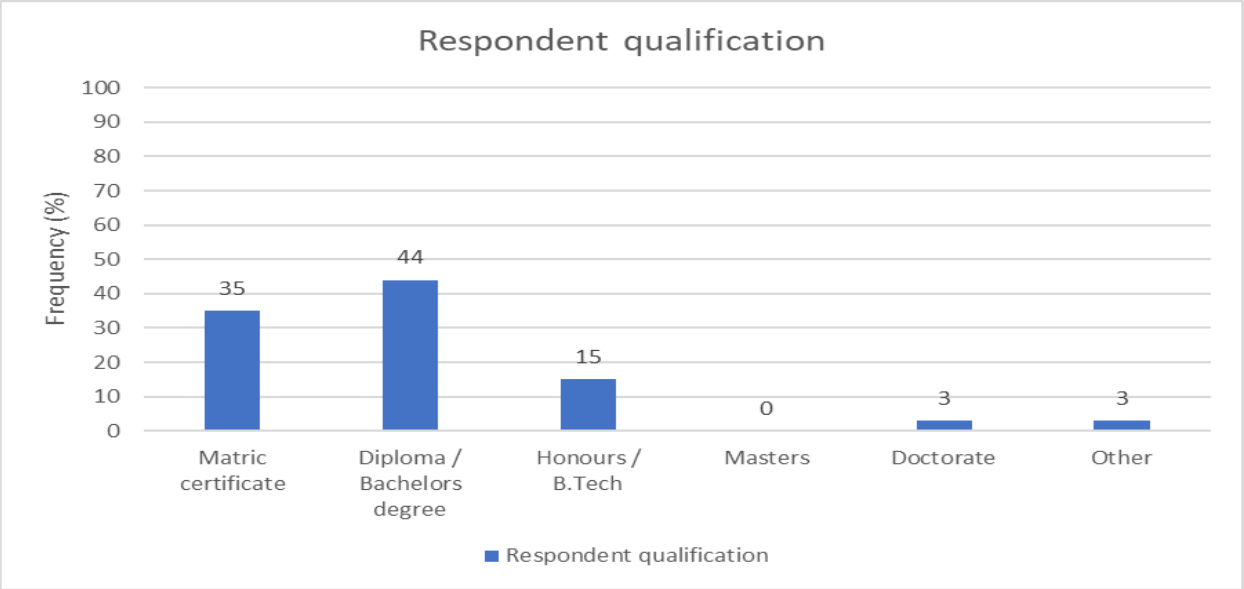

FIGURE 4. 6 DISTRIBUTION OF RESPONDENTS BASED ON THE QUALIFICATION OBTAINED

4.4 Responses on service quality expectations (N = 330)

All respondents agreed or strongly agreed that all 22 questions were reliable indicators of their service quality expectations at CSERI, as shown in Table 4.3 below. Every question elicited a majority response of strongly agree, indicating that respondents had high service quality expectations.

TABLE 4. 3: RESPONSES ON SERVICE QUALITY EXPECTATIONS (N = 330)

Dimension	Question/variable	SD	D	N	A	SA	Modal response
Tangibles (%)	Modern equipment	-	1	15	25	59	SA
	Appealing facilities	1	1	6	30	62	SA
	Professional dressing	-	-	10	19	71	SA
	Promotional material	0	1	7	26	66	SA
Reliability (%)	Promise done on time	-	-	4	32	65	SA
	Sincere interest	-	-	2	25	73	SA
	Right first time	-	-	3	32	64	SA
	Service at the promised time	-	-	3	30	67	SA
	Error-free records	-	1	6	25	67	SA
Responsiveness (%)	When is service performed	-	-	5	32	63	SA
	Prompt service	-	-	6	35	59	SA
	Willingness to help	-	-	6	25	68	SA
	Respond to customers' request	-	-	4	27	69	SA
Assurance(%)	Instil confidence in customers	-	-	-	32	68	SA
	Customers feel safe	-	-	2	33	65	SA
	Consistently courteous to customers	-	-	5	32	64	SA
	Knowledgeable staff	-	-	4	26	70	SA
Empathy(%)	Customers get individual attention	-	-	4	26	70	SA
	Convenient operating hours	1	1	4	33	62	SA
	Customers get personalized attention	-	-	7	26	66	SA
	Best interest @ heart	1	-	4	24	72	SA
	Understand customer needs	-	-	6	27	66	SA

Note: SD = Strongly disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly agree

4.5 Responses on service quality perceptions (N = 330)

The responses to the CSERI service quality perception survey are displayed in Table 4.4 below. Respondents had positive views of CSERI service quality, as indicated by the model response of strongly agree.

TABLE 4. 4: RESPONSES ON SERVICE QUALITY PERCEPTIONS (N = 330)

Dimension	Question/variable	SD	D	N	A	SA	Modal response
Tangibles (%)	Modern equipment	-	1	7	32	60	SA
	Appealing facilities	-	-	6	32	62	SA
	Professional dressing	-	-	14	16	70	SA
	Promotional material	-	1	15	21	64	SA
Reliability (%)	Promise done on time	-	-	4	33	64	SA
	Sincere interest	-	1	6	29	64	SA
	Right first time	-	1	3	34	63	SA
	Service at the promised time	-	1	6	36	56	SA
	Error-free records	-	1	5	37	56	SA
Responsiveness (%)	When is service performed	-	-	2	38	60	SA
	Prompt service	-	-	5	32	64	SA
	Willingness to help	-	-	5	33	62	SA
	Respond to customers' request	-	-	2	40	58	SA
Assurance(%)	Instil confidence in customers	-	-	5	34	62	SA
	Customers feel safe	-	-	6	30	65	SA
	Consistently courteous to customers	-	-	5	37	58	SA
	Knowledgeable staff	-	-	10	25	65	SA
Empathy(%)	Customers get individual attention	1	-	2	35	62	SA
	Convenient operating hours	-	-	4	35	61	SA
	Customers get personalized attention	-	-	5	28	66	SA
	Best interest @ heart	-	1	2	31	66	SA
	Understand customer needs	-	-	4	31	65	SA

Note: SD = Strongly disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly agree

4.6 Service quality dimensions' gap analysis

Figure 4.7 below shows the SMMEs' expectations and perceptions of each variable that makes up the tangibility dimension of service quality.

Before experiencing the CSERI service	After experiencing the CSERI service
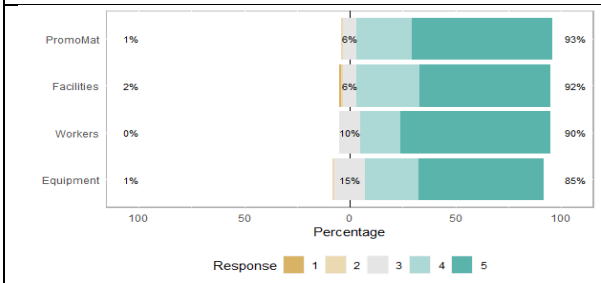	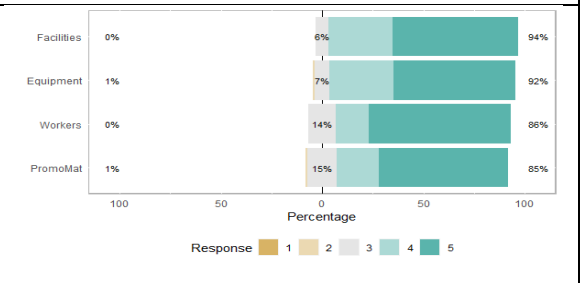
Figure 4.7a: expectations	Figure 4.7b: perceptions

FIGURE 4. 7: TANGIBILITY - LINKED-SCALE GRAPH

Figure 4.7 illustrates that prior to SMMEs experiencing CSERI service quality, all variables were scored highly and deemed significant. The most crucial factor under tangibles, was determined to be visually appealing promotional materials, followed by visually appealing facilities, formally dressed employees, and finally modern-looking equipment. However, the order of importance shifted after SMMEs experienced the grade of service provided by CSERI. The CSERI was regarded as having visually appealing facilities that exceeded the SMMEs' expectations. This also applies to modern-looking equipment, which was expected to be rated last at 85% but moved to second place with a score of 92%. The variables on performance of professionally dressed employees and visually appealing promotional materials did not meet the expectations of SMMEs. CSERI should enhance employees attire and promotional materials so that they appear professional and visually appealing. The current values of these two variables are 85% and 86%, which is very acceptable, but there is room for improvement.

The results of the t-test on the tangibility dimensions are displayed in Table 4.5 (a) below. The t-value, p-value, mean difference, and confidence interval all indicate that the results were not the result of random chance. They are sufficient for generalisation by all other incubators.

TABLE 4. 5: TANGIBILITY DIMENSIONS' STATISTICAL ANALYSIS

(a)

One-Sample Test

	Test Value = 0						
			Significance			95% Confidence Interval of the Difference	
	t	df	One-Sided p	Two-Sided p	Mean Difference	Lower	Upper
Modern looking Equipment	104.532	330	<.001	<.001	4.427	4.34	4.51
Facilities	111.214	330	<.001	<.001	4.509	4.43	4.59
Promotional Materials	127.461	330	<.001	<.001	4.582	4.51	4.65
Employees	126.307	330	<.001	<.001	4.609	4.54	4.68

(b)

One-Sample Effect Sizes

		Standardizer[a]	Point Estimate	95% Confidence Interval	
				Lower	Upper
Equipment	Cohen's d	769	5.754	5.301	6.206
	Hedges' correction	771	5.741	5.289	6.192
Facilities	Cohen's d	737	6.122	5.642	6.601
	Hedges' correction	738	6.108	5.629	6.586
Promotional Material	Cohen's d	653	7.017	6.469	7.563
	Hedges' correction	654	7.000	6.455	7.545
Employees	Cohen's d	663	6.953	6.411	7.494
	Hedges' correction	664	6.937	6.396	7.477

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation.
Hedges' correction uses the sample standard deviation, plus a correction factor.

Table 4.5 (b) displays the calculation used to determine whether or not the t-test was the appropriate statistical procedure for testing significance. The fact that the values of Cohen's d and Hedges' correction are greater than 0.5 indicates that the t-test was the most appropriate option.

Figure 4.8 below shows the SMMEs' expectations and perceptions of each variable that make up the reliability dimension of service quality.

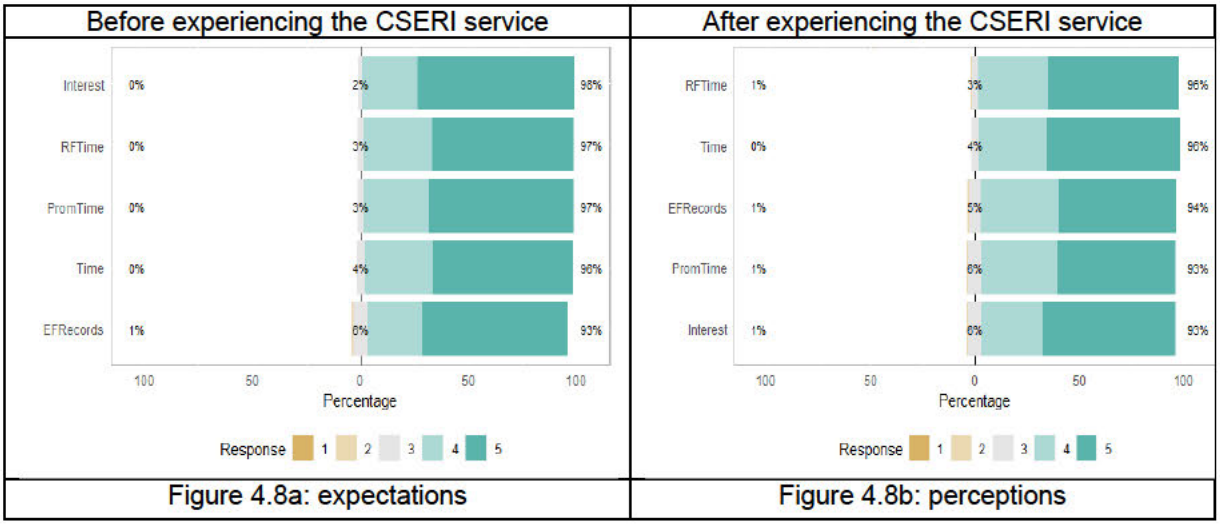

Figure 4.8a: expectations

Figure 4.8b: perceptions

FIGURE 4. 8: RELIABILITY-LINKED-SCALE GRAPH

As depicted in Figure 4.8, the expected scores for the variables under the reliability dimension are extremely high, indicating that SMMEs anticipated CSERI to be precise when it comes to these variables. The literature confirms that dependability is the most essential aspect of service quality (Sohail and Hasan 2021). The SMMEs expected CSERI to demonstrate a genuine interest in resolving their issues with a score of 98%,

followed by performing the service correctly the first time (97%), and finally by delivering the service at the promised time (97%). After experiencing the CSERI services, SMMEs deemed the importance of performing the service correctly the first time to be 96%. Even though the difference is only one percent, this reveals the improvement area. Other areas for development include demonstrating a genuine interest in resolving SMMEs' problems and delivering services at the promised time. The two variables are 4% lower. Insistence on error-free documents was the only variable that had a positive variance. The variable increased by 1%. These results indicate that the service quality in this dimension falls short of the expectations of SMMEs. This shows the service quality gap that requires urgent attention.

The results of the t-test on the tangibility dimensions are displayed in Table 4.6 (a) below. The t-value, p-value, mean difference, and confidence interval all indicate that the results were not the result of random chance. They are sufficient for generalisation by all other incubators.

TABLE 4. 6: RELIABILITY DIMENSION STATISTICAL ANALYSIS

(a)

One-Sample Test

	Test Value = 0						
			Significance			95% Confidence Interval of the Difference	
	t	df	One-Sided p	Two-Sided p	Mean Difference	Lower	Upper
Time	149.953	330	<.001	<.001	4.609	4.55	4.67
Interest	173.400	330	.000	.000	4.709	4.66	4.76
RFTime	156.302	330	.000	.000	4.627	4.57	4.69
EFRecords	127.951	330	<.001	<.001	4.591	4.52	4.66
PromTime	157.052	330	.000	.000	4.642	4.58	4.70

(b)

One-Sample Effect Sizes

		Standardizer[a]	Point Estimate	95% Confidence Interval	
				Lower	Upper
Time	Cohen's d	.558	8.255	7.615	8.894
	Hedges' correction	.560	8.236	7.597	8.873
Interest	Cohen's d	.493	9.545	8.808	10.282
	Hedges' correction	.494	9.524	8.788	10.258
RFTime	Cohen's d	.538	8.604	7.938	9.270
	Hedges' correction	.539	8.585	7.920	9.248
EFRecords	Cohen's d	.652	7.043	6.494	7.592
	Hedges' correction	.653	7.027	6.480	7.574
PromTime	Cohen's d	.535	8.685	8.009	9.360
	Hedges' correction	.536	8.665	7.991	9.338

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation.
Hedges' correction uses the sample standard deviation, plus a correction factor.

Table 4.6 (b) displays the calculation used to determine whether or not the t-test was the appropriate statistical procedure for testing significance. The fact that the values of Cohen's d and Hedges' correction are greater than 0.5 indicates that the t-test was the most appropriate option.

Figure 4.9 below shows the SMMEs' expectations and perceptions of each variable that make up the responsiveness dimension of service quality.

Before experiencing the CSERI service	After experiencing the CSERI service
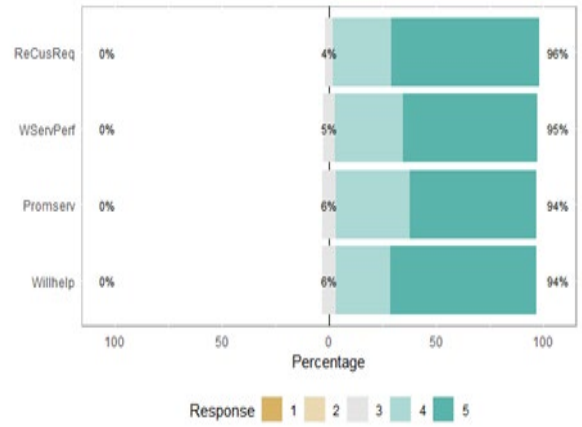	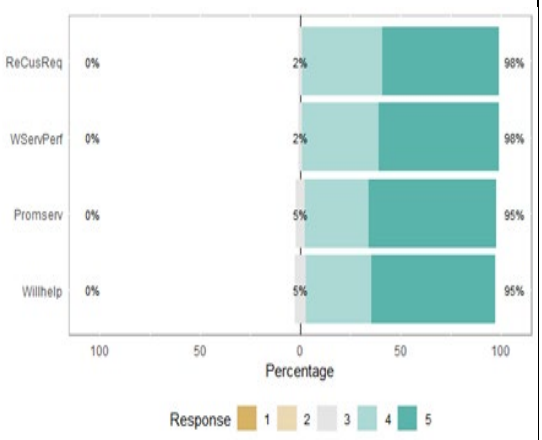
Figure 4.9a: expectations	Figure 4.9b: perceptions

FIGURE 4. 9: RESPONSIVENESS-LINKED-SCALE GRAPH

The classification of variables within the responsiveness dimension by SMMEs was identical before and after experiencing the service, as depicted in Figure 4.9. The perceptions of these variables by SMMEs were significantly more positive after experiencing the service. This indicates that CSERI's service quality exceeds the SMMEs' expectations for responsiveness.

The t-test results for the responsiveness dimensions are displayed in Table 4.7 (a) below. The t-value, p-value, mean difference, and confidence interval all indicate that the results were not the result of random chance. They are significant enough for all other incubators to generalise.

TABLE 4. 7: RESPONSIVENESS DIMENSION STATISTICAL ANALYSIS

(a)

One-Sample Test

	Test Value = 0						
			Significance		Mean Difference	95% Confidence Interval of the Difference	
	t	df	One-Sided p	Two-Sided p		Lower	Upper
ReCusReq	154.438	329	.000	.000	4.655	4.60	4.71
WServPerf	139.442	329	<.001	<.001	4.573	4.51	4.64
Promserv	133.824	329	<.001	<.001	4.527	4.46	4.59
Willhelp	138.974	329	<.001	<.001	4.618	4.55	4.68

(b)

One-Sample Effect Sizes

		Standardizer[a]	Point Estimate	95% Confidence Interval	
				Lower	Upper
ReCusReq	Cohen's d	.547	8.502	7.843	9.159
	Hedges' correction	.549	8.482	7.825	9.138
WServPerf	Cohen's d	.596	7.676	7.079	8.272
	Hedges' correction	.597	7.659	7.063	8.253
Promserv	Cohen's d	.615	7.367	6.793	7.939
	Hedges' correction	.616	7.350	6.778	7.921
Willhelp	Cohen's d	.604	7.650	7.056	8.244
	Hedges' correction	.605	7.633	7.040	8.225

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation.
Hedges' correction uses the sample standard deviation, plus a correction factor.

Table 4.7 (b) displays the calculation used to determine if the t-test was the appropriate statistical procedure to test significance. The values of Cohen's d and Hedges' correction are greater than 0.5, demonstrating that the t-test was the optimal choice.

Figure 4.10 displays the expectations and perceptions of SMMEs regarding each variable comprising the assurance dimension of service quality. SMME expectations were 95% on three variables, excluding employees' ability to answer queries with knowledge.

Before experiencing the CSERI service	After experiencing the CSERI service
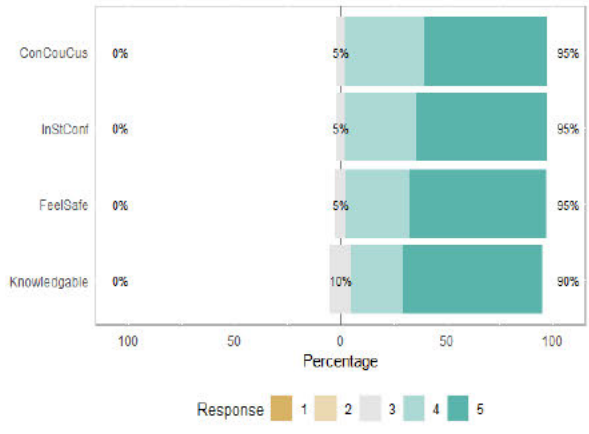	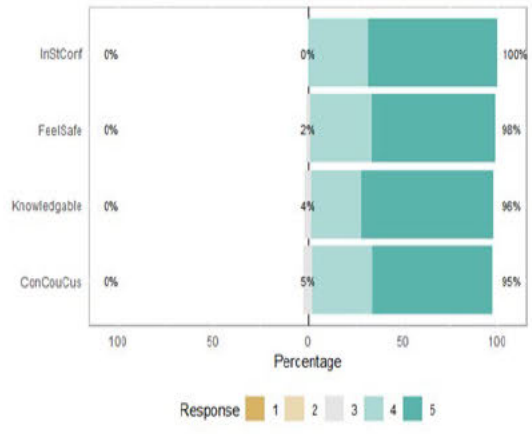
Figure 4.10 a: expectations	Figure 4.10 b: perceptions

FIGURE 4. 10: ASSURANCE LINKED-SCALE GRAPH

As depicted in Figure 4.10, the CSERI service quality exceeded the SMMEs' expectations, with customer confidence offering the greatest achievements. Even though CSERI employees were consistently courteous to SMMEs, they still have room for improvement. The perception was equivalent to anticipation.

The results of the t-test on the assurance dimensions are displayed in Table 4.8 (a) below. The t-value, p-value, mean difference, and confidence interval all indicate that the results were not the result of random chance. They are sufficient for generalisation by all other incubators.

TABLE 4. 8: ASSURANCE DIMENSION STATISTICAL ANALYSIS

(a)

One-Sample Test

	Test Value = 0						
			Significance		Mean Difference	95% Confidence Interval of the Difference	
	t	df	One-Sided p	Two-Sided p		Lower	Upper
ConCouCus	144.380	329	<.001	<.001	4.591	4.53	4.65
InStConf	182.323	329	.000	.000	4.682	4.63	4.73
FeelSafe	162.516	329	.000	.000	4.636	4.58	4.69
Knowledgable	155.494	329	.000	.000	4.664	4.60	4.72

(b)

One-Sample Effect Sizes

		Standardizer[a]	Point Estimate	95% Confidence Interval	
				Lower	Upper
ConCouCus	Cohen's d	.578	7.948	7.331	8.564
	Hedges' correction	.579	7.930	7.314	8.544
InStConf	Cohen's d	.466	10.037	9.262	10.810
	Hedges' correction	.468	10.014	9.241	10.785
FeelSafe	Cohen's d	.518	8.946	8.254	9.637
	Hedges' correction	.519	8.926	8.235	9.615
Knowledgable	Cohen's d	.545	8.560	7.897	9.222
	Hedges' correction	.546	8.540	7.879	9.201

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation.
Hedges' correction uses the sample standard deviation, plus a correction factor.

Table 4.8 (b) demonstrates the calculation used to determine if the t-test was the appropriate statistical procedure to test significance. The Cohen's d and Hedges' correction values were greater than 0.5, demonstrating that the t-test was the most appropriate analysis technique.

The expectations of SMMEs for each variable comprising the empathy dimension of service quality are depicted in Figure 4.11. The average expected score for all variables was 95%, except for personalised attention to SMMEs (93%).

Before experiencing the CSERI service	After experiencing the CSERI service
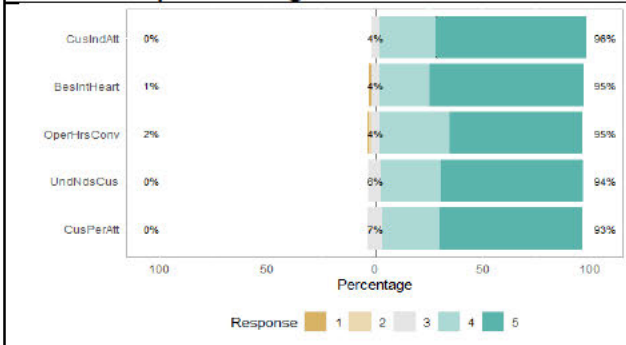	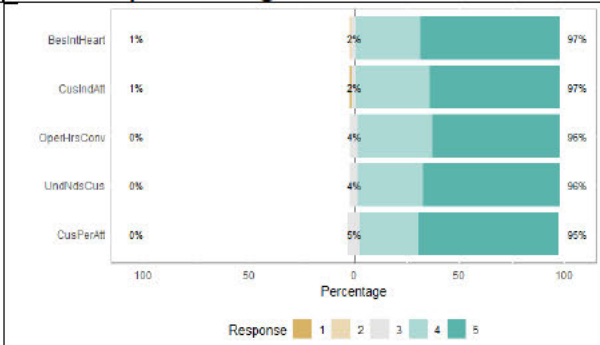
Figure 4.11 a: expectations	Figure 4.11 b: perceptions

FIGURE 4. 11: EMPATHY LINKED-SCALE GRAPH

As shown in Figure 4.11, the CSERI service quality exceeded what the SMMEs anticipated. The variable's position within this dimension remains unchanged. There is still space for improvement, as the maximum score is 100.

The computed t-test results for the empathy dimensions are shown in Table 4.9(a) below. The t-value, p-value, mean difference, and confidence interval all indicate that the results were not the result of random chance. They are sufficient for generalisation by all other incubators.

TABLE 4. 9: EMPATHY DIMENSION STATISTICAL ANALYSIS

(a)

One-Sample Test

	Test Value = 0						
			Significance			95% Confidence Interval of the Difference	
	t	df	One-Sided p	Two-Sided p	Mean Difference	Lower	Upper
CusIndAtt	155.494	330	.000	.000	4.664	4.60	4.72
OperHrsConv	118.145	330	<.001	<.001	4.536	4.46	4.61
CusPerAtt	133.824	330	<.001	<.001	4.591	4.52	4.66
BesIntHeart	132.184	330	<.001	<.001	4.655	4.59	4.72
UndNdsCus	137.677	330	<.001	<.001	4.600	4.53	4.67

(b)

One-Sample Effect Sizes

				95% Confidence Interval	
		Standardizer[a]	Point Estimate	Lower	Upper
CusIndAtt	Cohen's d	.545	8.560	7.897	9.222
	Hedges' correction	.546	8.540	7.879	9.201
OperHrsConv	Cohen's d	.698	6.504	5.995	7.011
	Hedges' correction	.699	6.489	5.981	6.995
CusPerAtt	Cohen's d	.623	7.367	6.793	7.939
	Hedges' correction	.625	7.350	6.778	7.921
BesIntHeart	Cohen's d	.640	7.277	6.710	7.842
	Hedges' correction	.641	7.260	6.695	7.824
UndNdsCus	Cohen's d	.607	7.579	6.990	8.167
	Hedges' correction	.608	7.562	6.974	8.149

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation.
Hedges' correction uses the sample standard deviation, plus a correction factor.

Table 4.9 (b) demonstrates the calculation used to determine if the t-test was the appropriate statistical procedure to test significance. The Cohen's d and Hedges'

correction values were greater than 0.5, demonstrating that the t-test was the most appropriate analysis technique.

4.7 Reliability

Cronbach's alpha test, developed in 1951, evaluates the reliability of a summative rating (Likert scale) comprising the specified variables (or items). The alpha score ranges from 0 to 1, where 0 represents no correlation and 1 represents extreme correlation. The researcher utilised Cronbach's alpha as part of the reliability test to determine the validity of the overall results. In the literature, a score greater than or equal to 0.7 is generally regarded as indicating a strong correlation, whereas a score less than or equal to 0.5 is generally regarded as signaling a weak correlation. Table 4.10 displays the results of the Cronbach's alpha test for all Likert scale survey questions.

TABLE 4. 10: THE CRONBACH'S ALPHA TEST

Test scale = mean(standardized items)

Item	Obs	Sign	Item-test correlation	Item-rest correlation	Average interitem correlation	alpha
EEquip	330	+	0.4272	0.3985	0.4309	0.9702
EFacility	330	+	0.4489	0.4208	0.4302	0.9701
EProf	330	+	0.5205	0.4947	0.4279	0.9698
EProMat	330	+	0.6520	0.6316	0.4237	0.9693
ETime	330	+	0.6428	0.6220	0.4240	0.9694
EInterest	330	+	0.6218	0.6000	0.4247	0.9695
ERFTime	330	+	0.5446	0.5196	0.4271	0.9698
EProTime	327	+	0.6705	0.6510	0.4230	0.9693
EFRecords	330	+	0.5325	0.5072	0.4276	0.9698
EWServPerf	330	+	0.6997	0.6815	0.4222	0.9692
EProServ	330	+	0.6902	0.6715	0.4225	0.9692
EWillHelp	330	+	0.7053	0.6874	0.4220	0.9691
EReCusReq	330	+	0.5096	0.4834	0.4283	0.9699
EInStConf	330	+	0.6798	0.6606	0.4228	0.9692
EFeelSafe	330	+	0.6569	0.6367	0.4235	0.9693
EConCouCus	330	+	0.7013	0.6831	0.4221	0.9691
EKnowledge	330	+	0.6142	0.5921	0.4249	0.9695
ECusIndAtt	330	+	0.6021	0.5794	0.4253	0.9695
EOperHrsConv	330	+	0.6306	0.6092	0.4244	0.9694
ECusPerAtt	330	+	0.6964	0.6781	0.4223	0.9692
EBesIntHeart	330	+	0.6649	0.6450	0.4233	0.9693
EUndNdsCus	330	+	0.5795	0.5560	0.4260	0.9696
PEquipment	330	+	0.6699	0.6502	0.4231	0.9693
PFacilities	330	+	0.6832	0.6642	0.4227	0.9692
PEmployees	330	+	0.6449	0.6241	0.4239	0.9694
PProMat	330	+	0.6759	0.6565	0.4229	0.9692
PTime	330	+	0.6920	0.6734	0.4224	0.9692
PInterest	330	+	0.7070	0.6891	0.4219	0.9691
PRFTime	330	+	0.7723	0.7578	0.4198	0.9689
PProTime	330	+	0.6280	0.6065	0.4245	0.9694
PEFRecords	330	+	0.7873	0.7736	0.4193	0.9688
PWServPerf	330	+	0.7847	0.7709	0.4194	0.9688
PProServ	330	+	0.7996	0.7866	0.4190	0.9688
PWillHelp	330	+	0.6999	0.6817	0.4221	0.9691
PReCusReq	330	+	0.7466	0.7308	0.4207	0.9690
PInStConf	330	+	0.7192	0.7020	0.4215	0.9691
PFeelSafe	330	+	0.7076	0.6897	0.4219	0.9691
PConCouCus	330	+	0.6480	0.6274	0.4238	0.9694
PKnowledge	330	+	0.5356	0.5104	0.4275	0.9698
PCusIndAtt	330	+	0.7119	0.6943	0.4218	0.9691
POperHrsConv	330	+	0.7903	0.7768	0.4192	0.9688
PCusPerAtt	330	+	0.7858	0.7721	0.4194	0.9688
PBesIntHeart	330	+	0.6744	0.6550	0.4230	0.9693
PUndNdsCus	330	+	0.7122	0.6946	0.4218	0.9691
Test scale					0.4234	0.9700

The *Test scale* denotes the additive scale, where 0.423 is the average inter-item correlation, while the alpha coefficient for a test scale based on all items is 0.970. On the other hand, *Obs* is the number of non-missing values of the items, while *Sign* indicates the direction in which each variable entered the scale. Generally, the item-test correlations should be almost similar for all variables. It may not be sufficient to detect variables that fit poorly because they may distort the scale. As a result, item-rest correlations, which show the correlation between a variable and the scale that is formed by all other variables is usually considered. The last column in the table

presents the Cronbach's alpha, the test scale, which is made up of all but one variable. The overall Cronbach's alpha of 0.970 reported in the study suggests very strong inter-item correlations, which signifies the reliability of the summative Likert scale of the variables used in this study this is in line with the study by Mbise and Tuninga 2016.

4.8 Principal component analysis (PCA) model

The PCA model was used to establish the determinants of service quality. The PCA identifies three components as having a variance greater than 1 as shown in Table 4.11 below.

TABLE 4. 11: PRINCIPAL COMPONENT ANALYSIS FOR SMMES EXPECTATIONS

Principal components/correlation — Number of obs = 327
Number of comp. = 3
Trace = 22
Rotation: orthogonal varimax (Kaiser off) — Rho = 0.6567

Component	Variance	Difference	Proportion	Cumulative
Comp1	6.27411	.432095	0.2852	0.2852
Comp2	5.84202	3.51033	0.2655	0.5507
Comp3	2.33169	.	0.1060	0.6567

As shown in Table 4.11 above, the first component contributes about 28.5% of the variation in the data, while the second component contributes about 26.6% of the variation in the sample, and the third component contributes approximately 10.6% of the variation. Thus, the three identified components together contribute a total variation of about 65.7% in the data. To understand the variables that significantly load each component, loadings were computed for all components against each variable. To eliminate less impactful variables in each component, loading values less than 0.3 were eliminated, thus only loading values greater than 0.3 were included. The results are presented in Table 4.12 below.

TABLE 4. 12: EXPECTATIONS: COMPONENTS AGAINST EACH VARIABLE

Dimensions	Variable	Component 1	Component 2	Component 3	Unexplained
Tangibles	Modern-looking equipment			0.5829	0.1534
	Visually appealing physical facilities			0.5333	0.2682
	Professionally dressed employees	0.3576			0.3672
	Visually appearing promotional material				0.3317
Reliability	Promises made are certainly done at set time				0.4478
	Show sincere interest in solving customer problems				0.5657
	Performs the service right the first time	0.341			0.4026
	Provide services at the time they promise to do so				0.224
	Insists on error-free records	0.3439			0.4401
Responsiveness	Tell customers exactly when services will be performed	0.3468			0.2434
	Give prompt service to customers				0.3413
	Always be willing to help customers	0.3543			0.213
	Never be too busy to respond to customers' requests				0.5229
Assurance	Employees' behaviour instils confidence in SMMEs				0.3533
	SMMEs feel safe in their transactions				0.264
	Employees are consistently courteous to SMMEs		0.3584		0.2577
	Employees are knowledgeable to answer SMMEs' questions		0.3225		0.3282
Empathy	Give SMMEs' individual attention		0.339		0.3713
	Operating hours are convenient for all SMMEs				0.4338
	Employees give SMMEs personal attention		0.3482		0.2262
	Have the SMMEs' best interests at heart		0.3844		0.324
	Employees understand the needs of their SMMEs		0.3027		0.4723

NB: Rotated components (blanks are abs (loading) <0.3)

As shown in Table 4.12 above, component 1, which contributes 28.5% of the variation in the data, has the following variables loaded in it: professionally dressed employees, performing the service right the first time, insisting on error-free records, telling customers exactly when services will be performed, and always willing to help customers. This component combined one variable under the tangibility dimension and two variables from reliability and responsiveness dimensions of service quality. These variables show some similarity in that they highlight the importance of an employee in determining the service quality given to SMMEs. Therefore, the researcher concludes

that employees' soft skills and attention to detail determine the level of service quality SMMEs receive from CSERI.

Component two, which contributes 26.6% variation to the data, has the following variables loaded in it: employees are consistently courteous to SMMEs; employees are knowledgeable to answer SMMEs' questions; employees giving SMMEs' individual attention; employees giving SMMEs personal attention; employees having the SMMEs' best interests at heart; and employees understanding the needs of their SMMEs. This component only combined variables from the assurance and empathy dimensions of service quality. This highlights the importance of employees giving SMMEs assurance of quality service and empathising with them.

Component three, which contributes 10.6% variation to the data, has the following variables loaded in it: modern-looking equipment and visually appealing physical facilities. Component three has only combined two variables from the tangibility dimension. This indicates that physical infrastructure like incubator facilities, equipment, prototyping equipment, boardrooms, makerspaces, and furniture and fittings, has a huge impact on influencing SMMEs' expectations of service quality. The other variables as shown in Table 4.12 were identified as not significantly important determinants of the phenomena investigated in the study.

Table 4.13 below shows the principal component analysis for SMMEs perceptions (P).

TABLE 4. 13: PRINCIPAL COMPONENT ANALYSIS FOR SMMES PERCEPTIONS

Principal components/correlation — Number of obs = 330; Number of comp. = 3; Trace = 22; Rotation: orthogonal varimax (Kaiser off) — Rho = 0.7381

Component	Variance	Difference	Proportion	Cumulative
Comp1	9.46806	5.87033	0.4304	0.4304
Comp2	3.59773	.426242	0.1635	0.5939
Comp3	3.17149	.	0.1442	0.7381

As shown in Table 4.13, the first component contributes about 43.04% of the variation in the data, while the second component contributes about 16.35% of the variation in the sample, and the third component contributes approximately 14.42% of the

variation. Thus, the three identified components together contribute a total variation of about 73.81% in the data. To understand the variables that significantly load each component, loadings were computed for all components against each variable. To eliminate less impactful variables in each component, loading values less than 0.3 were eliminated, thus only loading values greater than 0.3 were included. The results are presented in Table 4.14 below:

TABLE 4. 14: EXPECTATIONS: COMPONENTS AGAINST EACH VARIABLE

Dimensions	Variable	Component 1	Component 2	Component 3	Unexplained
Tangibles	Modern-looking equipment			0.5465	0.1822
	Visually appealing physical facilities			0.5259	0.2003
	Professionally dressed employees				0.2603
	Visually appearing promotional material				0.1815
Reliability	Promises made are certainly done at set time				0.3704
	Show sincere interest in solving customer problems		0.3295		0.1935
	Performs the service right the first time		0.4089		0.1973
	Provide services at the time they promise to do so		0.5463		0.2507
	Insists on error-free records		0.427		0.207
Responsiveness	Tell customers exactly when services will be performed				0.3308
	Give prompt service to customers				0.2689
	Always be willing to help customers	0.3125			0.2852
	Never be too busy to respond to customers' requests				0.3139
Assurance	Employees' behaviour instils confidence in SMMEs				0.2939
	SMMEs feel safe in their transactions				0.3366
	Employees are consistently courteous to SMMEs				0.3728
	Employees are knowledgeable to answer SMMEs' questions	0.3816			0.3012
Empathy	Give SMMEs' individual attention			0.3113	0.2172
	Operating hours are convenient for all SMMEs				0.2482
	Employees give SMMEs personal attention				0.2284
	Have the SMMEs' best interests at heart	0.3469			0.2457
	Employees understand the needs of their SMMEs				0.2769

NB: Rotated components (blanks are abs (loading) <0.3)

As shown in Table 4.14 above, component 1, which contributes 43.04% of the variation in the data, has the following three variables loaded in it: CSERI employees' show

willingness to help SMMEs (responsiveness dimension); they are also knowledgeable about how to answer SMMEs' questions (assurance) and they have SMMEs' best interests at heart (empathy). This component highlighted the importance of responsiveness, assurance and empathy dimensions in enhancing service quality. CSERI must make sure that they train employees so that they become knowledgeable about the business development services that are required and demanded by SMMEs. Once the business development officer is knowledgeable enough, he or she can willingly assist SMMEs while keeping their best interests at heart.

The second component, which contributes 16.35% variation to the data, has the following variables loaded in it: showing sincere interest in solving SMMEs problems, performing the service right the first time, providing services at the time they promise to do so, and insisting on error-free records. This component only has combined variables from reliability dimension of service quality. It confirms how important the reliability dimension is in determining service quality. Mosimanegape *et al.* (2020a) proclaimed that reliability is the most important dimension among all service dimensions, which is being confirmed by this study.

Component three, which contributes 14.42% variation to the data, has the following variables loaded in it: modern-looking equipment and visually appealing physical facilities, which are the same variables for the expectations component. However, as for perceptions, giving SMMEs' individual attention (empathy) has been included. Component three has two variables from the tangibility dimension and one from the empathy dimension. This indicates that physical infrastructure like incubator facilities, equipment, prototyping equipment, boardrooms, makerspaces, and furniture and fittings, has a huge impact on influencing SMMEs' perceptions of service quality.

The other variables, as shown in Table 4.14, were identified as not significantly important determinants of the phenomena investigated in the study.

Kaiser-Meyer-Olkin (KMO)

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is a test that is used to prove that the PCA model was the best for the data. The rule of thumb is that the PCA model is the best if the KMO value is 0.5 or more. This KMO value ranges from 0 to 1, with 0 meaning it is totally unacceptable to use the PCA test, while 1 means PCA is an extremely desired model. This study's data, both expectations and perceptions, have about a 0.9 value for KMO, which means PCA is an extremely suitable model for analysing the data.

TABLE 4. 15: KAISER-MEYER-OLKIN (KMO) MEASURE OF SAMPLING ADEQUACY

Variable	Expectations: KMO value	Perceptions: KMO value
Modern-looking equipment	0.840	0.887
Visually appealing physical facilities	0.782	0.852
Professionally dressed employees	0.812	0.824
Visually appearing promotional material	0.876	0.851
Promises made are certainly done at set time	0.907	0.867
Show sincere interest in solving customer problems	0.936	0.895
Performs the service right the first time	0.945	0.915
Provide services at the time they promise to do so	0.896	0.845
Insists on error-free records	0.831	0.926
Tell customers exactly when services will be performed	0.917	0.910
Give prompt service to customers	0.830	0.917
Always be willing to help customers	0.803	0.890
Never be too busy to respond to customers' requests	0.823	0.907
Employees' behaviour instils confidence in SMMEs	0.855	0.891
SMMEs feel safe in their transactions	0.880	0.897
Employees are consistently courteous to SMMEs	0.909	0.866
Employees are knowledgeable to answer SMMEs'	0.811	0.839
Give SMMEs' individual attention	0.807	0.848
Operating hours are convenient for all SMMEs	0.900	0.921
Employees give SMMEs personal attention	0.866	0.943
Have the SMMEs' best interests at heart	0.818	0.853
Employees understand the needs of their SMMEs	0.910	0.862
Overall	**0.862**	**0.883**

4.9 Conclusion

This chapter analysed, discussed, tabulated, and presented the study's findings. Graphs and tables were utilised to display the processed data. The presentation began with descriptive statistics and then transitioned to inferential statistics. It was essential to observe that the survey respondents were a good representation of the entire population. Cronbach's alpha value of 0.97 confirmed the reliability of the summative

rating (Likert scale) comprised of the specified variables, indicating that both the instrument and the results were genuine.

Responses regarding expectations and perceptions of service quality were tabulated and juxtaposed to identify service quality gaps. The service quality gap was determined by five variables, three of which were part of the tangible dimension. The five service quality gaps highlighted opportunities for improvement. The remaining 17 variables exceeded the SMMEs' expectations, suggesting that this excellent performance requires reinforcement.

The t-test used to determine the level of significance indicated that the results were due to an arbitrary occurrence and could be implemented in other incubators. Cohen's d and Hedges' corrections were also used to corroborate the t-test, and all of the results confirmed the validity, dependability, and significance of the collected data and methodologies.

The principal component analysis was also performed to determine the service quality's determinants. Only three components with variances greater than one were identified. This statistical analysis revealed the service quality dimensions that had the greatest influence on determining service quality. These factors included tangibility, reliability and assurance. Additionally, valuable indicators were identified.

The following chapter provides a summary of the study. In addition, it will present whether the research questions were answered, make recommendations, and emphasise the study's limitations and suggestions for future research.

Chapter 5: Summary, Conclusions and Recommendations

5.1 Introduction

The preceding chapter tabulated, analysed, discussed and presented the findings of this study. This chapter provides a summary of the theory and concepts. In addition, it summarises the extent to which the research objectives have been achieved, makes recommendations, and highlights the study's limitations and future research suggestions.

5.2 Summary of the study

The main objective of the study was to assess CSERI's service quality. To accomplish this objective, the researcher set out to identify service quality gaps by determining the expectations and perceptions of SMMEs. The purpose of identifying service quality gaps was to provide management at the incubator with a better understanding of service quality and to improve SMME retention, acquisition of the best SMMEs into the incubator, and service to these SMMEs.

The second chapter discussed the government's role in the development of SMMEs, its policies, and how they have influenced the establishment of business incubators in South Africa. This chapter also examined the different categories of business incubators, as well as their success factors, benefits and challenges. The history of CSERI in order to fully understand how this incubator aligns itself with government policies and interventions was discussed. The adjuster was posed with service characteristics to determine if CSERI's service offerings matched their properties.

The remaining section discusses service quality in business incubation as well as the instruments and methods used to measure service quality. The components of service quality and the significance of business incubators in maintaining high standards of service quality were examined in detail. The quality gap model examined the causes of service quality disparities. The model also revealed that closing the disparity between the SMMEs' expectations and their perceptions of service quality was crucial.

The gap analysis in Chapter 4revealed that DUT CSERI is performing extremely well in terms of providing exceptional service quality. In the majority of cases, the expectations of SMMEs were lower than their perceptions. Nonetheless, there is space for improvement, as only one variable scored a perfect 100. In addition, the results revealed that the order of importance for the variables comprising a dimension does not remain the same for SMMEs due to the presence of numerous other factors.

5.3 Summary of the empirical study

The research findings were analysed, interpreted, and presented in Chapter 4. The research was quantitative in nature. Of the 340 questionnaires distributed to SMMEs that have utilised CSERI services, 330 were collected. The research findings revealed the service quality aspects that CSERI excels at, the areas for improvement, and the areas that must be maintained as is. Superior service quality will ultimately result in customer satisfaction and repeat business.

5.4 Attainment of research objectives

5.4.1 To determine SMMEs' expectations of service quality?

Using the SERVQUAL questionnaire, the service quality expectations of SMMEs for CSERI were recorded, verified, and analysed. The findings were recorded and categorised into five distinct service dimensions. According to the results, SMMEs expected exceptional service quality from CSERI. All SMMEs had expectations above 94% for all variables. Only five of the 22 questions (variables) revealed that the expectations of SMMEs exceeded their perceptions. This indicates that improvements should be prioritised in these two dimensions, where SMMEs expect higher service quality than is currently provided.

5.4.2 To determine SMMEs' perceptions of service quality?

CSERI measured the perceptions of service quality among SMMEs. The results of the 15 questions answered revealed that the perceptions of SMMEs exceeded their expectations. These results indicate that CSERI provides superior service quality that exceeds the expectations of SMMEs. The Incubator should maintain or improve its condition.

5.4.3 To identify the gaps in service quality at DUT CSERI?

The scores of SMMEs for either expectations or perceptions are clearly displayed in Figure 5.1 below. Shortcomings in service quality are also highlighted. There were five service quality gaps that required CSERI's attention. These include visually appealing promotional materials, employees who are properly dressed, promises that are fulfilled on time, employees who demonstrate a genuine interest in solving the problems of SMMEs, and services that are performed correctly the first time. These variables had negative gap values and should be CSERI's top priority for improvement. The results also reveal that the majority of the gaps are positive, indicating that CSERI service quality is generally excellent.

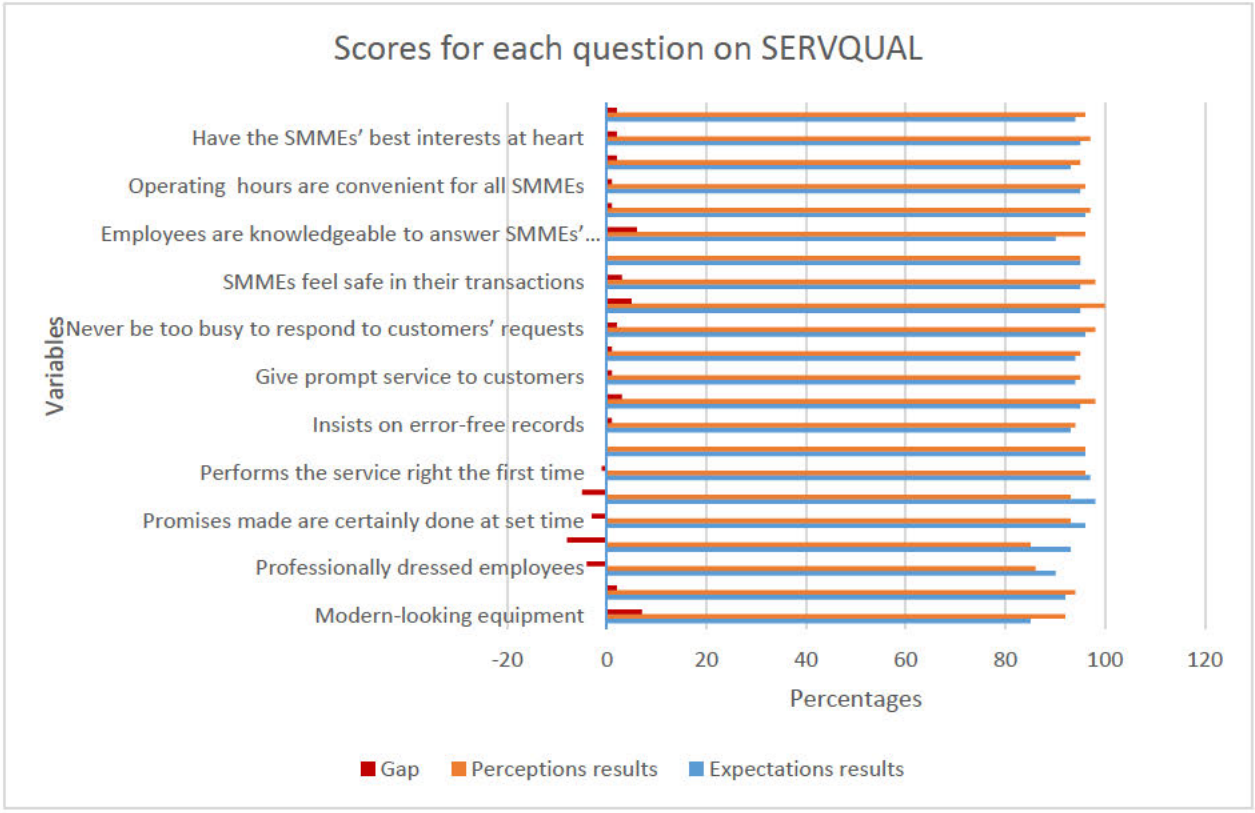

FIGURE 5. 1: EXPECTATIONS AND PERCEPTIONS SCORES

5.5 Recommendations of the study

This study focused on assessing the service quality at the CSERI. As business incubators play a crucial role in supporting entrepreneurship and economic growth, it is essential to evaluate the quality of the services they provide. The study managed to

identify the service quality gaps in CSERI's service delivery and also contributed to the existing knowledge on service quality in business incubators. Therefore, this study intends to provide the following recommendations for enhancing CSERI's services and ultimately improving the overall service quality in business incubators, fostering the success of entrepreneurial ventures within the Durban ecosystem.

i. Service quality measurement at DUT CSERI should be carried out regularly to identify any gaps that may be exist and allow corrective actions to be taken timeously. Once SMMEs expectations are met or surpassed, they will become satisfied customers and loyal to CSERI members, thereby making it more competitive.
ii. CSERI management should embrace service quality management holistically by involving every employee at the incubator. The SMMEs interact with the employees, especially the business development officers, mentors, and coaches. These employees should be made aware of the importance of service quality and be trained in how best to handle SMMEs.
iii. According to the findings of this study, it was discovered that the promotional materials were not visually appealing to the SMMEs. It is recommended that management consider improving the visual appeal of their promotional materials. It is also recommended that management at the business incubator consider introducing an employee dress code to complement their brand. As for the other tangible variables, like modern looking equipment and visually appealing facilities, it is recommended that management maintain their current standard, as it surpasses the SMMEs expectations.
iv. It is recommended that the management and CSERI staff entrench the service quality dimension of reliability. The concept is regarded as one of the most important among all dimensions. In order to cultivate reliability, SMMEs promises should certainly be fulfilled within the set time and employees should show interest in solving the SMME’s problems. The services provided should be right the first time. For instance, SMMEs requiring a business plan should be given exactly that, not drafts of a business plan.
v. It is recommended that CSERI regularly gather and assess the views, requirements and preferences of SMMEs. This will help both leadership and

employees address problems before they become severe. Employees should be trained and equipped to resolve the identified challenges faced by SMMEs.

5.6 Recommendations for future study

The researcher suggests that SERVQUAL be used again to assess the service quality of CSERI, but this time it should include the employees. The current study only investigated the expectations and perceptions of SMMEs without considering the views of their employees. Employees are a very important component in the creation, delivery and consumption of services.

Future studies should also consider researching with enough time to ask SMMEs to complete the expectations' questionnaire before joining the incubator and thereafter at regular intervals to complete the perceptions questionnaire. This will allow the incubator to clearly understand what the SMMEs expect to get from it without any influence. Furthermore, asking the SMMEs to complete the perceptions questionnaire after they have experienced the service removes biases in their responses. Regular interval completion of the perceptions will assist SMMEs in identifying any development patterns or anomalies before they become unmanageable.

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5.7 Limitations of the study

The study was limited to a single case study of the CSERI at the Durban University of Technology. Therefore, the findings may not be generalisable to other business incubators or social entrepreneurship ecosystems in South Africa or other countries. The sample size of this study was also limited, as it was based on entrepreneurs affiliated with the CSERI at Durban University of Technology. Therefore, the results are not representative of other business incubators or social entrepreneurship ecosystems in South Africa or other countries. This study also relied on self-reported data from entrepreneurs. As such, there may be bias or inconsistencies in the responses, which could impact the reliability of the findings.

5.8 Conclusion

There is a rapid increase in the number of incubators in South Africa, all aiming to service the same market. Measuring service quality becomes paramount. Several challenges that the South African economy is facing require SMMEs to come up with sustainable solutions so that they can address unemployment and social ills and improve the livelihoods of South Africans. These SMMEs need a conducive environment that is created by business incubators. Thus, business incubators should provide exceptional quality services to SMMEs in order for them to remain competitively sustainable and to create and develop SMMEs with a lasting impact on the economy.

This chapter provided a summary of the theory and concepts. In addition, it summarised the extent to which the research objectives were achieved, made recommendations, and highlighted the study's limitations and future research suggestions.

Reference List

A'Aqoulah, A., Kuyini, A. B. and Albalas, S. 2022. Exploring the gap between patients' expectations and perceptions of healthcare service quality. *Patient Preference & Adherence* (Article), 16: 1295-1305. Available: https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=a9h&AN=157282387&site=ehost-live&scope=site&custid=s5210036 (Accessed 03 January 2023).

Abd, E. 2019. A REVIEW OF TELECOMMUNICATIONS SERVICE QUALITY DIMENSIONS. *Proceedings on Engineering Sciences*, 1 (2): 533-546.

Abrahams, D. 2018. Local economic development in South Africa: A useful tool for sustainable development. *Local economic development in the changing world*: 131-145.

Adebayo, R. O. 2015. The use of marketing tactics by the church in fulfilling its social mandate in KZN. PHD, Durban University of Technology. Available: http://hdl.handle.net/10321/1362 (Accessed 03 January 2023).

Adebiyi, S. O., Akinrinmade, O. J. and Amole, B. B. 2022. OPTIMIZING SERVICE QUALITY MANAGEMENT OF THE BUS RAPID TRANSPORT SYSTEM IN LAGOS USING THE MULTI-CRITERIA DECISION ANALYSIS. *Scientific Journal of Silesian University of Technology. Series Transport*, 116: 5-23.

Adepoju, O. O., Opafunso, Z. and Ajayi, M. 2018. Primary health care in South West Nigeria : evaluating service quality and patients' satisfaction. *African Journal of Science, Technology, Innovation and Development*, 10 (1): 13-19.

Afolabi, H., Ram, R., Hussainey, K., Nandy, M. and Lodh, S. 2022. Exploration of small and medium entities' actions on sustainability practices and their implications for a greener economy. *Journal of Applied Accounting Research*,

Afthanorhan, A., Awang, Z., Rashid, N., Foziah, H. and Ghazali, P. 2019a. Assessing the effects of service quality on customer satisfaction. *Management Science Letters* 9(1): 13-24. Available: http://dx.doi.org/10.5267/j.msl.2018.11.004 (Accessed 17 January 2023).

Afthanorhan, A., Awang, Z., Rashid, N., Foziah, H. and Ghazali, P. 2019b. Assessing the effects of service quality on customer satisfaction. *Management Science Letters*, 9 (1): 13-24.

Aghion, P., Akcigit, U., Bergeaud, A., Blundell, R. and Hémous, D. 2019. Innovation and top income inequality. *The Review of Economic Studies*, 86 (1): 1-45.

Ahmed, N., Li, C., Qalati, S., Khan, A. and Siddiqui, F. 2020. Role of business incubators as a service provider in entrepreneurship development. *Journal of Entrepreneurship & Organization Management*, 9 (1): 1-7.

Akbaba, A. 2006. Measuring service quality in the hotel industry: A study in a business hotel in Turkey. *International Journal of Hospitality Management*, 25 (2): 170-192.

Akhlaghi, E., Amini, S. and Akhlaghi, H. 2012. Evaluating Educational Service Quality in Technical and Vocational Colleges using SERVQUAL Model. *Procedia - Social and Behavioral Sciences*, 46: 5285-5289.

Akkermans, H., van Oppen, W., Wynstra, F. and Voss, C. 2019. Contracting outsourced services with collaborative key performance indicators. *Journal of Operations Management*, 65 (1): 22-47.

Akpoviroro, K. S., Oba-Adenuga, O. A. and Akanmu, P. M. 2021. The role of business incubation in promoting entrepreneurship and SMEs development. *Management and Entrepreneurship: Trends of Development*, 2 (16): 82-100.

Al Khayari, S. A. H. and Kassim, N. M. 2019. SERVICE QUALITY: GAP IN AIR TRANSPORTATION. *Proceedings on Engineering Sciences*, 1 (2): 321-334.

Ali, A. 2018. State of growth barriers of SMEs in Pakistan: A review based on empirical and theoretical models. *NICE Research Journal*: 158-182.

Ali, F., Zhou, Y., Hussain, K., Nair, P. K. and Ragavan, N. A. 2016. Does higher education service quality effect student satisfaction, image and loyalty? A study of international students in Malaysian public universities. *Quality assurance in education*. Available: http://www.emeraldinsight.com/0968-4883.htm (Accessed 17 January 2023).

Alpenidze, O., Pauceanu, A. M. and Sanyal, S. 2019. Key success factors for business incubators in Europe: An empirical study. *Academy of Entrepreneurship Journal* 25(1): 1-13. Available: https://www.researchgate.net/profile/Onise-Alpenidze/publication/332268546_KEY_SUCCESS_FACTORS_FOR_BUSINESS_INCUBATORS_IN_EUROPE_AN_EMPIRICAL_STUDY/links/5cd45ae292851c4eab8f13c6/KEY-SUCCESS-FACTORS-FOR-BUSINESS-INCUBATORS-IN-EUROPE-AN-EMPIRICAL-STUDY.pdf (Accessed 15 January 2023).

Amoah, V., Opoku, D. A., Ayisi-Boateng, N. K., Osarfo, J., Apenteng, G., Amponsah, O. K. O., Owusu-Dabo, E., Issah, S. and Mohammed, A. 2022. Determinants of Maternal Satisfaction with the Quality of Childbirth Services in a University Hospital in Kumasi, Ghana: A Cross-Sectional Study. *BioMed Research International*, 2022: 1-8.

Andrade, R., Moazeni, S. and Ramirez-Marquez, J. E. 2020. A systems perspective on contact centers and customer service reliability modeling. *Systems Engineering*, 23 (2): 221-236.

Awara, N. F., Anyadighibe, J. A. and Bassey, F. O. 2022. Service Quality and Customer Satisfaction of Banking Services in Nigeria. *African Journal of Business and Economic Research*, 17 (4): 261-281.

Aziz, R. and Alluhaidan, A. S. 2022. Are we good enough? A measurement for Information Technology Service Quality (ITSQ) in higher education institutions in Saudi Arabia. *PLoS ONE*, 17 (11): 1-14.

Baldassarre, B., Calabretta, G., Bocken, N. and Jaskiewicz, T. 2017. Bridging sustainable business model innovation and user-driven innovation: A process for sustainable value proposition design. *Journal of cleaner production*, 147: 175-186.

Bandalos, D. L. and Finney, S. J. 2018. Factor analysis: Exploratory and confirmatory. In: *The reviewer's guide to quantitative methods in the social sciences*. Routledge, 98-122.

Basias, N. and Pollalis, Y. 2018. Quantitative and qualitative research in business & technology: Justifying a suitable research methodology. *Review of Integrative Business and Economics Research* 7: 91-105 (Accessed 24 January 2022).

Bobocea, L., Gheorghe, I. R., Spiridon, S., Gheorghe, C. M. and Purcarea, V. L. 2016. The management of health care service quality. A physician perspective. *Journal of Medicine & Life*, 9 (2): 149-152.

Borishade, T. T., Ogunnaike, O. O., Salau, O., Motilewa, B. D. and Dirisu, J. I. 2021. Assessing the relationship among service quality, student satisfaction and loyalty: the NIGERIAN higher education experience. *Heliyon*, 7 (7): e07590.

Botha, A., Smulders, S. A., Combrink, H. A. and Meiring, J. 2021. Challenges, barriers and policy development for South African SMMEs–does size matter? *Development Southern Africa*, 38 (2): 153-174.

Brown, R. and Mazzarol, T. 2009. The importance of institutional image to student satisfaction and loyalty within higher education. *Higher Education (00181560)*, 58 (1): 81-95.

Buelens, B., Burger, J. and van den Brakel, J. A. 2018. Comparing inference methods for non-probability samples. *International Statistical Review*, 86 (2): 322-343.

Cao, G.-H. and Zhang, J. 2022. The entrepreneurial ecosystem of inclusive finance and entrepreneurship: A theoretical and empirical test in China. *International Journal of Finance & Economics*, 27 (1): 1547-1568.

Carey, G., Malbon, E. R., Weier, M., Dickinson, H. and Duff, G. 2019. Making markets work for disability services: The question of price setting. *Health & Social Care in the Community*, 27 (5): e716-e723.

Chandra, A., Paul, J. and Chavan, M. 2020. Internationalization barriers of SMEs from developing countries: a review and research agenda. *International Journal of Entrepreneurial Behavior & Research*, 26 (6): 1281-1310.

Chebat, J.-C., Filiatrault, P., Gélinas-Chebat, C. and Vaninsky, A. 1995. Impact of waiting attribution and consumer's mood on perceived quality. *Journal of Business Research*, 34 (3): 191-196.

Chihwai, P. 2019. Developing SAFSERV : a comprehensive framework to measure tourists' satisfaction in Kruger National Park. *Business & Social Sciences Journal*, 4 (2): 29-51.

Choudhury, K. 2015. Evaluating customer-perceived service quality in business management education in India: A study in topsis modeling. *Asia Pacific Journal of Marketing and Logistics*, 27 (2): 208-225.

CSERI, D. 2023. *Support Small Businesses in Durban • Centre for Social Entrepreneurship Rapid Incubator*. Available: https://cseri.co.za/about-us/ (Accessed 02 June 2023).

Dalati, S. 2017. Effect of service quality on students' satisfaction in private higher education in Syria. In: Proceedings of *Proceedings of the 5th International Conference on Management Leadership and Governance, ICMLG 2017* (Conference Paper). 93-100. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85054222732&partnerID=40&md5=72ddacdaa5fa33aaab15d7d018246ed7 (Accessed

Devnarrian, P. 2011. Service quality at Varsity Colleges in Durban North and Westville students' perceptions. Masters, Durban University of Technology. Available: http://hdl.handle.net/10321/684 (Accessed 03 January 2023).

Dursun, T., Oskaybaş, K. and Gökmen, C. 2013. The Quality Of Service Of The Distance Education. *Procedia - Social and Behavioral Sciences*, 103: 1133-1151.

Edvardsson, B. 1998. Service quality improvement. *Managing service quality: an International Journal*,

Famiyeh, S., Asante-Darko, D. and Kwarteng, A. 2018. Service quality, customer satisfaction, and loyalty in the banking sector. *International Journal of Quality & Reliability Management*, 35 (8): 1546-1567.

Farooq, M., Khalil-Ur-Rehman, F., Tijjani, A. D., Younas, W., Sajjad, S. and Zreen, A. 2019. Service quality analysis of private universities libraries in Malaysia in the era of transformative marketing. *International Journal for Quality Research*, 13 (2): 269-284.

Farooq, M. S., Salam, M., Fayolle, A., Jaafar, N. and Ayupp, K. 2018. Impact of service quality on customer satisfaction in Malaysia airlines: A PLS-SEM approach. *Journal of Air Transport Management* 67: 169-180. Available: https://doi.org/10.1016/j.jairtraman.2017.12.008 (Accessed 16 January 2023).

Fasnacht, D. and Fasnacht, D. 2018. *Open innovation in the financial services*. Springer.

Feng, X., Zhu, J., Hua, Z., Zhou, Q., Shi, A., Song, T., Yao, S., Chen, R., Wei, W. and Zhou, J. 2022. Satisfaction in population-based cancer screening in a Chinese rural high-risk population: the Yangzhong early diagnosis and treatment of upper gastrointestinal cancer. *BMC Health Services Research*, 22 (1): 1-12.

Flake, J. K., Davidson, I. J., Wong, O. and Pek, J. 2022. Construct validity and the validity of replication studies: A systematic review. *American Psychologist*, 77 (4): 576.

Forero, R., Nahidi, S., De Costa, J., Mohsin, M., Fitzgerald, G., Gibson, N., McCarthy, S. and Aboagye-Sarfo, P. 2018. Application of four-dimension criteria to assess rigour of qualitative research in emergency medicine. *BMC health services research*, 18 (1): 1-11.

Freiman, J. A., Chalmers, T. C., Smith, H. A. and Kuebler, R. R. 2019. The importance of beta, the type II error, and sample size in the design and interpretation of the randomized controlled trial: survey of two sets of "negative" trials. In: *Medical uses of statistics*. CRC Press, 357-389.

Galanakis, A. and Goula, A. 2022. Evaluation of the quality of the nursing services of an Athens public general hospital using the SERVQUAL model. *Archives of Hellenic Medicine* (Article), 39(2): 227-235. Available: https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=a9h&AN=156561631&site=ehost-live&scope=site&custid=s5210036 (Accessed 03 January 2023).

Garatsa, C. and Dlamini, B. 2021. Factors influencing the adoption and implementation of customer relationship management strategies by small and medium enterprises in KwaZulu-Natal. *International Journal of Entrepreneurship* 25: 1-18. Available: https://www.proquest.com/openview/f3656627b102a7f71746c491a152a731/1?cbl=29727&pq-origsite=gscholar (Accessed 17 January 2023).

Ghosh, D., Mehta, P. and Avittathur, B. 2021. Supply chain capabilities and competitiveness of high-tech manufacturing start-ups in India. *Benchmarking: An International Journal*, 28 (5): 1783-1808.

Godeiro, D. P. d. O., Dantas, M. L. R., Silva, D. C. d. and Celestino, M. d. S. 2018. Application of importance and performance matrix to assess the quality of services provided by business incubators. *Iberoamerican Journal of Entrepreneurship and Small Business* 7(2): 01-30. Available: https://doi.org/10.14211/regepe.v7i3.704 (Accessed 17 January 2023).

Golshan, S., Feizy, T., Tavasoli, S. and Basiri, A. 2019. Service quality and urolithiasis patient adherence. *International Journal of Health Care Quality Assurance*, 32 (1): 2-10.

Govender, V. 2017. Consumer protection and service delivery by the retail industry in the greater Durban area The legal implications of the Consumer Protection Act 68 of 2008. Masters, Durban UNiversity of Technology. Available: http://hdl.handle.net/10321/2645 (Accessed 02 January 2023).

Guillén Perales, A., Liébana-Cabanillas, F., Sánchez-Fernández, J. and Herrera, L. J. 2020. Assessing university students' perception of academic quality using machine learning. *Applied Computing and Informatics*, ahead-of-print (ahead-of-print)

Hall, R. E. and Woodward, S. E. 2010. The burden of the nondiversifiable risk of entrepreneurship. *American Economic Review*, 100 (3): 1163-1194.

Hamari, J., Hanner, N. and Koivisto, J. 2017. Service quality explains why people use freemium services but not if they go premium: An empirical study in free-to-play games. *International Journal of Information Management*, 37 (1, Part A): 1449-1459.

Harper-Anderson, E. and Lewis, D. A. 2018. What makes business incubation work? Measuring the influence of incubator quality and regional capacity on incubator outcomes. *Economic Development Quarterly* 32(1): 60-77. Available: https://doi.org/10.1177/0891242417741961 (Accessed 16 January 2023).

Hausberg, J. P. and Korreck, S. 2021. *Business incubators and accelerators: a co-citation analysis-based, systematic literature review* Northampton

Massachusetts: Edward Elgar Publishing Limited. Available: https://doi.org/10.4337/9781788974783.00009 (Accessed 16 January 2023).

Hewitt, L. M. and Van Rensburg, L. J. J. 2020. The role of business incubators in creating sustainable small and medium enterprises. *The Southern African Journal of Entrepreneurship and Small Business Management*, 12 (1): 9.

Hooda, M. and Jain, A. 2018. Service quality model of higher education: On developing nation. *SCMS Journal of Indian Management*, 15 (4): 107-115.

Joshi, A., Kale, S., Chandel, S. and Pal, D. K. 2015. Likert scale: Explored and explained. *British journal of applied science & technology* 7(4): 396. Available: 10.9734/BJAST/2015/14975 (Accessed 17 January 2023).

Kadirov, D., Tjiptono, F. and Fam, K.-S. 2020. Halal service research: Definition, domain and dynamics.

Kassim, N. M., Bogari, N. and Zain, M. 2015. FEMALE STUDENTS' PERCEPTION OF SERVICE QUALITY IN A GENDER-SEGREGATED COLLEGE ENVIRONMENT. *Social Behavior & Personality: an international journal*, 43 (6): 921-930.

Khoo, S., Ha, H. and McGregor, S. L. T. 2017. Service quality and student/customer satisfaction in the private tertiary education sector in Singapore. *International Journal of Educational Management* 31(4): 430-444. Available: https://doi.org/10.1108/IJEM-09-2015-0121 (Accessed 17 January 2023).

Kirzner, I. M. 1997. Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of economic Literature*, 35 (1): 60-85.

Klasen, S. 1997. Poverty, Inequality and Deprivation in South Africa: An Analysis of the 1993 SALDRU Survey. *Social Indicators Research* 41(1): 51-94. Available: https://doi.org/10.1023/A:1006892216864 (Accessed 17 January 2021).

Konerding, U., Bowen, T., Elkhuizen, S. G., Faubel, R., Forte, P., Karampli, E., Malmström, T., Pavi, E. and Torkki, P. 2019. Development of a universal short patient satisfaction questionnaire on the basis of SERVQUAL: Psychometric analyses with

data of diabetes and stroke patients from six different European countries. *PLoS ONE*, 14 (10): 1-24.

Kost, R. G. and da Rosa, J. C. 2018. Impact of survey length and compensation on validity, reliability, and sample characteristics for ultrashort-, short-, and long-research participant perception surveys. *Journal of clinical and translational science*, 2 (1): 31-37.

Kötting, M. 2020. Corporate incubators as knowledge brokers between business units and ventures: a systematic review and avenues for future research. *European Journal of Innovation Management*, 23 (3): 474-499.

Kumar, A. and Mahajan, P. 2019. Evaluating library service quality of University of Kashmir: a LibQUAL+ survey. *Performance Measurement and Metrics*,

Lakens, D. 2022. Sample size justification. *Collabra: Psychology*, 8 (1): 33267.

Lamine, W., Mian, S., Fayolle, A., Wright, M., Klofsten, M. and Etzkowitz, H. 2018. Technology business incubation mechanisms and sustainable regional development. *The Journal of Technology Transfer*, 43: 1121-1141.

Le Tellier, M., Berrah, L., Stutz, B., Audy, J.-F. and Barnabé, S. 2019. Towards sustainable business parks: A literature review and a systemic model. *Journal of cleaner production*, 216: 129-138.

Ledwaba, L. S. 2020. Measuring the quality of internet connectivity service rendered to South African Public Libraries. *Mousaion*, 38 (4): 1-20.

Letsoalo, M. E. and Mpwanya, M. F. 2019. Relationship between service quality, customer satisfaction and behavioural intentions in South Africa's mobile telecommunication industry. *African Journal of Business and Economic Research*, 14 (2): 67-89.

Lin, H. C., Xirasagar, S. and Laditka, J. N. 2004. Patient perceptions of service quality in group versus solo practice clinics. *International Journal for Quality in Health Care*, 16 (6): 437-445.

Lomendra, V., Sharmila, P., Roubina T. D, J., Ganess, D. and Meh Zabeen, S. N. 2019. ASSESSING THE IMPACT OF SERVICE QUALITY DIMENSIONS ON CUSTOMER SATISFACTION IN COMMERCIAL BANKS OF MAURITIUS. *Studies in Business & Economics*, 14 (1): 259-270.

Lose, T. 2016. The role of business incubators in facilitating the entrepreneurial skills requirements of small and medium size enterprises in the Cape metropolitan area, South Africa. MTech, Cape Peninsula University of Technology. Available: http://hdl.handle.net/20.500.11838/2049 (Accessed 17 January 2023).

Lose, T. 2019. A framework for the effective creation of business incubators in South Africa. PHD, Vaal University of Technology. Available: https://www.researchgate.net/publication/337543613_A_FRAMEWORK_FOR_THE_EFFECTIVE_CREATION_OF_BUSINESS_INCUBATORS_IN_SOUTH_AFRICA_by

_Thobekani_Lose?enrichId=rgreq-84df731c5a60314c942f13ba35169758-XXX&enrichSource=Y292ZXJQYWdlOzMzNzU0MzYxMztBUzo4Mjk0NzM5MjI0ODYyNzRAMTU3NDc3MzQwMjE2Mw%3D%3D&el=1_x_2&_esc=publicationCoverPdf (Accessed 02 January 2023).

Lukeš, M., Longo, M. C. and Zouhar, J. 2019. Do business incubators really enhance entrepreneurial growth? Evidence from a large sample of innovative Italian start-ups. *Technovation*, 82: 25-34.

Ma, P., Yao, N. and Yang, X. 2021. Service Quality Evaluation of Terminal Express Delivery Based on an Integrated SERVQUAL-AHP-TOPSIS Approach. *Mathematical Problems in Engineering*: 1-10.

Mackay, N. and Major, R. K. 2017. Predictors of customer loyalty in the South African retail banking industry. *Journal of Contemporary Management*, 14 (1): 1194-1224.

Madlala, T. 2018. Profiling and analysis of business incubation support services in relation to rural enterprise development: The case of South Africa. *Skills at Work: Theory and Practice Journal* 9(1): 45-85. Available: https://hdl.handle.net/10520/EJC-16d30e978e (Accessed 17 January 2023).

Makoe, M. and Nsamba, A. 2019. The gap between student perceptions and expectations of quality support services at the University of South Africa. *American Journal of Distance Education*, 33 (2): 132-141.

Mantey, N. O. and Naidoo, V. 2017. Interplay between air passengers' service quality, satisfaction, loyalty and loyalty programmes in South African owned airlines. *Acta Commercii*, 17 (1): 1-9.

Mason, R. B., Mbambo, S. N. and Pillay, M. A. 2018. Service quality at technical and vocational education and training colleges: Perception according to demographic factors. *Journal of Technical Education and Training*, 10 (1): 15-29.

Matthews, B. L. and Daigle, J. 2019. Bridging the dichotomous gap between expectations and perceptions in quantifying hospice care quality. *Health Marketing Quarterly*, 36 (3): 236-253.

Maxwell, J. A. 2021. Why qualitative methods are necessary for generalization. *Qualitative Psychology*, 8 (1): 111.

Mbise, E. R. and Tuninga, R. S. J. 2016. Measuring business schools' service quality in an emerging market using an extended SERVQUAL instrument. *South African Journal of Business Management*, 47 (1): 61-74.

McConachie, H., Mason, D., Parr, J. R., Garland, D., Wilson, C. and Rodgers, J. 2018. Enhancing the validity of a quality of life measure for autistic people. *Journal of autism and developmental disorders*, 48: 1596-1611.

Mnguni, A. 2018. The development and sustainability of small and medium enterprises: The role of the Department of Small Business Development. North-West University.

Modise, J. M., Taylor, D. and Raga, K. 2020. Client service delivery in the South African Police Service's Community Service Centres in the Kimberley cluster: A critical evaluation. *Just Africa*, 5 (2): 51-64.

Mosimanegape, P., Jaiyeoba, O., Iwu, C. G. and Chekula-Mahama, C. 2020a. Examining the relationship between service quality and customer satisfaction in the public service. The case of Botswana. *WSEAS Transactions on Business and Economics*, 17: 579-593.

Mosimanegape, P., Jaiyeoba, O. O., Iwu, C. G. and Chekula-Mahama, C. 2020b. Examining the relationship between service quality and customer satisfaction in the public service. The case of Botswana. *WSEAS Transactions on Business and Economics*,

Mpanza, N. M., Green, P., Sentoo, N. and Proches, C. N. G. 2019. Examining the service quality of administrative practices in Technical Vocational Education and Training (TVET) Colleges in South Africa. *African Journal of Business and Economic Research*, 14 (2): 167-185.

Msosa, S. K. 2019. Service failure and service recovery strategies in the context of higher education. PHD, Durban University of Technology. Available: http://hdl.handle.net/10321/3325 (Accessed 03 January 2023).

Mufudza, T. and Naidoo, V. 2018. Customer perceptions and expectations of medical insurance service quality rendered by companies in Zimbabwe. *Journal of Contemporary Management*, 15 (1): 48-77.

Mukucha, P., Manyika, T., Madhuku, G. and Chari, F. 2020. The effects of business process outsourcing on the quality of catering services in tertiary education industry in Zimbabwe. *Cogent Business & Management*, 7 (1): 1741314.

Mushunje, M. and Beer, E. D. 2021. Modelling Perceptions of Community Information Centres: Experiences From Zimbabwe. *Journal of Public Administration*, 56 (4.1): 1052-1068.

Nam, J.-H. and Lee, T. J. 2011. Foreign travelers' satisfaction with traditional Korean restaurants. *International Journal of Hospitality Management*, 30 (4): 982-989.

Nardi, P. M. 2018. *Doing survey research: A guide to quantitative methods*. Routledge.

Naudé, C., Henrico, A. and Staden, L. V. 2022. Service quality in the fast-food franchise industry in Gauteng. *The Retail and Marketing Review*, 18 (2): 150-165.

Ndadziyira, T. 2017. Brand preference for mobile phones among students at a selected higher education institution. MBA, Durban University of Technology. Available: http://hdl.handle.net/10321/2562 (Accessed 02 January 2023).

Ndayizigamiye, P. and Khoase, R. G. 2018. Inhibitors of the adoption of e-commerce by SMMES in two South African cities. *International Journal of eBusiness and eGovernment Studies*, 10 (1): 51-66.

Ndlovu, M. V. 2018. Co-branding through soccer in Kwazulu-Natal, South Africa. PHD, Durban University of Technology. Available: http://hdl.handle.net/10321/3131 (Accessed 02 January 2023).

Neumeyer, X., Santos, S. C. and Morris, M. H. 2019. Who is left out: exploring social boundaries in entrepreneurial ecosystems. *The Journal of Technology Transfer*, 44: 462-484.

Ngoma, M., Ruqqaiya, N., Moya, M. B. and Ntale, P. D. 2020. Customer relationship management technologies, service quality and customer loyalty in the hotel industry in Uganda. *Journal of Management & Administration*, 2020 (2): 19-48.

Nunkoo, R., Teeroovengadum, V., Ringle, C. M. and Sunnassee, V. 2020. Service quality and customer satisfaction: The moderating effects of hotel star rating. *International Journal of Hospitality Management*, 91: 102414.

Ograjenšek, I. and Gal, I. 2018. The megaclass as a service production system and the challenge of facilitating its continuous quality improvement: Towards a research agenda in a complex domain. *Quality and Reliability Engineering International*, 34 (7): 1475-1490.

Oschman, J. J. 2019. A conceptual framework implementing an AS9100 quality management system for the aerospace industry. *South African Journal of Industrial Engineering*, 30 (2): 1-16.

Ouma-Mugabe, J., Chan, K.-Y. and Marais, H. C. 2021. A critical review of policy instruments for promoting innovation in manufacturing small and medium enterprises (SMEs) in South Africa. *Entrepreneurship, Technology Commercialisation, and Innovation Policy in Africa*: 237-258.

Pakurár, M., Haddad, H., Nagy, J., Popp, J. and Oláh, J. 2019. The service quality dimensions that affect customer satisfaction in the Jordanian banking sector. *Sustainability (Switzerland)*, 11 (4)

Palese, B. and Usai, A. 2018. The relative importance of service quality dimensions in E-commerce experiences. *International Journal of Information Management*, 40: 132-140.

Pallant, J. 2020. *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. McGraw-hill education (UK).

Patil, A. N., Mariappan, V., D'Souza, L. C. and Nazareth, R. J. 2019. Quality assessment of technical education using SERVQUAL: S/N ratio and grey relation analysis. *International Journal of Performability Engineering*, 15 (11): 2843-2851.

Peitzika, E., Chatzi, S. and Kissa, D. 2020. Service quality expectations in the fitness center context: A validation of the expectations component of the SERVQUAL scale in Greece. *Services Marketing Quarterly*, 41 (2): 89-104.

Ramya, N., Kowsalya, A. and Dharanipriya, K. 2019. Service quality and its dimensions. *EPRA International Journal of Research & Development*, 4 (2)

Raza, M. M., Shah, A. A., Syeda, Z. F. and Sarwar, M. 2019. Education Service Quality and Management Practices at Universities of Pakistan: Perspectives of Service Delivery Staff. *NICE Research Journal*: 183-214.

Resnick, S. and Griffiths, M. 2012. Delivering Service Quality in Alcohol Treatment: A Qualitative Comparison of Public and Private Treatment Centres by Service Users and Service Providers. *International Journal of Mental Health & Addiction*, 10 (2): 185-196.

Rita, P., Oliveira, T. and Farisa, A. 2019. The impact of e-service quality and customer satisfaction on customer behavior in online shopping. *Heliyon*, 5 (10): e02690.

Roundy, P. T. 2021. Leadership in startup communities: how incubator leaders develop a regional entrepreneurial ecosystem. *Journal of Management Development*,

Sansone, G., Andreotti, P., Colombelli, A. and Landoni, P. 2020. Are social incubators different from other incubators? Evidence from Italy. *Technological Forecasting and Social Change*, 158: 120132.

Sanyal, S. and Hisam, M. W. 2018. The role of business incubators in creating an entrepreneurial ecosystem: A study of the Sultanate of Oman. *Indian Journal of Commerce and Management Studies*, 9 (3): 10-17.

Serumaga-Zake, P. A. E. 2017. The role of user satisfaction in implementing a Business Intelligence System. *South African Journal of Information Management*, 19 (1): 1-8.

Shehada, R. Y., El Talla, S. A., Al Shobaki, M. J. and Abu-Naser, S. S. 2020. Performance improvement and its impact on the application of the balanced scorecard in business incubators.

Shorfuzzaman, M., Hossain, M. S., Nazir, A., Muhammad, G. and Alamri, A. 2019. Harnessing the power of big data analytics in the cloud to support learning analytics in mobile learning environment. *Computers in Human behavior*, 92: 578-588.

Sileyew, K. J. 2019. *Research design and methodology*. IntechOpen Rijeka.

Songling, Y., Ishtiaq, M., Anwar, M. and Ahmed, H. 2018. The role of government support in sustainable competitive position and firm performance. *Sustainability*, 10 (10): 3495.

Sultana, N. and Gupta, N. 2020. Service quality: Business Incubation and supportive policy intervention. *SCMS Journal of Indian Management*, 17 (4): 30-37.

Surana, K., Singh, A. and Sagar, A. D. 2020. Strengthening science, technology, and innovation-based incubators to help achieve Sustainable Development Goals: Lessons from India. *Technological Forecasting and Social Change*, 157: 120057.

Suting, A., Lal, V. and Varaprasad, G. 2020. Higher education quality assessment using SERVQUAL. In: Proceedings of *2020 International Conference on System, Computation, Automation and Networking, ICSCAN 2020* (Conference Paper). Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-

85098246672&doi=10.1109%2fICSCAN49426.2020.9262310&partnerID=40&md5=3a78c0162369cfd7b152f99bcc8db7de (Accessed

Taherdoost, H. 2019. What is the best response scale for survey and questionnaire design; review of different lengths of rating scale/attitude scale/Likert scale. *Hamed Taherdoost*: 1-10.

Tala, L. 2021. South Africa's Lending Infrastructure: Does it Facilitate or Constrain Access to Credit Finance by Small and Medium Enterprises (SMEs)? *Journal of Public Administration*, 56 (2): 276-287.

Thurik, A. R., Audretsch, D. B., Block, J. H., Burke, A., Carree, M. A., Dejardin, M., Rietveld, C. A., Sanders, M., Stephan, U. and Wiklund, J. 2023. The impact of entrepreneurship research on other academic fields. *Small Business Economics*: 1-25.

Torun, M., Peconick, L., Sobreiro, V., Kimura, H. and Pique, J. 2018. Assessing business incubation: A review on benchmarking. *International Journal of Innovation Studies*, 2 (3): 91-100.

Ullah, M. N. 2019. Impact of service quality on patient satisfaction and loyalty in Bangladeshi hospitals. *Int. J. Bus. Psychol*, 2: 89-94.

Urbano, D., Aparicio, S. and Audretsch, D. 2019. Twenty-five years of research on institutions, entrepreneurship, and economic growth: what has been learned? *Small Business Economics*, 53: 21-49.

Vardhan, H. G. 2021. Customers' Service Quality Expectations From Quick Service Restaurants. *The Retail and Marketing Review*, 17 (1): 79-88.

Vetri Selvi, M. 2018. Service quality (Servqual) on business and management student perceived and desired satisfaction: The antecedents with private higher education institutions in sikkim state, India. *International Journal of Mechanical Engineering and Technology*, 9 (1): 670-679.

Viljoen, K. L., Gavaza, B. K. and Cilliers, L. 2019. The influence of social media service quality on client loyalty in the South African banking industry. *Acta Commercii*, 19 (1): 1-10.

Vojtek, N. and Smudja, B. 2019. IMPROVING THE PASSENGER FEEDBACK PROCESS IN AIRLINE INDUSTRY. *International Journal for Traffic & Transport Engineering*, 9 (2): 255-269.

Watkins, M. W. 2018. Exploratory factor analysis: A guide to best practice. *Journal of Black Psychology*, 44 (3): 219-246.

WĘGŁOwski, P., ZwoliŃSka, D., Karniej, P., NocuŃ-Wasilewska, K. and Polak-Jonkisz, D. 2016. The quality of medical services in a subjective assessment of hospitalized patients using the SERVQUAL method – a pilot study. *Family Medicine & Primary Care Review*, (3): 359-363.

Wen, K., Alessa, N., Marah, K., Kyeremeh, K., Ansah, E. S. and Tawiah, V. 2023. The Impact of Corporate Governance and International Orientation on Firm Performance in SMEs: Evidence from a Developing Country. *Sustainability*, 15 (6): 5576.

Xiao, L. and North, D. 2018. The role of Technological Business Incubators in supporting business innovation in China: a case of regional adaptability? *Entrepreneurship & Regional Development*, 30 (1-2): 29-57.

Yilmaz, V., Ari, E. and Gürbüz, H. 2018. Investigating the relationship between service quality dimensions, customer satisfaction and loyalty in Turkish banking sector: An application of structural equation model. *International journal of bank marketing*, 36 (3): 423-440.

Yong-Sik, H. and Yung Kyun, C. 2019. Higher education service quality and student satisfaction, institutional image, and behavioral intention. *Social Behavior & Personality: an international journal*, 47 (2): 1-12.

Yousapronpaiboon, K. 2014. SERVQUAL: Measuring higher education service quality in Thailand. *Procedia-Social and Behavioral Sciences*, 116: 1088-1095.

Yu, X. 2017. The application of marketing intelligence for the survival, growth and success of chinese entrepreneurs in KZN. PHD, Durban University of Technology. Available: http://hdl.handle.net/10321/2639 (Accessed 03 January 2023).

Zariman, N. F. M., Humaidi, N. and Abd Rashid, M. H. 2022. Mobile commerce applications service quality in enhancing customer loyalty intention: mediating role of customer satisfaction. *Journal of Financial Services Marketing*,

Zeithaml, V. A. 2018. How do you measure service quality. *Mapping Out Marketing: Navigation Lessons from the Ivory Trenches*, 35 (0.20): 0.80.

Zhang, R., Jun, M. and Palacios, S. 2021. M-shopping service quality dimensions and their effects on customer trust and loyalty: an empirical study. *International Journal of Quality & Reliability Management* ahead-of-print(ahead-of-print). Available: https://doi.org/10.1108/IJQRM-11-2020-0374 (Accessed 03 January 2023).

Zhang, S., Hu, Z., Li, X. and Ren, A. 2022a. The impact of service principal (service robot vs. human staff) on service quality: The mediating role of service principal attribute. *Journal of Hospitality and Tourism Management* (52): 170-183. Available: https://doi.org/10.1016/j.jhtm.2022.06.014 (Accessed 03 January 2023).

Zhang, S., Hu, Z., Li, X. and Ren, A. 2022b. The impact of service principal (service robot vs. human staff) on service quality: The mediating role of service principal attribute. *Journal of Hospitality and Tourism Management* 52: 170-183. Available: https://www.sciencedirect.com/science/article/pii/S1447677022001188 (Accessed 28 December 2022).

Zhou, Z., Ren, J., Liu, X. and Pardalos, P. M. 2022. Collaborating product development and maintenance service: quality incentive with inspection and warranty strategies. *International Journal of Production Research*: 1-18.

Ziyad, A., Zia Ur, R., Batool, Z. and Khan, A. H. 2020. Influence of service excellence on consumer satisfaction of ridesharing industry. *International Journal for Traffic & Transport Engineering* (Article), 10(4): 468-481. Available: https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=a9h&AN=146313565&site=ehost-live&scope=site&custid=s5210036 (Accessed 03 January 2023).

Zouari, G. and Abdelhedi, M. 2021. Customer satisfaction in the digital era: evidence from Islamic banking. *Journal of Innovation and Entrepreneurship* (Article), 10(1): 01-18. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85101809478&doi=10.1186%2fs13731-021-00151-x&partnerID=40&md5=c92fcedaf6fbf56104f4866549fa5096

(Accessed 03 January 2023).

Zun, A. B., Ibrahim, M. I. and Hamid, A. A. 2018. Level of satisfaction on service quality dimensions based on SERVQUAL model among patients attending 1 Malaysia clinic in Kota Bharu, Malaysia. *Oman Medical Journal* (Article), 33(5): 416-422. Available: https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=a9h&AN=131700482&site=ehost-live&scope=site&custid=s5210036 (Accessed 03 January 2023).

Zutshi, A., Mendy, J., Sharma, G. D., Thomas, A. and Sarker, T. 2021. From challenges to creativity: enhancing SMEs' resilience in the context of COVID-19. *Sustainability* 13(12): 6542. Available: https://doi.org/10.3390/su13126542 (Accessed 15 January 2015).

Annexure 1: Consent letter

LETTER OF CONSENT

Full Title of the Study: Service Quality at the Durban University of Technology, Centre for Social Entrepreneurship Rapid Incubator (DUT CSERI)

Names of Researcher/s: Solomon Nyamurima

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Solomon Nyamurima, about the nature, conduct, benefits, and risks of this study - Research Ethics Clearance Number: _____,
- I have also received, read and understood the above-written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

_____	_____	_____	_____
Full Name of Participant	**Date**	**Time**	**Signature**

I, Solomon Nyamurima herewith confirm that the above participant has been fully informed about the nature, conduct, and risks of the above study.

Solomon Nyamurima	**15 June 2023**	_____
Full Name of Researcher	**Date**	**Signature**

_____	_____	_____
Full Name of Witness (If applicable)	**Date**	**Signature**

_____	_____	_____
Full Name of Legal Guardian (If applicable)	**Date**	**Signature**

Annexure 2: Letter of information

LETTER OF INFORMATION

Title of the Research Study: Service quality at the Durban University of Technology, Centre for Social Entrepreneurship Rapid Incubator (DUT CSERI)

Principal Investigator/s/researcher: Solomon Nyamurima, (CIS Professional Post-Graduate Qualification: Company secretarial and Governance practice NQF Level 8

Co-Investigator/s/supervisor/s: Professor Manduth Ramchander, PHD

Brief Introduction and Purpose of the Study: This survey aims to evaluate the DUT CSERI's service quality and its impact on the performance and success of the SMMEs it serves. Despite the potential advantages of business incubators, little is known about the service quality provided by these incubators and how it influences the performance and success of the SMMEs they support. The purpose of this study is to fill this information gap by evaluating the service quality of a university-based business incubator and studying the relationship between service quality and SMMEs' performance. In addition, the study will offer insights into the perceptions and experiences of service quality among incubator clients and staff, which can inform the design and operation of university-based business incubators in order to better support the growth of SMMEs.

Dear Entrepreneur

My name is Solomon Nyamurima, and I am a Master of Business Administration student at Durban University of Technology (DUT). I am conducting research to evaluate the service quality supplied by DUT CSERI and to remedy any service quality gaps that may be discovered. This research is part of my MBA requirements at DUT.

You were picked on purpose, and I would like to ask for your help in completing this questionnaire. If you want to engage in the survey, you are free to ask as many questions as you like in order to properly comprehend the research. You have the right to discuss the study with your family and friends, but you are not required to commit at this time. You will be given a copy of the information letter to take home.

The study's goal is to evaluate service quality at Durban University of Technology's Centre for Social Entrepreneurship Rapid Incubator (DUT CSERI). The study's aims are to establish SMMEs' expectations of service quality, SMMEs' perceptions of service quality, and to identify and address service quality deficiencies at DUT CSERI. Please take your time reading and comprehending the questionnaire, which should take no more than 10 minutes to complete. You are also asked to be honest and accurate in your responses, since this information may help the incubator improve its services and better serve you. The questionnaire would be electronically distributed using Survey Monkey, and SMMEs would fill it out online.

You may be interested to know that the study has no unpredictable risks and is fully voluntary. However, if you are uncomfortable answering any of the questions, you can stop answering the questionnaire at any time.

You may withdraw from the study at any time for any reason, including noncompliance, illness, or adverse effects. Your removal from the study, on the other hand, will have no negative implications.

You may acquire insight into service quality measurement, its significance, and the benefits of continuously increasing service quality. You will not be compensated for participating in the research, and you are not expected to cover any expenditures associated with the study; this is solely the responsibility of the researcher.

Your survey responses will be kept absolutely confidential, and data from this study will only be reported in aggregate. Your information will be encrypted and kept private. The Durban University of Technology will protect confidentiality and anonymity. All information gathered will be stored in a secure location for five years before being destroyed. Under tight conditions, only authorised individuals will have access to the data.

Persons to contact in the Event of Any Problems or Queries:

Supervisor: Professor Manduth Ramchander

Please contact the researcher (tell no. 031 373 5747), my supervisor (tell no. 031 373 5288)) or the DUT-Institutional Research Ethics Administrator on 031 373 2375. Complaints can be reported to the Acting Director: Research and Postgraduate Support on researchdirector@dut.ac.za

Thank you for your time and participation

Yours sincerely

Solomon Nyamurima (researcher)

Annexure 3: Questionnaire

SECTION A: GENERAL INFORMATION

INSTRUCTIONS TO RESPONDENTS:

1. **Please select ONLY ONE response with a tick □ for each question.**
2. **Answer ALL the pre-coded questions in this section.**
3. **Please DO NOT leave any question blank.**

1. Please indicate whether you are the owner or manager.

1.1	Owner	1
1.2	Manager	2

2. Please indicate which ONE of the following SECTORS is applicable to you:

2.1	Manufacturing	1
2.2	Retail	2
2.3	Telecommunications	3
2.4	Finance	4
2.5	Transport	5
2.6	Other	6

3. Please indicate your gender:

3.1	Male	1
3.2	Female	2

4. Please indicate number of employees

4.1	Less than 20 employees	1
4.2	21 to 50 employees	2
4.3	51 to 100 employees	3
4.4	101 to 150 employees	4
4.5	151 to 200 employees	5

5. For how long have you been owning/managing the business.

5.1	1-5 years	1
5.2	6-10 years	2
5.3	11-15 years	3
5.4	16-20 years	4
5.5	21-25 years	5
5.6	>26 years	6

6. Please indicate your highest level of qualification:

6.1	Matric/ Certificate	1
6.2	Diploma/Bachelor's degree	2
6.3	Honours degree / B.Tech	3
6.4	Masters	4
6.5	Doctorate	5
6.6	Other	6

INSTRUCTIONS TO RESPONDENTS:

Please select ONLY ONE response with a tick □ for each Likert Scale statement below.

1. **Answer ALL the pre-coded statements in this section.**
2. **Please DO NOT leave any statement blank.**

KEY: SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree

	Service expectations of the DUT CSERI	SD	D	N	A	SA
1	An excellent business incubator will have modern-looking equipment.	1	2	3	4	5
2	The physical facilities at the business incubator will be visually appealing	1	2	3	4	5
3	Employees at the business incubator will appear professionally dressed	1	2	3	4	5
4	Materials associated with the service (promotional brochures, invoices etc.) will be visually appealing at an excellent business incubator	1	2	3	4	5
5	When excellent business incubator promises to do something by a certain time, they will do so	1	2	3	4	5
6	When a customer has a problem, excellent business incubators will show a sincere interest in solving it	1	2	3	4	5
7	Excellent business incubators will perform the service right first time	1	2	3	4	5
8	Excellent business incubators will provide their services at the time they promise to do so	1	2	3	4	5
9	Excellent business incubators will insist on error free records	1	2	3	4	5
10	Employees in excellent business incubators will tell customers exactly when services will be performed.	1	2	3	4	5
11	Employees in excellent business incubators will give. prompt service to customers	1	2	3	4	5
12	Employees in excellent business incubators will always be willing to help customers	1	2	3	4	5
13	Employees in excellent business incubators will never be too busy to respond to customers' requests	1	2	3	4	5
14	The behaviour of employees in excellent business incubators will instil confidence in customers	1	2	3	4	5
15	Customers of excellent business incubators will feel safe in their transactions	1	2	3	4	5
16	Employees in excellent business incubators will be consistently courteous to customers	1	2	3	4	5
17	Employees in excellent business incubators will have knowledge to answer customers' questions	1	2	3	4	5
18	Excellent business incubators will give customers individual attention	1	2	3	4	5
19	Excellent business incubators will have operating hours convenient to all their customers	1	2	3	4	5
20	Excellent business incubators will have employees who give customers personal attention	1	2	3	4	5
21	Excellent business incubators will have the customers' best interests at heart	1	2	3	4	5
22	Employees in excellent business incubators will understand the needs of their customers	1	2	3	4	5

	Service perceptions of the DUT CSERI	**SD**	**D**	**N**	**A**	**SA**
1	DUT CSERI has modern-looking equipment	1	2	3	4	5
2	The physical facilities at the DUT CSERI are visually appealing	1	2	3	4	5
3	Employees at the DUT CSERI are professionally dressed	1	2	3	4	5
4	DUT CSERI materials associated with the service (promotional brochures, invoices, etc.) are visually appealing.	1	2	3	4	5
5	When DUT CSERI promises to do something by a certain time, they will do so	1	2	3	4	5
6	When a customer has a problem, DUT CSERI shows a sincere interest in solving it	1	2	3	4	5
7	DUT CSERI performs the service right the first time	1	2	3	4	5
8	DUT CSERI provide its services at the time they promise to do so	1	2	3	4	5
9	DUT CSERI insists on error-free records	1	2	3	4	5
10	Employees in DUT CSERI tell you exactly when services will be performed	1	2	3	4	5
11	Employees in DUT CSERI give prompt service to you	1	2	3	4	5
12	Employees in the DUT CSERI are always willing to help you	1	2	3	4	5
13	Employees in the DUT CSERI are never too busy to respond to your requests	1	2	3	4	5
14	The behaviour of employees in the DUT CSERI instils confidence in you	1	2	3	4	5
15	You feel safe in your transactions with the DUT CSERI	1	2	3	4	5
16	Employees in the DUT CSERI will be consistently courteous to you	1	2	3	4	5
17	Employees in the DUT CSERI have the knowledge to answer your questions	1	2	3	4	5
18	The DUT CSERI gives you individual attention	1	2	3	4	5
19	The DUT CSERI has operating hours convenient to you	1	2	3	4	5
20	The DUT CSERI has employees who give you personal attention	1	2	3	4	5
21	The DUT CSERI has your best interest at heart	1	2	3	4	5
22	The DUT CSERI understands your needs	1	2	3	4	5

Annexure 4: Gatekeeper permission

Directorate for Research and Postgraduate Support
Durban University of Technology
Open House
P.O. Box 1334, Durban 4000
Tel.: 031-3732576/7
Fax: 031-3732946

12 May 2023

Mr Solomon Nyamurima
c/o Durban University of Technology Business School
Faculty of Management Sciences
Durban University of Technology

Dear Mr Nyamurima

PERMISSION TO CONDUCT RESEARCH AT THE DUT

Your email correspondence in respect of the above refers. I am pleased to inform you that the Institutional Research and Innovation Committee (IRIC) has granted **Gatekeeper Permission** for you to conduct your research "Service quality at the Durban University of Technology, Centre for Social Entrepreneurship Rapid Incubator (DUT CSERI)" at the Durban University of Technology. **Kindly note that this letter must be issued to the IREC for approval before you commence data collection.**

The DUT may impose any other condition it deems appropriate in the circumstances having regard to nature and extent of access to and use of information requested.

Upon completion of your research project, you are requested to share the summary of your key research findings.

Kind regards.
Yours sincerely

DR V GOVENDER
ACTING-DIRECTOR: RESEARCH AND POSTGRADUATE SUPPORT DIRECTORATE

Annexure 5: Ethical Clearance

Institutional Research Ethics Committee
Research and Postgraduate Support Directorate
3rd Floor, Berwyn Court
Gate 1, Steve Biko Campus
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2375
Email: lavishad@dut.ac.za
http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

23 May 2023

Mr S Nyamurima
Unit 77, 101 Morningside Village
80 Fyfe Road
Morningside
Durban
4001

Dear Mr Nyamurima

Service quality at the Durban University of Technology, Centre for Social Entrepreneurship Rapid Incubator (DUT CSERI)
Ethics Clearance Number: IREC 056/23

The DUT-Institutional Research Ethics Committee acknowledges receipt of your notification regarding the piloting of your data collection tool.

Kindly ensure that participants used for the pilot study are not part of the main study.

In addition, the DUT-IREC acknowledges receipt of your gatekeeper permission letter.

Please note that FULL APPROVAL is granted to your research proposal. You may proceed with data collection.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the DUT-IREC according to the DUT-IREC SOP's.

Please note that any deviations from the approved proposal require the approval of the DUT-IREC as outlined in the DUT-IREC SOP's.

It is compulsory for a student or researcher to apply for recertification on an annual basis. The failure to do so will result in withdrawal of ethics clearance. It is the responsibility of the researcher and the supervisor to apply for recertification.

Please note that you are required to submit a Notification of Completion of Study form together with an abstract to the DUT-IREC office on completion of your study.

Yours Sincerely

Prof J K Adam
Chairperson: DUT-IREC

Annexure 6: Language editors' clearance letter

Sury Bisetty Academic Editing Services

The pen is mightier than the sword

To whom it may concern

I edited the mini dissertation, titled: **SERVICE QUALITY AT THE DURBAN UNIVERSITY OF TECHNOLOGY, CENTRE FOR SOCIAL ENTREPRENEURSHIP RAPID INCUBATOR** submitted in partial fulfilment of the requirements for the degree, Master of Business Administration by SOLOMON NYAMURIMA, student number: 22176200.

Professional Language and Technical Editor
05 July 2023

CONTACT DETAILS
Email: surybisetty11@gmail.com
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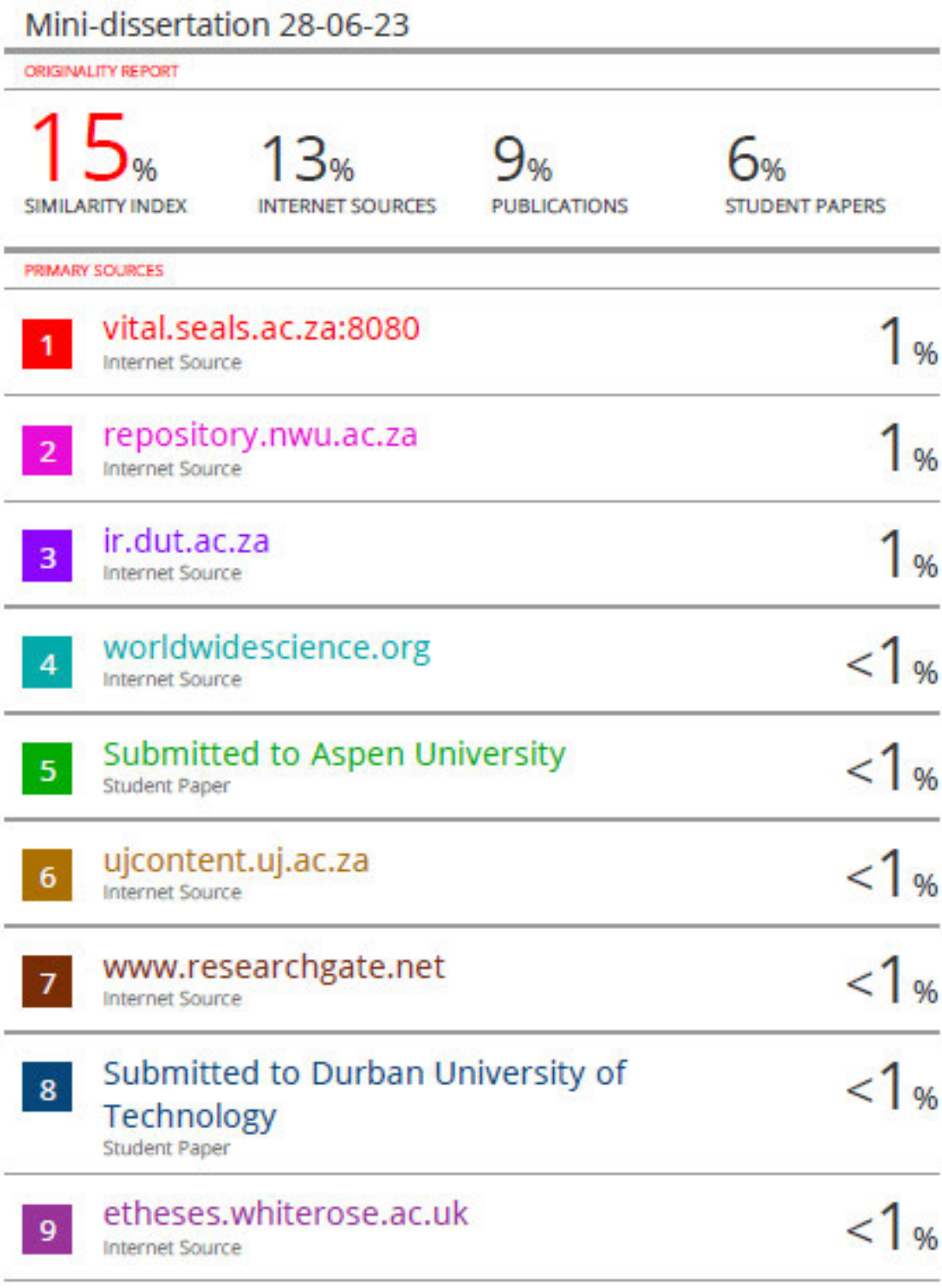
Annexure 7: Turnitin report



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Annexure 8: Ethics training certificate

TRREE

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Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomédicale
Promoting the highest ethical standards in the protection of biomedical research participants

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Ce document atteste que - this document certifies that

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Solomon Nyamurima

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