

# **Influence of Customer Feedback in Driving Service Innovation in the Public Sector**

Student Number: 23003988

A research project submitted to the Gordon Institute of Business Science,  
University of Pretoria, in partial fulfilment of the requirements for the degree of  
Master of Business Administration.

**04 November 2024**

# DECLARATION

I declare that this research project is my work. It is submitted in partial fulfilment of the Master of Business Administration degree requirements at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination at any other University. I further declare that I have obtained the necessary authorisation and consent to conduct this research.

---

Student Number: 23003988

04 November 2024

## **ABSTRACT**

The public sector faces a growing urge to improve its service delivery and organisational outcome, driven by rising customer expectations. This study aimed to acquire a deeper understanding of customer feedback within the context of service innovation in the public sector. Successful implementation of service innovation based on customer feedback in the public sector requires careful consideration of the sector's unique context and tailored needs.

The study employed a qualitative exploratory approach grounded in an interpretivist methodology. Semi-structured interviews were undertaken with twelve participants whose perspectives were analysed using the public service-dominant logic framework. The findings highlighted the impact of customer feedback on several key areas: leadership, collaboration, innovative solutions, strategic alignment and planning, as well as insights and decision-making. From a technological integration standpoint, the study emphasised the importance of value co-creation, the role of AI/ML, operational efficiency, and the need for customisation and adaptability in technology. Additionally, the research underscored the significance of customer input through idea generation, iterative development, and active customer engagement, which is pivotal in driving service innovations within the public sector.

The study's findings contributed to the literature through the combination of customer feedback impact, technological integration, and customer input and consequently developed a conceptual framework for customer-driven service innovation. Furthermore, the managers in the service organisations can use the conceptual framework, and the public sector can use the conceptual framework.

**Keywords:**

Customer feedback, Service innovation, Public Service-Dominant Logic,  
Customer Input, Technological integration

# TABLE OF CONTENTS

<b>DECLARATION .....</b>	<b>1</b>
<b>ABSTRACT.....</b>	<b>2</b>
<b>TABLE OF CONTENTS.....</b>	<b>4</b>
<b>LIST OF TABLES .....</b>	<b>10</b>
<b>LIST OF FIGURES.....</b>	<b>10</b>
<b>LIST OF ACRONYMS.....</b>	<b>11</b>
<b>Chapter 1: Introduction to the Research Problem .....</b>	<b>1</b>
1.1 Introduction .....	1
1.2 Background of Public Sector Service Innovation Importance.....	2
1.3 Research Problem .....	4
1.4 Purpose of the Research .....	5
1.5 Outline of the Report.....	6
<b>Chapter 2: Literature Review.....</b>	<b>8</b>
2.1 Introduction .....	8
2.2 Theoretical Framework.....	8
2.2.1 Public/Service-Dominant Logic .....	8
2.3 Service Innovation in the Public Sector .....	10
2.4 Customer Feedback in Service Innovation.....	13
2.5 Technological Advancement in the Integration of Customer Feedback .....	16
2.5.1 Customer Input Utilisation.....	18
2.6 Chapter Conclusion .....	21
<b>Chapter 3: Research Questions .....</b>	<b>22</b>
3.1 Introduction .....	22
3.2 Research Question One (RQ1) .....	22
3.3 Research Question Two (RQ2) .....	22
3.4 Research Question Three (RQ3).....	23
3.5 Chapter Conclusion .....	23

<b>Chapter 4: Research Methodology .....</b>	<b>25</b>
4.1 Introduction .....	25
4.2 Methodological Choice & Research Design .....	25
4.2.1 Philosophy.....	26
4.2.2 Time Horizon.....	27
4.2.3 Strategy.....	28
4.3 Population.....	28
4.4 Sampling.....	29
4.4.1 Sample Size .....	29
4.4.2 Inclusion Criteria for Sampling .....	30
4.5 Unit of Analysis .....	30
4.6 Measurement Instrument.....	30
4.7 Data Collection .....	31
4.8 Data Analysis.....	32
4.9 Limitations.....	34
4.9.1 Research and Participant Bias.....	34
4.9.2 Time Horizon.....	34
4.9.3 Validity and Reliability .....	35
4.10 Quality Assurance.....	35
4.10.1 Quality and Rigour .....	35
4.10.2 Trustworthiness.....	35
4.10.3 Dependability .....	36
4.10.4 Confirmability/Credibility.....	36
4.11 Ethical Considerations .....	37
4.12 Chapter Conclusion .....	37
<b>Chapter 5: Findings.....</b>	<b>38</b>
5.1 Introduction .....	38
5.2 Interview Participants and Context .....	38
5.3 RQ1: How can Customer Feedback Drive Service Innovation in the Public Sector? .....	41
5.3.1 Insights and Decision-Making .....	41

5.3.2 Strategic Alignment and Planning .....	43
5.3.3 Leadership and Organisational Culture.....	45
5.3.4 Collaboration .....	47
5.3.5 Innovation and Solutions.....	49
5.3.6 RQ1 Summary .....	51
5.4 RQ2: How can Technological Advancements Play a Role in Facilitating the Integration of Customer Feedback for Service Innovation?.....	52
5.4.1 AI and ML in Real-Time Feedback Analysis .....	54
5.4.2 Efficiency and Process Improvement.....	55
5.4.3 Digital Tools .....	56
5.4.4 Value Co-Creation.....	57
5.4.5 Customisation and Adaptability.....	58
5.4.6 Diverse Public Sector Environment.....	58
5.4.7 RQ2 Summary .....	59
5.5 RQ3: How can Customer Input be Used in Innovative Service Solutions and Improvements? .....	60
5.5.1 Idea Generation .....	61
5.5.2 Iterative Developments .....	63
5.5.3 Customer Engagement .....	64
5.5.4 Alignment and Project Management.....	65
5.5.5 RQ3 Summary .....	67
5.6 Chapter Conclusion .....	67
<b>Chapter 6: Discussion .....</b>	<b>69</b>
6.1 Introduction .....	69
6.2 RQ1: How can Customer Feedback Drive Service Innovation in the Public Sector? .....	72
6.2.1 Insight and Decision-making.....	72
6.2.2 Leadership Culture.....	75
6.2.3 Collaboration.....	77
6.2.4 Innovation and Solutions.....	78
6.2.5 Strategic Alignment and Planning.....	79

6.2.6 Summary of the Discussion for RQ1 .....	81
6.3 RQ2: How can Technological Advancements Play a Role in Facilitating the Integration of Customer Feedback for Service Innovation?.....	81
6.3.1 AI/ML Real-time Analysis .....	82
6.3.2 Efficiency and Process Improvement.....	83
6.3.3 Digital Tools .....	85
6.3.4 Value Co-Creation.....	88
6.3.5 Customisation and Adaptability.....	89
6.3.6 Diverse Public Sector Environment.....	90
6.3.7 Summary of the Discussion of RQ2.....	91
6.4 RQ3: How can Customer Input be Used in Innovative Service Solutions and Improvements? .....	92
6.4.1 Customer Input Utilisation .....	92
6.4.2 Idea Generation .....	94
6.4.3 Iterative Development .....	95
6.4.4 Customer Engagement .....	96
6.4.5 Alignment and Project Management.....	97
6.4.6 Summary of the Discussion of RQ3.....	99
6.5 Chapter Conclusion .....	99
<b>Chapter 7: Conclusion and Recommendations .....</b>	<b>101</b>
7.1 Introduction .....	101
7.2 Research Findings.....	102
7.2.1 How Does Customer Feedback Drive Service Innovation .....	102
7.2.2 How can Technological Advancements Play a Role in Facilitating the Integration of Customer Feedback for Service Innovation? .....	104
7.2.3 How can Customer Input be Used in Innovative Service Solutions and Improvements? .....	105
7.3 Conceptual Framework.....	106
7.3.1 Quadrant A: High Customer Feedback and High Service Innovation .....	108
7.3.2 Quadrant B: High Customer Feedback and Low Service Innovation	108

7.3.3 Quadrant C: Low Customer Feedback and Low Service Innovation	108
7.3.4 Quadrant D: Low Customer Feedback and High Service Innovation	109
7.3.5 Summary	109
7.4 Academic Contribution	110
7.5 Implications and Recommendations for Business	111
7.5.1 Enhancing Customer Feedback Systems	111
7.5.1.1 Implication	112
7.5.2 Driving Value through Service Innovation	112
7.5.2.1 Implication	112
7.5.3 Strategic Alignment and Customer-Centric Culture	113
7.5.3.1 Implication	113
7.5.4 Summary	113
7.6 Limitations of the Study	114
7.7 Suggestions for Future Research	114
7.8 Study Conclusion	115
<b>REFERENCES</b>	<b>117</b>
<b>List of Appendices</b>	<b>125</b>
<b>Appendix A: Participant Email Inviting Them to Participate in the Study</b>	<b>126</b>
<b>Appendix B: Informed Consent Form</b>	<b>127</b>
<b>Appendix C: Permission Letter from Organisation</b>	<b>128</b>
<b>Appendix D: Instrument (Interview Guide)</b>	<b>130</b>
<b>Appendix E: Ethics Approval</b>	<b>132</b>
<b>Appendix F: List of Codes</b>	<b>133</b>
<b>Appendix G: Consistency Matrix</b>	<b>139</b>

## **LIST OF TABLES**

Table 5.1: Participants Pseudonyms and Profiles	38
Table 6.1: Mapping of Categories and Theme Formation	69

## **LIST OF FIGURES**

Figure 1.1: Conceptual Framework for the Study	5
Figure 2.1: Public Service Logic Framework	8
Figure 2.2: Customer Feedback Model for Service Performance Improvement	14
Figure 4.1: Code to Theory Model	31
Figure 5.1: Overview of Themes for RQ1	39
Figure 5.2: Overview of Themes for RQ2	52
Figure 5.3: Overview of Themes for RQ3	60
Figure 7.1: Conceptual Framework for Customer-Driven Service Innovation	105

## LIST OF ACRONYMS

A2A	generic-actor
AI	Artificial Intelligence
APIs	Application Programming Interfaces
BI	Business Intelligence
BSAs	Bulk Service Agreements
CRM	customer relationship management
ERP	Enterprise Resource Planning
FPs	foundational premises
GDP	Gross Domestic Product
ICT	Information Communication Technology
IoT	Internet of Things
ISO	International Organization for Standardization
KPI	key performance indicator
ML	machine learning
MS	Microsoft
NPD	new product development
NPS	net promoter score
PSDL	public service-dominant logic
PSI	public service innovation
PSL	public service logic

RQ	Research Question
S-D	Service-dominant
SAP	Company specialising in System Applications and Products in Data Processing
SLAs	service level agreements
SMS	short message service
SOPs	standard operating procedures
Stats SA	Statistics South Africa
WSAs	Water Service Authorities

# CHAPTER 1: INTRODUCTION TO THE RESEARCH PROBLEM

## 1.1 Introduction

The study explores the influence of customer feedback in driving service innovation in the public sector, looking at it from a customer feedback lens, the impact of customer feedback, technology integration, and customer input and their ability to drive service innovation. The study is grounded in a public service-dominant logic (PSDL) framework because service-dominant logic enhances the efficacy of public service delivery by fostering a collaborative environment where value is co-created, ensuring that services are more aligned with user needs and community welfare (Sienkiewicz-Malyjurek & Szymczak, 2024). The framework investigates new ways of articulating exchange and value creation.

This study aims to contribute to theory and business. The contribution through theory was made by developing a conceptual framework that would explain the two constructs of customer feedback and service innovation and the themes that influence customer feedback in driving service innovation.

The business contribution is accomplished through the utilisation of the conceptual framework that is informed by the research findings, and that indicates where the business is located on the conceptual framework and the steps required to have high customer feedback and high service innovation through an action plan and ultimately help other public sector organisations.

This chapter outlines the study's background of the influence of customer feedback to drive service innovation, which would lead to the need for the research and its relevance of conducting the research in the public sector, looking at the contribution of the public sector and the challenges it encounters that prevents it from providing the required services.

## **1.2 Background of Public Sector Service Innovation Importance**

The public sector contributes significantly to a nation's economy globally, accounting for 20–30% of the Gross Domestic Product (GDP) (Arundel et al., 2019). According to Statistics South Africa (Stats SA) (2021), the contribution of the electricity, gas, and water supply industry to total value increased from 2.7% to 3.1% between 2012 and 2021 in South Africa. This substantial economic footprint emphasises the public sector's vital role in national development and public welfare. Recognising the critical contribution of the public sector and the need to enhance the effectiveness of public services because of a growing interest in fostering innovation in the public sector. The public sector aims to improve resource utilisation efficiency through embracing innovative approaches. The drive for public sector innovation is crucial in addressing diverse societal challenges, ranging from healthcare and education to infrastructure and public safety. By leveraging new technologies, data analytics, and creative problem-solving strategies, the public sector seeks to deliver better services, optimise operational processes, and enhance overall life quality for the population (Arundel et al., 2019).

Customer feedback is collected through different platforms such as surveys, emails and social media, and it helps with understanding customer sentiments by categorising the analysis into trends (Wankhade et al., 2022). Constantly analysing customer feedback provides consistent data that helps in the decision-making process and aids in understanding customer satisfaction (Wankhade et al., 2022). Feedback allows for the recognition of customer needs, which is vital in creating innovative solutions that effectively address the challenges faced by the customer (Merlin-Brogniart et al., 2022). Regular feedback encourages communication and fosters a culture of transparency and trust within the organisation (Deepal & Jayamaha, 2023). Organisations that prioritise customer feedback can shape future market demand by understanding the evolving needs of their clients (Randhawa et al., 2021).

Service Innovation may enhance service delivery efficiency by adopting organisational innovations (Arundel et al., 2019). Innovative public sectors can differentiate themselves from competitors, increasing profitability (Lewis et al., 2018). Service innovation involves generating and implementing intentional incremental

innovations that are novel to the market (Makgopa, 2021). Service innovation aims to create value by delivering improved solutions and experiences to meet evolving needs and preferences (Makgopa, 2021). Service innovation is imperative for public organisations and arises from external and internal pressures. External influences, such as diminishing resources and growing citizen demands for a more responsive and accountable government, compel innovation. Internally, deliberate choices to reduce performance gaps to achieve higher service levels also drive the need for innovation. Despite numerous studies on public sector innovation and a recent surge in interest in this area, considerable debate remains about the most effective methods to encourage and maintain innovation in the public sector (Miao et al., 2018).

The public sector faces diverse challenges like ageing populations, budget constraints (Mariani et al., 2023) and increasing debt in many countries. Additionally, there is a growing demand for improved services, cost-efficient solutions, and alternative citizen interactions. Scholars agree that innovation is crucial for addressing these challenges effectively (Clausen et al., 2019). A vicious cycle exists where a deficient public service supply causes ineffective service demand. On the other hand, Wadding (2019) states that public sector innovation faces challenges like staff resistance, risk-averse attitude, and culture that hinder the implementation of solutions that hinder innovation (Arundel et al., 2019). Accurate data collection on innovation spending and outcomes is often lacking, as many public organisations lack systematic reporting methods, making it challenging to assess innovation comprehensively (Arundel et al., 2019). There is also a barrier to social media adoption innovation caused by the organisational culture and the misalignment with the public sector strategy (Bhimani et al., 2019). Public sector entities often face pressure from political leaders, influencing priorities and leading to instability (Mariani et al., 2023).

In today's competitive business environment, service firms must constantly innovate and adapt to stay ahead (Dereli, 2015). The lack of innovation may restrict public institutions' capacity to respond to evolving societal needs, reducing public trust and satisfaction (Gault, 2018). Firms must differentiate by offering unique value propositions (Dereli, 2015). Offering a unique value proposition entails evaluating current services, pinpointing gaps, and implementing new services that offer additional value to customers (Eckert & Husig, 2022). Therefore, service firms must

prioritise continuous improvement and agility in their strategic planning to thrive in the modern business environment, which also applies to the public sector (Snyder et al., 2016). Public sector organisations have been under increased pressure to innovate and enhance their performance while effectively serving the public (Felicio et al., 2021).

A novel analysis of the barriers to firms' innovation efforts, examining the unconditional and conditional complementary and substitution effects between financial, internal knowledge, and external knowledge barriers, showed that internal knowledge barriers are defined as the lack of skilled human resources (Jaureguy et al., 2023). In contrast, external knowledge barriers refer to the need for more opportunities to collaborate with external agents. Financial barriers are present when there is limited access to financial support (Jaureguy et al., 2023).

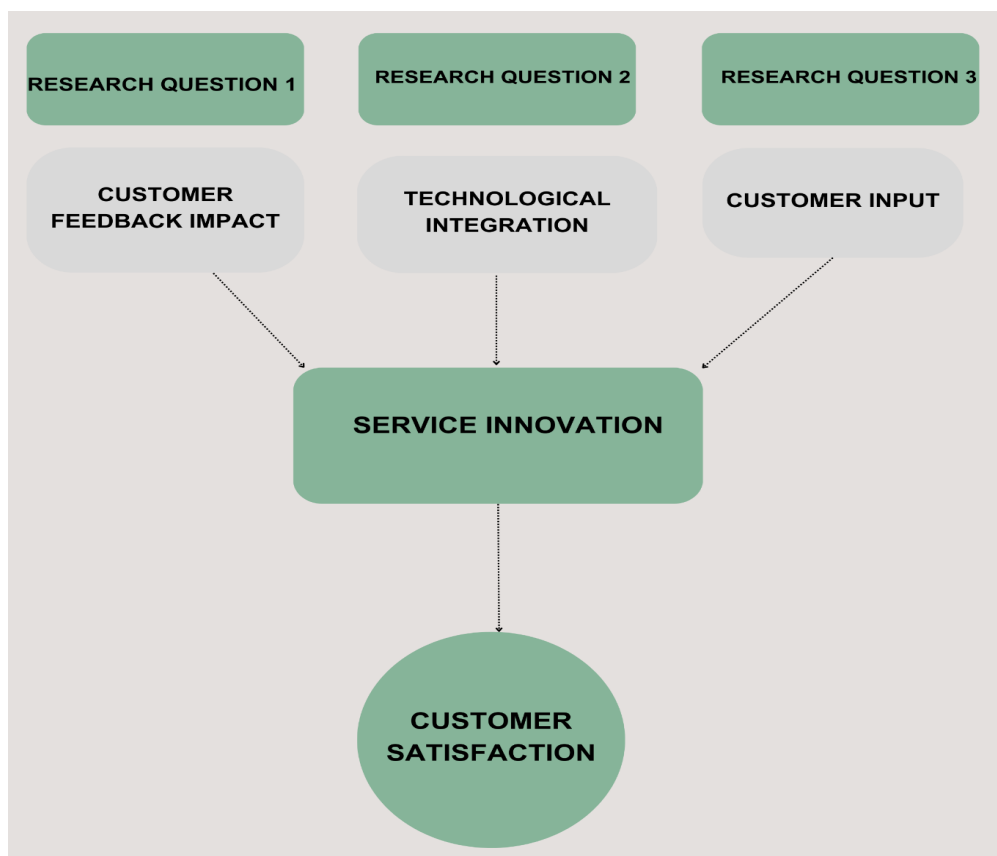
### **1.3 Research Problem**

The public sector is increasingly pressured to improve its service delivery and organisational performance, especially in light of rising customer expectations (Felicio et al., 2021). There is a growing recognition of the need for innovation within public services and administration to enhance efficiency, responsiveness, and overall service delivery (Demircioglu & Audretsch, 2017). However, a notable gap exists in effective mechanisms and strategies to address these challenges, resulting in stagnant service quality, unmet public expectations, and inefficient resource allocation (Clausen et al., 2019). Public organisations often need help with unclear goals, making it challenging to guide innovative activities. Different objectives between elected officials and public managers can create conflicts, hindering the effective implementation of innovation strategies (Arundel et al., 2019). Additionally, incentives in the public sector often need to encourage innovative behaviours (Demircioglu & Audretsch, 2017; Arundel et al., 2019), leading to a lack of motivation among employees to initiate new initiatives. Workers who do not see personal or professional benefits from innovating are less likely to share new ideas. Rigid structures and bureaucratic processes can resist change and limit flexibility, while these procedures can also slow down decision-making (Demircioglu & Audretsch, 2017; Arundel et al., 2019). Ultimately, slower processes can make it harder to respond quickly and effectively to innovation needs, and limited financial

and human resources can further reduce the ability to innovate. Public Sector Innovation deficiency ultimately undermines public trust and satisfaction. Customer feedback data has emerged as a potential solution, offering insights that could hold the public sector accountable and drive service innovation to enhance customer satisfaction (Caemmerer, 2006). Below is a conceptual framework for how the study would be conducted.

## 1.4 Purpose of the Research

This research seeks to assess and evaluate the potential role of customer feedback in driving service innovation within the public sector, focusing on the main research question and sub-questions. It aims to deepen the understanding of customer feedback, its role, and the value it can add to the public sector. See Figure 1.1 for the conceptual framework of the study.



**Figure 1.1: Conceptual Framework for the Study**

Source: Author's own.

The objectives guiding this research include understanding the following:

- The role of customer feedback impact in driving service innovation
- How technological advancement can improve customer service
- How customer input drives service innovative solutions in the public sector.

Through an exploratory investigation and analysis of the public sector, the research aims to offer a nuanced understanding of how customer feedback can be effectively leveraged to drive meaningful and sustainable innovation strategies. Ultimately, the study proposes practical recommendations rooted in public service-dominant logic theory, enabling businesses to use customer feedback as a strategic asset to navigate complexities, streamline processes, and align with evolving customer expectations in a dynamic market environment. This approach facilitates the identification of streamlined processes, enhances operational efficiency, and supports informed decision-making within the public sector, ultimately improving customer satisfaction (Virtanen & Jalonen, 2023).

## **1.5 Outline of the Report**

### **Chapter 1:**

This chapter provides an overview of public sector service innovation, establishing the context for the study. It also introduces the research problem, which centers on the role of customer feedback in driving service innovation. The chapter closes by presenting an outline of the purpose of the research.

### **Chapter 2:**

This chapter presents a comprehensive literature review on the impact of customer feedback in fostering service innovation. It also explains the theoretical framework that underpins the study. The chapter ends with a summary that encapsulates its main points.

### **Chapter 3:**

This chapter highlights the research questions designed to address the research topic. It includes three primary questions focusing on the impact of customer feedback, technology integration, and customer input's role in promoting service innovation.

**Chapter 4:**

This chapter outlines the methodological approaches most appropriate for addressing the research questions. It describes the processes for data collection and analysis, concluding with ethical considerations and a summary of the chapter.

**Chapter 5:**

This chapter discusses the research findings, presenting themes supported by relevant quotations for each research question. The chapter concludes with a summary reviewing the key findings of each research question.

**Chapter 6:**

This chapter analyses the findings, comparing them to the existing literature. It evaluates whether the themes identified support, contradict, or align with the reviewed literature for each research question. The chapter concludes with a summary of the analysis for each research question.

**Chapter 7:**

This final chapter presents the conclusions and recommendations of the study. It discusses the implications for business, highlights the contributions to both academic and industry knowledge, and concludes the chapter with an overall summary.

# **CHAPTER 2: LITERATURE REVIEW**

## **2.1 Introduction**

This section provides a comprehensive overview of customer feedback and service innovation, focusing on their role in shaping organisational strategies and customer experiences. It examines various feedback channels, such as surveys, reviews, and direct interactions, and their implications for shaping strategies. The section also reviews the latest research and conceptual frameworks/theories surrounding creating, adopting, and implementing innovative service offerings, identifying emerging trends, and identifying success factors. This suggests that the study should focus broadly on service processes. The section integrates the service-dominant logic framework, recognising its importance in fostering a service-oriented approach to problem-solving and innovation. The section aims to illuminate how organisations can effectively leverage customer feedback to fuel service innovation initiatives. This comprehensive understanding of these constructs lays a solid foundation for future empirical investigation.

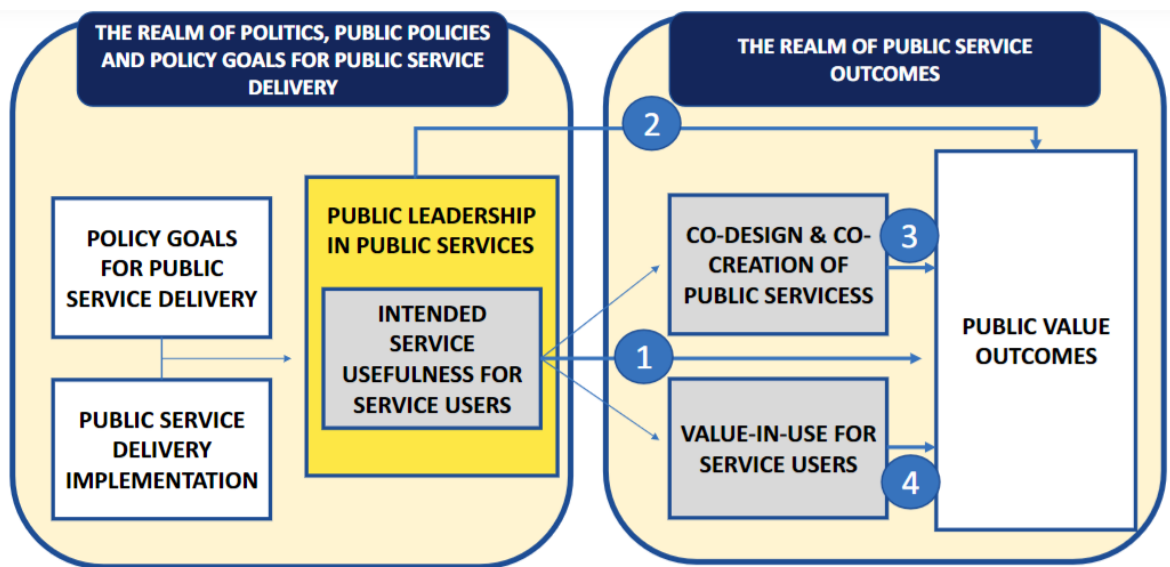
## **2.2 Theoretical Framework**

### **2.2.1 Public/Service-Dominant Logic**

Service-dominant (S-D) logic was introduced by Vargo and Lusch (2004) and emphasises value co-creation through resource integration and service exchange. Over the years, S-D logic has evolved, incorporating institutions and recognising the interplay of emergence and institutionalisation. It has transcended marketing, influencing various disciplines and theoretical frameworks, offering a holistic perspective on markets and marketing that facilitates exploration across different levels of aggregation. S-D logic aims to provide a comprehensive theory of markets, elucidating how markets operate across all levels of abstraction. In its developmental trajectory, S-D logic shifts from goods-dominant logic to service-for-service exchange, highlighting the importance of resource integration and value co-creation. Within the S-D framework, actors are functionally similar and engage in value co-

creation through service exchange, where each actor uniquely determines the value and multiple actors co-create it. Institutions are pivotal in enabling and constraining value co-creation through resource integration and service exchange. The concept of service ecosystems within S-D logic enables the analysis of value co-creation at different levels of aggregation and abstraction (Vargo & Lusch, 2014).

Vargo and Lusch (2017) reported that over the past decade, S-D logic has undergone significant theoretical advancements and foundational modifications; refer to Figure 2.1.



**Figure 2.1: Public Service Logic Framework**

Source: (Virtanen & Jalonen. 2023, p. 12).

It places service at the core of exchange, emphasising the co-creation of value by multiple actors (Miles, 2023). Initially, the framework centred on service-for-service exchange and value co-creation. However, the evolution of S-D logic has seen the incorporation of resource integration and the experiential aspect of value (Jaakkola et al., 2024). This progression involved identifying core foundational premises (FPs) and axioms. Recent developments in S-D logic include a shift towards a generic-actor (A2A) orientation and the conceptualisation of service ecosystems as the unit of analysis (Vargo & Lusch, 2017). The emerging narrative of S-D logic continues to underscore the importance of value co-creation through resource integration and service exchange. It emphasises the pivotal role of service ecosystems and

institutional arrangements in orchestrating value co-creation processes. Understanding the dynamic structures of markets necessitates bridging concepts related to service ecosystems and institutions within the S-D logic framework.

The transition from PSDL to public service logic (PSL) in public service organisations argues for a shift towards co-production and value co-creation in public management theory (Osborne, 2018). It contrasts PSDL, which emphasises the service-dominant nature of public services and the user's role as co-producer and co-creator of value, with PSL, which evolved from PSDL due to the distinctive context and nature of public services. It highlights the distinctiveness of public services, noting differences from private service firms in terms of customer retention, voluntary agency, and multiple stakeholders. Public service users have dual roles as service users and citizens, which impacts the value-creation process (Virtanen & Jalonen, 2023). Additionally, it addresses the limitations of service-dominant logic, shifting the focus from co-production to value co-creation in service encounters (Osborne, 2018). It emphasises that service organisations cannot deliver value but can offer value propositions for users to create value.

### **2.3 Service Innovation in the Public Sector**

Makgopa's (2021) definition of service innovation involves generating and implementing intentional incremental innovations that are novel to the market. This includes introducing new processes, products, or services based on existing offerings, along with new procedures—all designed to benefit customers, the organisation, and other stakeholders. Service innovation aims to create value by delivering improved solutions and experiences to meet evolving needs and preferences. Arundel et al. (2019) further elaborated their definition from the Oslo Manual, which offers a comprehensive definition of innovation applicable to all sectors, including the public sector. According to this definition, an innovation is a new or significantly improved product or process (or a combination of both) that substantially differs from the organisation's previous offerings. This broad definition encompasses many innovations, from minor enhancements to disruptive transformations.

Snyder et al. (2016) argue that service innovations can be categorised based on several themes. The degree of change refers to whether the innovations are incremental or radical, indicating the magnitude of transformation they bring about. The type of change categorises innovations by their nature, such as technological, procedural, or experiential changes. Newness distinguishes innovations based on their novelty to the market or the firm, differentiating innovations entirely from new iterations of existing services. Lastly, the means of provision involve different methods of service delivery, such as digital versus physical delivery or self-service versus full-service options. Cinar et al. (2024) delineate various types of innovations, particularly in public service innovation (PSI), and reference specific typologies developed over time along with examples from multiple studies. These include technological innovation, administrative innovation, ancillary innovation, service innovation, mission innovation, policy innovation, and management innovation. It also mentions innovation types identified in other studies, such as the MEPIN study and the Innobarometer Survey, which encompass product, process, organisational, and communication innovations (Cinar et al., 2024), focusing on new service innovation. These distinctions and examples demonstrate the diverse range of innovation types within the public sector, showcasing the evolution of services, processes, policies, and management practices.

Gustafsson et al. (2020) state that research on the impacts of service innovation on crucial outcomes for customers, firms, and society remains scarce. Key determinants such as customer experience, business models, and efficiency play pivotal roles in the success of service innovations. Therefore, there is a pressing need for a shift in research focus toward conducting more extensive studies that offer an all-encompassing understanding of the effects of service innovations. Bradonjic et al. (2019) suggest that underestimating user innovation can create a competitive disadvantage for companies and hinder valuable innovations from reaching the market.

The Oslo Manual recommends collecting data on various types of innovations, primarily focusing on products (goods or services) and processes, to ensure a comprehensive understanding of different forms of innovation within an organisation (Arundel et al., 2019). Importantly, it defines innovation without requiring it to be normatively better than its predecessor, emphasising the significance of changes brought by innovation. This counters the belief among some public sector managers

that innovations must always deliver better outcomes. However, cognitive testing reveals that while public sector managers understand the concept of novelty, their interpretations often conflict with the Oslo Manual's definition. This discrepancy arises from the extended timeframes for implementing public sector innovations and the common belief that innovations should inherently improve outcomes (Arundel et al., 2019).

Drivers of public sector innovation encompass several critical factors that can either propel or hinder innovation efforts within public organisations. Key drivers include the availability of a skilled workforce capable of innovating and implementing new ideas and adequate financial resources to support all stages of innovation, from research and development to implementation. Regulatory requirements often necessitate new approaches, driving innovation to comply with government standards and policies. Public demand for improved services motivates organisations to innovate to meet these expectations, while the need to solve complex social issues drives the development of novel solutions. Political actions, such as mandates, new laws, regulations, and policy priorities, create new requirements or opportunities for innovation. Urgent responses to problems or crises spur innovation as organisations seek rapid solutions, and changes in organisational structure can facilitate innovation by introducing new ways of working and enabling more flexible approaches to problem-solving (Arundel et al., 2019). Cinar et al. (2024) identify the need for public sector innovations to align with evolving political mandates and public expectations. Additionally, highlights the significance of understanding the political context in shaping public service innovations, emphasising the interconnectedness of governance, public policy, and service delivery. Recognising these obstacles is the first step in developing strategies to overcome them (Mu & Wang, 2022).

The public sector emphasises understanding the innovation process, ranging from incremental improvements to transformative innovations. This differs from the private sector, which focuses on outcomes (Arundel et al., 2019). Both the public and private sectors can benefit from each other's feedback practices. Adapting private sector systems into the public sector requires careful consideration to ensure alignment with public sector values and objectives. Continuous customer feedback is crucial for businesses to adapt to changing needs and develop innovative solutions that resonate with their target audience (Tueanrat et al., 2021).

## 2.4 Customer Feedback in Service Innovation

Customer feedback encompasses the diverse range of opinions, comments, and expressions of interest provided by users regarding a product, service, or complaints handling process. It represents the collective voice of customers, reflecting their experiences, perceptions, and suggestions for improvement (South African Bureau of Standards, 2015).

Customer feedback is crucial for service delivery and management, impacting both customer and employee dimensions. In today's dynamic business environment, the significance of customer feedback in service innovation is gaining widespread acknowledgement as a crucial factor (Parrili et al., 2020). The dynamic interplay between customers and businesses steers the course of service innovation and carries profound implications for the broader spectrum of business innovation initiatives. In an age where comprehending customer behaviour and preferences is paramount, underestimating the pivotal role of customer feedback poses a potential threat to the competitiveness of businesses (Bradonjic et al., 2019). Customer feedback is vital for enhancing service delivery to meet changing customer needs, as timely and accurate feedback allows organisations to respond rapidly to evolving demands and preferences, ensuring services remain relevant and competitive. Acting on customer feedback makes customers feel valued, improving satisfaction as their needs and problems are addressed, fostering a more engaging and responsive relationship between the service provider and its customers. Integrating customer feedback with reward and recognition systems boosts employee motivation, as knowing their efforts are acknowledged and a clear pathway for service improvement based on customer insights encourages better service delivery. Continuous collection and analysis of customer feedback help organisations monitor progress over time, enabling businesses to identify cause-and-effect relationships, clarify goals, and gain insights into service improvement strategies, contributing to overall organisational learning and development. Additionally, incorporating customer feedback allows organisations to innovate and improve services more effectively to meet customer requirements (Caemmerer, 2006).

User feedback is crucial for service innovation, especially in co-design, as it provides context-specific insights, diverse perspectives, and innovative ideas while fostering ownership, acceptance, and broader social innovations through equal participation

and collaborative efforts (Trischler et al., 2019). Data analytics enhances decision-making by combining customer feedback with operational data, enabling companies to make informed decisions about service enhancements and innovation strategies, resulting in more responsive and customer-orientated services (Akter et al., 2023). Customer feedback provides valuable insights that help organisations identify areas for improvement and validate ideas before implementation (Vickers et al., 2017). This information helps the organisation make informed decisions when investing in innovation. Social media allows businesses to create communities where users can share their experiences, suggestions, and even complaints related to a service. This collective feedback can guide service enhancements and innovations (Bhimani et al., 2019). Leaders can guarantee that customer feedback is consistently integrated into strategic planning. This may involve creating processes for the timely collection, analysis, and implementation of feedback (Deepal & Jayamaha, 2023).

Leadership plays a crucial role in driving innovation, with transformational and entrepreneurial leaders creating supportive environments and empowering teams. Effective leaders facilitate networking and can boost innovation capacity through a combination of leadership styles (Lewis et al., 2018). Leadership in public sector organisations fosters innovation through experimentation, role modelling, resource provision, psychological empowerment, and management practices. It promotes risk-taking, tolerance for failure, and psychological empowerment, enhancing intrinsic motivation and shared vision (Miao et al., 2018). Organisational culture significantly influences innovation by creating a conducive environment for creativity and exploration. Positive traits, such as proactivity and risk-taking, encourage innovation. Leaders and democratic decision-making can shape this culture, which supports continuous learning and adaptability (Woszczyzna, 2015). Strong bureaucratic structures and high levels of red tape contribute to organisational cultures that are often resistant to change and innovation (Arundel et al., 2015).

The literature highlights that collaboration fosters an environment conducive to innovation by integrating the perspectives and skills of various stakeholders, thereby enhancing the relevance, efficiency, and quality of public services (Vickers et al., 2017). Arundel et al. (2015) suggest that collaboration enhances service innovation by leveraging diverse ideas, accessing external knowledge, providing additional resources, promoting shared learning, supporting implementation efforts, and fostering a culture that embraces innovation. Customers and employees can

collaborate on problem-solving, leading to innovative solutions and allowing firms to tap into creative ideas and perspectives for new service concepts (Anning-Dorson, 2018).

Strategic alignment and planning are vital for fostering service innovation in the public sector. A supportive governance model promotes systematic innovation, while strategic management aligns efforts with policy goals and community needs (Arundel et al., 2019). Incorporating customer suggestions and ideas into service strategies can lead to innovative solutions that resonate better with the target audience (Tueanrat et al., 2021).

Williams et al. (2017) outline a method for collecting customer feedback for service performance improvement and a customer feedback model as per Figure 2.2. It includes three stages: physical collection through the telephone, activating Hot Alerts for negative feedback, and transferring data for analysis. Finally the question of how customer feedback drive service innovation should be addressed.



**Figure 2.4: Customer Feedback Model for Service Performance Improvement**

Source: (Williams et al., 2017, p. 5).

## **2.5 Technological Advancement in the Integration of Customer Feedback**

This comprehensive approach combines direct communication methods with internal processes to ensure immediate and long-term benefits from the feedback gathered. Caemmerer (2006) suggests using a Service Quality Information System, using quantitative and qualitative measurement tools, and continuously collecting feedback to monitor progress and adapt to changes. Feedback forms tailored to specific events or encounters provide detailed insights. Direct conversations with customers provide immediate feedback, while complaint procedures help identify and retain dissatisfied customers. Employee feedback offers valuable insights into customer perceptions and service quality.

AI and data analytics are revolutionising service innovation by interpreting customer feedback, identifying trends, and improving decision-making (Akter et al., 2023). These technologies also offer benefits like agile innovation, customer engagement, and complex feedback integration. Technological advancements enable organisations to become more agile, enabling swift adaptation to customer feedback, leading to faster innovation cycles and more effective user experience implementation (Akter et al., 2023). Artificial Intelligence (AI) applications can efficiently analyse vast customer feedback data, enabling companies to identify trends, preferences, and pain points, thereby guiding service development and improvement initiatives (Akter et al., 2023). Systems that enable real-time feedback, such as live chat or instant surveys, offer prompt insights that facilitate faster decision-making and allow for swift adjustments (Arundel et al., 2019).

Feedback systems with high response rates are often facilitated by user-friendly and easily accessible tools that encourage customer participation (Arundel et al., 2019). Akter et al. (2023) highlight the importance of organisational agility in responding to market changes, emphasising the role of AI in customisation, enabling organisations to better understand customer needs, identify opportunities, and implement tailored solutions. Adaptability helps in optimising resource utilisation and improves service delivery processes, leading to better public governance performance (Sienkiewicz-Malyjurek & Szymczak, 2024).

Feedback systems that integrate seamlessly with customer relationship management (CRM), marketing, and project management tools can streamline processes and ensure that feedback is considered in relevant business strategies (Arundel et al., 2019). Digital tools have transformed how organisations interact, introducing low barriers to entry and user-friendly interfaces that encourage high levels of participation and creativity among users (Bhimani et al., 2019). Businesses can use various tools to collect customer feedback, including surveys, polls, social media monitoring, customer feedback software, live chats, review platforms, email feedback requests, net promoter score (NPS) tools, and user testing tools (Arundel et al., 2019). These tools help businesses collect, analyse, and act on customer feedback to improve their services and products. Examples include SurveyMonkey, Google Forms, Typeform, Hootsuite, Medallia, Qualtrics, Intercom, Drift, Yelp, Trustpilot, Mailchimp, Delighted, Promoter.io, and UserTesting (Arundel et al., 2019). By monitoring discussions and trends on social media, companies can identify emerging needs or preferences among their target audience. This enables them to innovate services that align with changing market demands (Bhimani et al., 2019). Companies can utilise innovative touchpoints like mobile devices and digital platforms to gather real-time customer feedback, enabling them to understand customer preferences, needs, and pain points, thereby guiding service innovations (Tueanrat et al., 2021).

The co-creation of value allows firms to create customised services based on customer feedback, fostering innovation and rapid adaptation to meet unique customer needs (Anning-Dorson, 2018). The advent of technologies like big data and the Internet of Things (IoT) allows organisations to conduct more intensive co-creation processes with customers, enabling real-time feedback capture during service delivery and incorporating customer insights into innovation efforts (Aker et al., 2023). Value co-creation in service innovation can be achieved using various archetypes, including the Output-Based Archetype, Process-Based Archetype, Experiential Archetype, and Systemic Archetype (Helkkula et al., 2018). Collectively, the archetypes create meaningful experiences for all stakeholders and integrate resources effectively within the service ecosystem. Companies can foster co-creation by involving clients in the production of new products through platforms that facilitate brainstorming sessions or ideation competitions (Bhimani et al., 2019). Customers are now seen as co-creators of their experiences, with emotional engagement significantly shaping service quality (Tueanrat et al., 2021).A question

needs to be asked on how technological advancements can drive in integration of customer feedback?

### **2.5.1 Customer Input Utilisation**

Degbey et al. (2023) underscore the critical role of customers in knowledge-intensive service sectors, where they serve as vital sources of knowledge, influencing product design and supporting capability development. Moreover, customer behaviour shapes the supplier's involvement in innovation processes, whether through demands or support, thus establishing long-term relationships that drive responsible innovation development. Rayna and West (2023) further elaborate on customer participation in design, envisioning their involvement in mass customisation, co-creation, and presumption. Despite the potential benefits, challenges such as unreliability, high costs, and limited access hinder customer engagement, highlighting the complexities of integrating customers into innovation processes. Mu and Wang (2022) emphasise the significance of customer input in innovative service solutions, highlighting critical strategies like co-production, training, persuasive strategies, crowdsourcing, incentives, reputation systems, and open government data, which encourage citizen participation and innovation. Involving customers in co-design, gathering detailed feedback, and engaging them in testing ensures services are user-centred and continuously improved (Joeger, 2013).

Feedback loops enable firms to improve service quality by incorporating direct customer experiences and suggestions into their changes and innovations (Anning-Dorson, 2018). Public organisations can improve service by utilising crowdsourcing ideas, participatory design, hackathons, social innovation initiatives, and civic crowdfunding (Figenschou et al., 2024). These methods encourage public input, foster innovative solutions, and promote local engagement, leading to higher success rates. Customers are key data sources, enabling companies to identify service gaps and opportunities, thereby enhancing service delivery and fostering innovation (Anning-Dorson, 2018). By embedding feedback into regular operations, organisations can address concerns more systematically and improve service efficiency (Waddington et al., 2019).

Idea generation is a crucial process in service innovation, involving user understanding, collaborative exploration, and iterative problem-solving, leading to successful innovation outcomes through co-design and knowledge sharing (Trischler

et al., 2019). Idea generation involves local governments involving citizens to share ideas and competencies, increasing motivation and engagement in social innovation initiatives (Figenschou et al., 2024). This process fosters a collaborative environment, bridging competence, power, and identity boundaries. Organisations can use social media platforms to gather customer feedback for service improvement through polls, surveys, and open discussions (Bhimani et al., 2019).

The iterative development process is crucial for service innovation, fostering dynamic idea generation and refinement through problem-solving framing, collaborative exploration, feedback loops, prototyping, contextual adaptation, and stakeholder empowerment (Trischler et al., 2019). This approach enhances implementation success, empowers stakeholders, and fosters long-term success. Social media provides a robust channel for establishing feedback loops, allowing organisations to continuously collect insights and adapt their services accordingly (Bhimani et al., 2019). This iterative process supports ongoing service innovation. Each iteration offers teams the chance to assess progress, learn from mistakes, and make adjustments, enabling continual refinement to better align the product with market needs (Sonta-Drączkowska et al., 2024).

Customers are key data sources, enabling companies to identify service gaps and opportunities, thereby enhancing service delivery and fostering innovation (Anning-Dorson, 2018). AI-powered service robots enhance customer engagement and satisfaction, allowing businesses to gather dynamic feedback for better service design and development (Akter et al., 2023). Direct participation in service production and delivery allows firms to understand customer needs and expectations, leading to the development of innovative service offerings (Anning-Dorson, 2018). Higher customer involvement allows firms to enhance flexibility and responsiveness in their service processes, enabling real-time adjustments based on customer inputs for innovative service experiences (Anning-Dorson, 2018). Social media facilitates direct interaction between service providers and customers, allowing for real-time feedback. This can help organisations quickly adapt and innovate services based on customer experiences and suggestions (Helkkula et al., 2018). Involving customers in pilot programs or beta tests for new service concepts allows businesses to gather valuable feedback and identify potential improvements before a full-scale launch (Tueanrat et al., 2021). This engagement enhances the service and fosters a sense of ownership among customers. Digital platforms enhance customer engagement by

providing easy access to opinions and preferences, promoting brand interaction and encouraging active contribution of ideas for service improvements (Tueanrat et al., 2021).

The growing interest in user-driven innovation in the public sector emphasises the need for project management approaches that effectively incorporate user engagement to address social challenges (Sonta-Drażczkowska et al., 2024). Research indicates a gap in understanding effective user engagement in co-innovation projects, highlighting the need for better alignment between user involvement and strategic goals, which remains underexplored in the literature (Sonta-Drażczkowska et al., 2024).

Additionally, the concept of economies of scale is emphasised, particularly in large-scale product customisation and co-creation initiatives. Bradonjic et al. (2019) emphasise the importance of considering end customers in platform ecosystems, indirectly suggesting an understanding of customer behaviour and preferences in technological evolution. Lastly, Parrili et al. (2020) delve into the pivotal role of customer input in service innovation, emphasising user-producer interactions as key drivers of innovation. They highlight how customer signals influence service providers and contribute significantly to innovation across organisational and marketing domains. While primarily focused on service innovation, the study acknowledges the broader impact of user-producer interactions on various forms of innovation. These works underscore customer involvement's multifaceted influence in shaping innovation processes across different sectors and contexts.

Bradonjic et al. (2019) highlight the dual role of customers in new product development (NPD), distinguishing between their roles as co-developers and information sources. Involving customers in NPD tasks can foster joint problem-solving and active knowledge sharing, influencing relational dynamics within the innovation process. Additionally, their study emphasises the critical importance of customer involvement as an information source, which significantly impacts NPD outcomes. Zhang et al. (2023) delve into the motivations behind customers' participation in grand challenge issues, categorising them based on socio-environmental considerations. They underscore the pivotal role of customers in driving ethical advancements in innovation for suppliers, citing pathways such as human capital, socio-behavioural influences, and relationship dynamics.

Contrastingly, Snyder et al. (2016) present a perspective that views customer needs as a foundational aspect of service innovation, contrasting with the evolving paradigm of service-dominant logic that emphasises the centrality of value. They argue that solely adopting an internal perspective on service innovation risks overlooking the customer's perception of novelty and value. According to their viewpoint, newness should be evaluated from the customer's perspective, as they are the ultimate arbiters of the value derived from the offering. Furthermore, they stress that value is realised through usage and cannot be solely embedded in the production process of a new good or service. Finally, they argue that for new services to be recognised as innovations, customer roles must evolve beyond traditional categorisations such as buyer, payer, or user. In summary the research question on how can customer input be used in innovative service solutions and improvements must be addressed?

## **2.6 Chapter Conclusion**

This section examines the role of customer feedback in fostering service innovation within the public sector. Customer feedback is recognised as a crucial driver of innovation, gathered in various forms and analysed using digital platforms. Engaging customers is essential to delivering meaningful service and creating value that aligns with the public service's value-driven framework, ensuring that services meet the perceived needs and expectations of the public.

## CHAPTER 3: RESEARCH QUESTIONS

### 3.1 Introduction

The purpose of the research was to understand the topic of the influence of customer feedback in driving service innovation, and three questions were going to assist in unpacking the research topic. The questions were made of one main question: *How can customer feedback drive service innovation in the public sector?* Sub-questions: *How can technological advancements play a role in facilitating the integration of customer feedback for service innovation? How can customer input be used in innovative service solutions and improvements?* The questions led to the creation of interview questions aligned with the research questions.

### 3.2 Research Question One (RQ1)

#### **How can customer feedback drive service innovation in the Public Sector?**

This question aimed to understand how receiving and utilising customer feedback can assist in driving service innovation. To understand and get insights on the research question, it was important to understand why customer feedback is important, why it can be used as a driver of service innovation and how you handle different types of customer feedback. Furthermore, these questions need to determine what themes are essential for driving service innovation in the public sector, and literature suggests that customer feedback drives service innovation in the public sector through co-design involvement, understanding user needs, value co-creation, collaboration, implementation requirements, and addressing vulnerable groups (Trischler et al., 2019).

### **3.3 Research Question Two (RQ2)**

#### **How can technological advancements play a role in facilitating the integration of customer feedback for service innovation?**

This question was to understand how technological advancement can assist in understanding customer needs and preferences. Technological advancements enable organisations to become more agile, enabling swift adaptation to customer feedback, leading to faster innovation cycles and more effective user experience-based change implementation (Akter et al., 2023). Furthermore, this question was meant to assist in understanding how technology integration can assist organisations in effective decision-making. Akter et al. (2023) suggest that advanced technologies enable the integration of human-centric and machine-centric activities, facilitating service innovation strategies and enabling the smoother implementation of changes amidst customer expectations.

### **3.4 Research Question Three (RQ3)**

#### **How can customer input be used in innovative service solutions and improvements?**

This questions wanted to explored the role of customer input as the end user of service delivery and how best the public sector can partner with customers to derive innovative strategies. Mu & Wang (2022) emphasises the significance of customer input in innovative service solutions, highlighting critical strategies like co-production, training, persuasive strategies, crowdsourcing, incentives, reputation systems, and open government data, which encourage citizen participation and innovation. Customer input enhances service innovation by providing insights into user needs and preferences. Involving customers in co-design, gathering detailed feedback, and engaging them in testing ensures services are user-centered and continuously improved (Joeger, 2013). Customer inputs derived from customer interactions can reveal insights and trends to develop informed improvement strategies (Jager,2024).

### **3.5 Chapter Conclusion**

This section was the background of the study with the aim of getting insights into understanding what drivers service innovation and how we can create value to the customer through technology and how customers as end users that derive value for the service delivery can partner to assist in driving service innovation in the public sector. The next chapter will assist with selecting the best suitable methodological approaches that will answer the three research questions.

## **CHAPTER 4: RESEARCH METHODOLOGY**

### **4.1 Introduction**

This section outlines the qualitative methodology approach of the research and includes the research design that answered the research question in chapter three. The research design outlines the approach to address the research questions and achieve the research objectives, including data collection methods through semi-structured interviews, sampling techniques, analysis procedures, and ethical considerations.

Challenges in quality assurance techniques related to data dependability and trustworthiness were identified while undertaking the methodological approach. Measures to address the challenges were identified and enforced for the study. The study was qualitative and exploratory, trying to understand the influence of customer feedback on driving service innovation in the public sector.

### **4.2 Methodological Choice & Research Design**

The primary objective of the mono-method qualitative research study was to understand the influence of customer feedback in driving service innovation by exploring the relationship between customer feedback and service innovation. According to Creswell (2009), qualitative research is designed to explore individual or group insights on social challenges, while quantitative research is designed to test theories by examining the relationships among variables, and mixed methods are the combination of the two approaches for an in-depth understanding of the problem. The reason for choosing a qualitative research design was based on the research questions, and the suitability of the study's goals and nature, with variations in complexity depending on the chosen methods and timeframe (Kumar, 2011). Qualitative research is intended to uncover novel insights (Saunders & Lewis, 2018), pose new inquiries, and evaluate customer feedback as a catalyst for service innovation from a fresh perspective. This approach emphasises the open-ended nature of the investigation, facilitating the exploration of diverse facets of the subject

matter and encouraging a holistic examination that transcends conventional boundaries (Saunders & Lewis, 2018).

#### **4.2.1 Philosophy**

The following philosophies guide the methodological approaches: positivism studies social realities using structured methods for accurate and unbiased data collection, while critical realism recognises natural phenomena influenced by social contexts, pragmatism focuses on problem-solving using qualitative and quantitative approaches, Interpretivism is a philosophy dedicated to understanding the subjective meanings people attach to social phenomena, emphasising the context and personal interpretation of individual experiences (Alharahsheh & Pius, 2020; Saunders & Lewis, 2018).

Interpretivism was chosen for this study because it recognises that humans create meanings and interpretations based on their experiences, beliefs, and social backgrounds (Alharahsheh & Pius, 2020). It assumes that knowledge is inseparable from the individuals who possess it, highlighting the subjective nature of understanding. The study used interpretivism philosophy because it allows for deep insights and a holistic understanding of the influence of customer feedback in driving innovation that cannot be captured through objective measurement alone. Interpretivism is linked to qualitative research methods, such as interviews, informal discussions, and researchers, to collect rich, descriptive insights into participants' lived experiences, promoting a deeper and more nuanced understanding of social phenomena (Alharahsheh & Pius, 2020).

Given the unique nature of business situations and the specific circumstances within the Public Sector, the research aims to comprehend the social phenomenon of service innovation by considering the perspectives of those directly involved in the public sector. This approach ensures a focused examination of the public sector processes and practices related to the utilisation of customer feedback as a catalyst for innovation.

Inductive reasoning in this study involved moving from specific observations to broader generalisations and theories. The process commenced with specific

measurements and observations, identifying patterns and recurring phenomena. Speculative propositions were then formulated to draw general conclusions or theories. In exploring the influence of customer feedback in driving service innovation, inductive reasoning focuses on understanding the meanings humans attribute to events (Saunders & Lewis, 2018).

The inductive approach becomes imperative in studying customer feedback influence in the public sector, demanding a thorough comprehension of the organisational context. The inductive approach involved researching across various departments within the public sector to generalise theories pertinent to customer feedback driving service innovation. The inductive approach aims to detail the work experience within the public sector, mainly focusing on units with distinct environmental characteristics related to customer feedback practices.

Its notable flexibility sets the inductive approach apart, allowing for adjustments in research emphasis as the study unfolds. This adaptability is crucial in accommodating the unique dynamics of the public sector and the evolving nature of customer feedback-driven service innovation. By embracing this flexibility, the inductive approach enhances its capacity to comprehensively understand the meanings individuals associate with organisational events. This, in turn, facilitates the development of more effective research strategies tailored to the specific nuances of customer feedback integration within the public sector.

#### **4.2.2 Time Horizon**

Two distinct time horizons exist: cross-sectional and longitudinal, each with advantages and disadvantages (Kumar, 2018). In the context of studying customer feedback and innovation, the selection of a cross-sectional research design holds strategic relevance. This approach enables data collection from diverse customer segments within a single timeframe, offering a comprehensive snapshot of the customer feedback and its potential impact on service innovation. The cross-sectional design facilitates various customer groups, considering demographics, preferences, and experiences and providing a holistic understanding of the customer base.

Employing short-term interviews as a qualitative data collection method allows for in-depth exploration within the confines of the chosen period. Overall, in the study of

customer feedback driving service innovation, the cross-sectional design proves advantageous for efficiently capturing a broad range of insights from different customer perspectives.

### **4.2.3 Strategy**

The study used a case study strategy to investigate the influence of customer feedback in driving service innovation. The reason for choosing this strategy was because case studies are suited for exploratory research questions (Yin, 2003). The research also focussed on a specific Provincial Water board and that allowed for an in-depth exploratory research on customer feedback and service innovation. This method captures the depth and intricacies of these phenomena in ways that other approaches may not achieve. In the context of this study, the case study research strategy allowed for a detailed understanding and motivators of certain decisions within the public sector (Saunders & Lewis, 2018). By engaging participants in the public sector, the strategy aims to gain insights into individual perspectives, contributing to a comprehensive understanding of this phenomenon.

## **4.3 Population**

The relevant group members set for the study under consideration are all public sector managers/supervisors with experience in customer feedback processes in South Africa (Saunders & Lewis, 2018). These employee groups are the focal point for answering the research questions and investigating the influence of customer feedback in driving service innovation. The research aims to gather comprehensive insights into the dynamics between customer feedback and innovation practices by encompassing the entire workforce within this specific organisational unit. The population was chosen because it can provide valuable insights that help organisations identify areas for improvement and validate ideas before implementation (Vickers et al., 2017). Given the available time and access, the study seeks to draw meaningful conclusions about the interplay between customer insights and innovation processes.

## **4.4 Sampling**

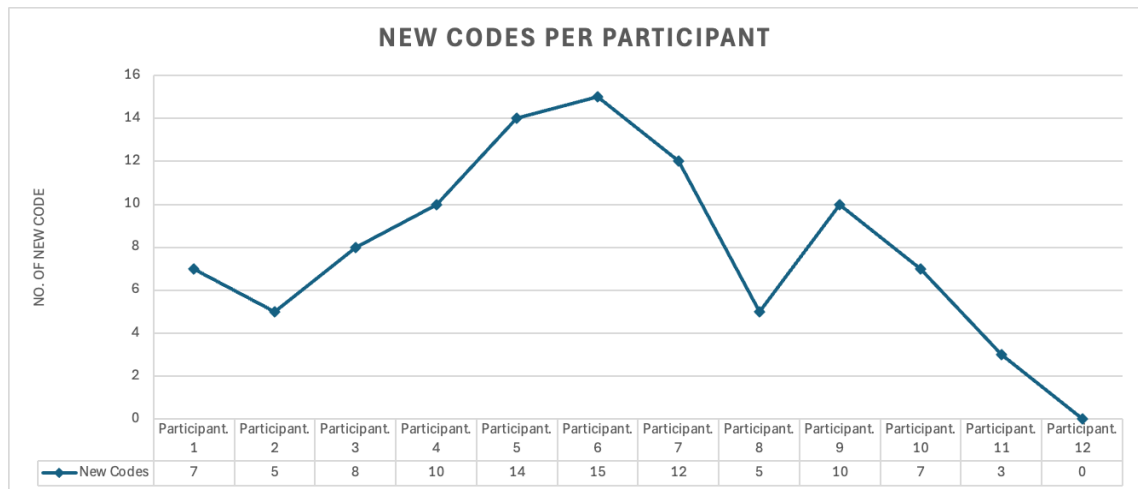
Homogenous purposive sampling is a non-probability sampling technique used in qualitative research to intentionally select participants based on specific criteria, such as similar characteristics or attributes relevant to the research question and objectives (Kumar, 2011). This method was particularly beneficial for gaining in-depth insights and understanding the influence of customer feedback in driving service innovation. Homogeneous purposive sampling was selected as it allows the researcher to tap into the expertise and richness of information held by specific individuals or groups within the provincial water board population, allowing for nuanced and detailed perspectives that may be crucial for addressing the research objectives. The sample was based on the public sector, years of experience and occupation level: Supervisory /Management because they can provide insights on the research topic.

### **4.4.1 Sample Size**

Patton (2002) states that the sample size in qualitative research is flexible and shaped by many factors. Twelve managers were selected from the Provincial Water Board and interviewed for the study to ensure a diverse range of perspectives while exploring individual experiences with customer feedback and innovation. Conducting individual interviews fosters meaningful interactions and facilitates a thorough understanding of how departments drive service innovation based on customer feedback. By adhering to these participant and group size recommendations, the measurement instrument aims to capture both individual viewpoints within the context of customer feedback and innovation. This approach is designed to yield diverse and comprehensive data, enabling a thorough exploration of the intricate relationship between customer insights and the innovation process.

Data saturation is the stage in data collection and analysis where the inclusion of new information results in minimal or no changes to the established codebook. This precise definition aims to clarify the term, which has become diffuse and vague due to its frequent use across various bodies of literature (Guest et al., 2006). Individual semi-structured interviews ceased upon data saturation at the 11th interview when

the interviewer no longer encountered new information about the phenomenon, as indicated in Figure 4.4.1.



**Figure 4.4.1: Data Saturation**

Source: Authors Own.

#### 4.4.2 Inclusion Criteria for Sampling

The inclusion criteria for this study encompass managers/supervisors of the Provincial Water Board who work in the operations (Process or Asset Management), Infrastructure Development, or Scientific Services divisions. These managers/supervisors needed more than seven years of experience and have been involved with or worked closely with the customer feedback process.

#### 4.5 Unit of Analysis

The unit of analysis was at an individual level. It was focused on the perception of managers/supervisors within the Provincial Water Board (Patton, 2002). In examining the relationship between customer feedback and innovation, managers/supervisors from the below organisational units serve as distinct units for observation and analysis. The focus was on understanding how managers/supervisors within this specific organisational unit (Operations, Asset Management and Scientific Services) perceive, engage with, and contribute to

service innovation processes in response to customer feedback. By isolating the managers/supervisors as the unit of analysis, the research aimed to capture the nuanced perspectives and behaviours of managers/supervisors, providing a granular view of the connections between customer feedback and innovation within the context of the Provincial Water Board.

## **4.6 Measurement Instrument**

The semi-structured format of the interview guide for customer feedback driving innovation research is crucial for several reasons. Firstly, the introduction establishes a foundation for trust and transparency, which is essential for obtaining honest participant responses. It also ensures that participants understand the study's purpose, methods, and potential benefits, enhancing their willingness to participate (Kumar, 2018). In the context of the research questions about the Provincial Water Board, the study delves into understanding how the incorporation of customer feedback can stimulate service innovation. The sub-questions guide this exploration by investigating the role of technological advancements in facilitating customer feedback integration and by examining strategies for utilising customer input in developing innovative solutions and improving services. Furthermore, the comprehensive exploration outlined in the second part of the interview guide follows a systematic approach, covering elements such as inspiration, planning, resource acquisition, and risk management. This ensures a thorough understanding of the factors influencing the innovation process, as [Appendix D](#) demonstrates.

Furthermore, including specific inquiries about creativity, innovation, and the role of networks and relationships allows for a nuanced exploration of the research question. This semi-structured approach enables researchers to uncover valuable insights into how customer feedback influences various business development and innovation stages. The time budget for conducting semi-structured interviews would be a maximum of 60 minutes.

In summary, the interview guide's format is important because it establishes a clear and transparent framework, facilitates a systematic exploration of key factors, and ensures a comprehensive understanding of the role of customer feedback in driving

innovation. This semi-structured approach enhances the validity and reliability of the research findings.

## **4.7 Data Collection**

Data collection methods can be categorised into primary and secondary sources (Kumar, 2018). Semi-structured interviews were conducted for this study. During these sessions, participants were encouraged to express their opinions, share experiences, and provide insights about the research question. The dynamic nature of semi-structured interview settings allows for the individual diverse perspectives and the emergence of nuanced information (Kumar, 2018).

This mono-method qualitative approach centred around individual semi-structured interview discussions, is well-suited for capturing in-depth qualitative data, uncovering shared meanings, and comprehensively understanding participants' perspectives. The richness of the qualitative data obtained through individual semi-structured interviews contributes to a more nuanced and holistic interpretation of the research topic. The researcher participates actively in the interview process by utilising note-taking and audio recording via MS Teams for 45-60 minutes. This combined method ensures comprehensive conversation documentation, effectively capturing verbal nuances and contextual details. Open-ended questions, supported by the interview guide, guided the discussions with participants. The collected data was transcribed verbatim after the interviews using the MS Teams transcript feature. This transcription step accurately represents participant responses in a textual format, preserving the original conversation's depth, richness, and accuracy.

In qualitative research, the goal is often to explore and understand complex phenomena; data triangulation and homogeneous convenient sampling ensure that the chosen participants have the potential to provide valuable insights that align with the study's goals. Additionally, purposive sampling ensures resource efficiency, as qualitative research often involves in-depth interviews, observations, or detailed analysis, resulting in a more efficient and comprehensive sample.

## 4.8 Data Analysis

A systematic and comprehensive approach was employed to collect data from each interview, ensuring accuracy and depth in the research process. Data was collected through in-depth individual semi-structured interviews with participants from The Provincial Water Board and using data triangulation. The following steps were followed; see Figure 4.1.

Thematic analysis was used for the data analysis. Thematic analysis is a method used to identify, analyse, and report patterns within data. It involves organising and describing data sets in detail, allowing researchers to comprehensively interpret various aspects of the research topic (Braun & Clarke, 2006; Saldana, 2016).

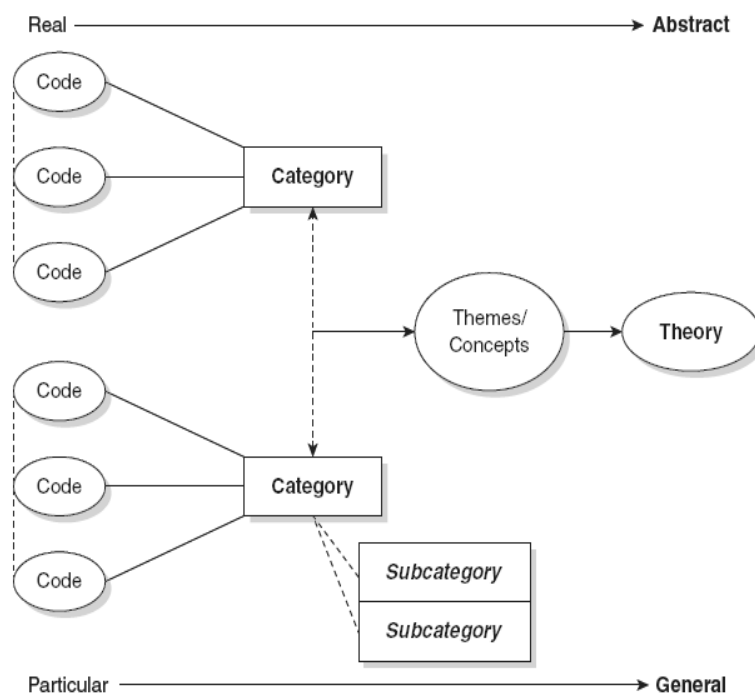


FIGURE 1.1 A streamlined codes-to-theory model for qualitative inquiry

### Figure 4.1: Code to Theory Model

Source: (Saldana, 2016, p. 12).

Atlas Ti was the software that was used to assist with the process. The process starts by reading through the text and picking out quotes that capture the main ideas. Each quote gets a specific code, like a short label representing its main meaning. Coding is a technique used in qualitative research to identify repetitive patterns and consistencies in data. It categorises and analyses qualitative information by assigning unique codes to data units. These codes act as analytic lenses shaped by the researcher's perspective and interpretation, influenced by personal involvement, interview responses, field notes, and participant demographics. Coding is an exploratory problem-solving technique involving multiple cycles of recoding to refine and highlight significant features. Categorisation is a cyclical process involving multiple cycles of recoding to refine codes and categories in qualitative analysis. Data coded into categories are grouped under major themes for analysis and further refined through propositional statements and comparisons to establish relationships (Saldana, 2016).

These coded quotes are then organised into categories, creating a basic structure that shows the main themes in the data. The next part involves going deeper – within each category, quotes are looked at more closely to find subtle differences or sub-themes. The analysis approach helps to understand the details within each central theme. As the analysis continues, researchers put together a detailed presentation of their findings. Visual aids like tables, charts, or graphs were used to make the presentation clear. Finally, there is an interpretive phase where researchers explore the meanings and implications behind the main themes. They connect their findings to the original research questions or objectives and discuss why it matters. The process is thorough and transparent, ensuring the manual analysis gives a robust and detailed understanding of the complexities in the written information.

## **4.9 Limitations**

Qualitative research has certain limitations, such as the small sample size, which limits the ability to generalise the findings. This study focused on a single Provincial Water Board, highlighting the need for additional studies to explore similar scenarios across all water boards or the public sector in South Africa.

### **4.9.1 Research and Participant Bias**

A major challenge in a qualitative study is the potential for researcher biases and assumptions to influence the outcomes. The researcher's role within the organisation being studied might introduce an additional layer of bias, potentially leading to response bias among participants.

### **4.9.2 Time Horizon**

A cross-sectional time horizon has inherent limitations because it captures data at a specific moment in time, providing only a glimpse of the situation (Kumar, 2018). As a result, it does not account for changes and developments that occur over time.

### **4.9.3 Validity and Reliability**

Qualitative studies are inherently subjective, relying on the researcher's interpretation of non-numeric data such as interviews and observations. This subjectivity makes it challenging to apply standards of reliability and validity (Golafshani, 2003).

## **4.10 Quality Assurance**

The research focused on the influence of customer feedback to drive service innovation and ensure rigorous quality control. While reliability is commonly emphasised in quantitative research, its relevance in qualitative research is debated. Qualitative researchers prioritise trustworthiness, rigour, and quality to evaluate a study's reliability. They emphasise dependability and consistency to ensure the reliability of data and research findings (Golafshani, 2003).

#### 4.10.1 **Quality and Rigour**

A step-by-step approach was followed to enhance data collection accuracy and rigour. The research methodology prioritises providing descriptions and homogeneous purposive sampling to enhance applicability. Using an Interview guide to collect data systematically and consistently. Atlas Ti would be used to ensure the data is traceable. Consistency and comparability are ensured through standardised and extensive process documentation, allowing for meaningful participant comparisons. The iterative process of analysing findings and adjusting the interview guide ensures the study remains focused on emerging themes and capturing participant experiences. The meticulous data collection approach, including qualitative and verbatim elements, contributes to the study's overall validity.

#### 4.10.2 **Trustworthiness**

Trustworthiness is crucial for establishing confidence in the findings and maintaining the credibility of the research report. Enhancing validity and trustworthiness leads to more credible and defensible findings. Triangulation, which involves combining methods and data sources, is a strategy used to improve the validity and reliability of qualitative research findings. Reliability, validity, and triangulation in qualitative research must be redefined to reflect diverse ways of establishing truth (Golafshani, 2003). The influence of the quantitative paradigm has shaped the understanding of reliability and validity in qualitative research. Ultimately, qualitative researchers focus on trustworthiness, rigour, and quality as essential criteria for evaluating a study's validity and reliability (Golafshani, 2003).

#### 4.10.3 **Dependability**

Several strategies were employed to generate consistent and trustworthy findings to ensure the precision and reliability of this research. Precise data collection, analysis, and interpretation methods were meticulously tracked. An audit trail was created to establish dependability, documenting every step of the research process. Comprehensive notes were maintained to capture insights, decisions, and reflections

during data collection and analysis. Additionally, regular code checking and re-evaluation ensure consistency in coding and interpretation.

#### **4.10.4 Confirmability/Credibility**

Researcher reflexivity is emphasised to acknowledge the potential influence of the researcher's perspectives on the study. An adaptive approach was employed, adjusting the interview guide based on analysis findings to ensure informed decision-making. The research process was meticulously recorded and transcribed, with triangulation applied to cross-verify findings. Additionally, findings were shared with participants to confirm the accuracy of the information captured before interpretation and to provide evidence of the findings (Johnson, Adkin, and Chauvin, 2020).

### **4.11 Ethical Considerations**

Ensuring all participants acknowledge and sign informed consent forms is critical in the research process. This entails clearly articulating the study's purpose, procedures, potential disadvantages, and advantages to the participants, ensuring they fully understand their involvement before they agree to participate. Additionally, safeguarding the confidentiality of all participants is paramount. This includes implementing measures to protect their identities and personal information throughout the study. Data was anonymised, and identifying details were removed or coded to prevent any disclosure of participant identities. These steps ensure ethical standards are upheld and participant trust is maintained.

Collectively, these strategies create a comprehensive quality control framework, ensuring the research findings are valid, reliable, and applicable. This meticulous approach enhances the study's credibility and trustworthiness, providing a solid foundation for drawing meaningful and actionable conclusions.

## **4.12 Chapter Conclusion**

This chapter outlines the research methodology and data collection approach. A case study research strategy was selected to gather in-depth insights and knowledge from the participants. This chapter also identified the population, unit of analysis, data collection techniques, and data analysis tools. A total of 12 interviews were conducted and scheduled to suit the participants' requirements. The next chapter presents the study's findings.

## **CHAPTER 5: FINDINGS**

### **5.1 Introduction**

This chapter presents the insights gathered from the interviews with 12 participants. The purpose of these interviews was to gather insights and address the core research question of the study. The chapter begins by providing a detailed overview of the participant profiles, offering context regarding their backgrounds and relevance to the study. Following this, the findings of the interviews are analysed and presented. The findings are organised into key themes that emerged during the discussions, each supported by relevant participant quotations to illustrate and substantiate the analysis. Through this structure, the section aims to comprehensively understand the participants' perspectives and how they relate to the research question.

The data analysis yielded a total of 183 unique codes identified from the 12 interviews conducted. These codes were systematically grouped into categories based on shared characteristics or common topics during the analysis. As part of this categorisation process, broader patterns and ideas began to surface, developing overarching themes. These themes represent key concepts or insights that encapsulate the relationships and patterns found within the data.

### **5.2 Interview Participants and Context**

The interview participants comprised a diverse group of 15 to 35 years of professional experience. This group included a mix of senior managers, engineers, and supervisors, all holding critical roles within their respective organisations. The educational backgrounds of the participants ranged from undergraduate bachelor's degrees to PhD levels, with specialisations in business administration, leadership, and engineering. Their roles were crucial as they directly interacted with customers and were influential decision-makers, playing a pivotal part in driving service innovation on behalf of the organisation. Additionally, the participants represented

various departments within the operations division, providing a wide spectrum of perspectives.

Participants were selected based on their extensive experience in customer service and their involvement in collecting customer feedback. Those with fewer than 10 years of experience, particularly junior employees, were excluded from the study, as were employees who were not directly involved in customer feedback processes.

The study was conducted during a significant transition period where two entities had recently merged, harmonising systems and processes. This was further complicated by the introduction of new private-sector customers, in addition to the organisation's existing relationships with municipalities.

From a professional perspective, the senior managers tended to focus on the strategic integration of customer feedback and the role of leadership in driving innovation. In contrast, the engineers were more concerned with the operational challenges of implementing feedback and fostering service innovation. This division highlighted the different ways customer feedback is approached relative to the roles and functions in the organisation.

All participants provided informed consent, acknowledging their understanding that their responses would be anonymous. To safeguard the privacy of the participants, pseudonyms were utilised for all participants, ensuring confidentiality.

The interviews were held online through Microsoft (MS) Teams, which offered flexibility for participants across different business locations. Each interview lasted between 45 minutes and one hour, following a semi-structured interview guide. The guide focused on topics such as customer feedback, service innovation, and customer insights.

This diverse group of participants offered a comprehensive view of how customer feedback influences and drives service innovation, with varied insights based on their roles and organisational experiences (Table 5.1).

**Table 5.1: Participants Pseudonyms and Profiles**

<b>Pseudonym</b>	<b>Role</b>	<b>Department</b>	<b>Years of Experience</b>	<b>Educational Background</b>
John	Maintenance Engineer	Asset Management	19 years	Master's in Business Leadership
Sam	Plant Manager	Process	33 years	Btech in Water Care
Emily	Process/Quality Manager	Process & Quality	16 years	Masters in Business Administration
Lisa	Plant Manager	Process	24 years	Postgraduate in Leadership
Robert	SHEQ Coordinators	SHEQ Department	15 years	Honours: Environmental Management
Linda	Regional Manager	Operations	17 years	Master's in Business Administration
Michael	Acting Area Manager	Process	18 years	PhD: Engineering
Sarah	Acting Area Manager	Process	35 years	Bachelor's Degree: Engineering
Stuart	Maintenance Engineer	Asset Management	20 years	Masters in Engineering & Masters in Business Administration
Alan	Acting Regional Manager	Process	28 years	Master's in Business Administration
Kevin	SHEQ Manager	Operations	21 years	Master's in Business Administration

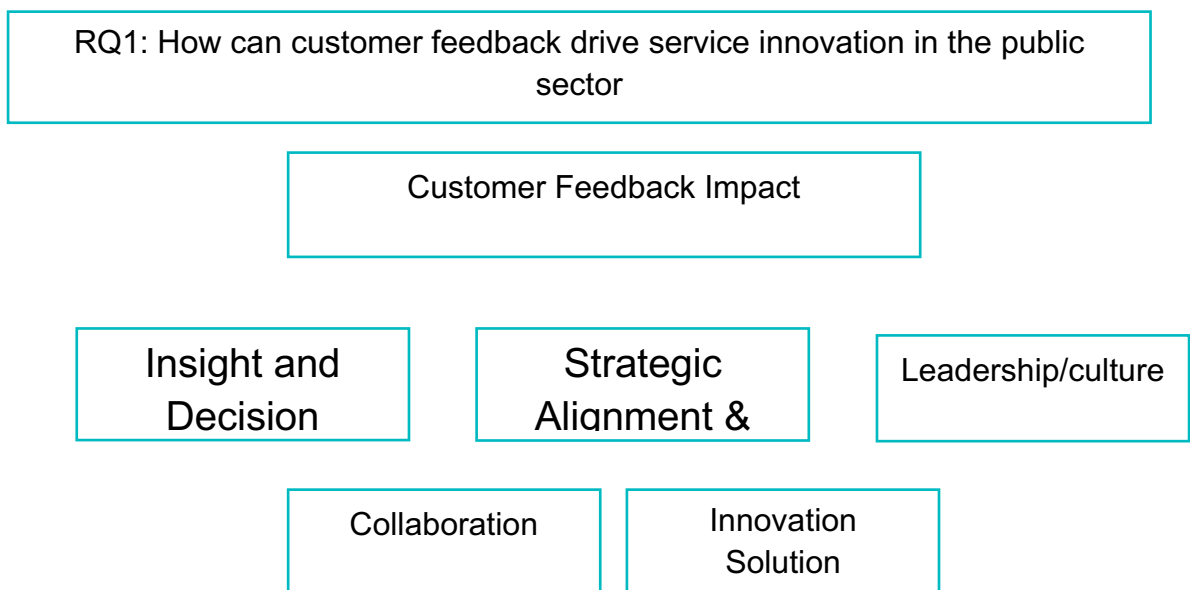
Stacey	Plant Manager	Process	15 years	Master's in Business Administration
--------	------------------	---------	----------	---

Source: Author's own.

### 5.3 RQ1: How can Customer Feedback Drive Service Innovation in the Public Sector?

This section addresses **Research Question One: How can customer feedback drive service innovation in the public sector?**

The data gathered from interviews and responses revealed several critical themes that emphasise the importance of customer feedback in driving service innovation. These themes illustrate how customer feedback is a crucial input that shapes public service delivery, guides improvements, and informs decision-making processes (Figure 5.1).



**Figure 5.1: Overview of Themes for RQ1**

Source: Author's own.

#### 5.3.1 Insights and Decision-Making

Some participants highlighted the significant value of implementing a robust customer feedback system, emphasising its critical role in enhancing decision-

making and project alignment. They noted that such a system can serve as a strategic tool for gathering insights directly from customers, allowing the organisation to better understand their needs, preferences, and pain points. This, in turn, enables leadership to make more informed and effective decisions, particularly in aligning projects with customer expectations.

*"Customer feedback plays a role through annual reports and tariff projects, where affordability and customer input are considered. The scorecard we use is based on customer interactions, making it easier to align projects with customer agreements." (Emily)*

*"Customer feedback-driven innovations can lead to more effective decision-making and a greater focus on customer needs." (John)*

*"Suggestions provide proactive improvement opportunities, and surveys give a broader sense of customer satisfaction. Anonymous feedback mechanisms offer more honest insights, leading to more effective service innovations." (Linda)*

By continuously integrating customer feedback into the planning and execution of projects, the organisation can ensure that its services are responsive and proactive in addressing potential issues before they escalate. This approach allows for timely adjustments in resource allocation, process improvements, and innovation, ultimately leading to higher service standards.

*"Customer feedback-driven innovations can have significant measurable impacts on The Provincial Water Board. These innovations can improve service quality, enhance operational efficiency, and increase customer satisfaction. The organisation can make targeted improvements that directly benefit customer experiences and operational performance by addressing specific customer feedback. The ability to measure these impacts includes assessing reductions in service interruptions, better resource allocation, and overall enhancements in service delivery." (Stuart)*

Moreover, most participants stressed that a well-structured feedback process helps identify areas for ongoing improvement, fostering a cycle of continuous enhancement in service delivery. By acting on customer insights, the organisation can implement targeted solutions that directly address customer concerns, resulting in greater

satisfaction and trust. In the long run, this proactive stance contributes to building stronger customer relationships, ensuring that service delivery is efficient and consistently exceeds expectations.

*"This could be done through newsletters, customer portals, or performance review meetings where clients are shown how their feedback is shaping improvements." (Sarah)*

*"Suggestions can drive proactive improvements, while surveys provide a broader sense of overall customer satisfaction." (Sam)*

*"Complaints highlight immediate areas for improvement, suggestions provide growth opportunities, and surveys offer a broader understanding of customer satisfaction and trends, aiding long-term service innovation." (Emily)*

*"Each type of customer feedback complaints, suggestions, and surveys uniquely shapes service improvements. Complaints drive quick fixes, suggestions guide enhancements, and surveys provide comprehensive customer insights." (Stuart)*

### **5.3.2 Strategic Alignment and Planning**

Several participants acknowledged the many benefits of a customer feedback process but highlighted several challenges that must be addressed to ensure the system is effective and sustainable. They pointed out that, for a feedback system to be truly robust, it must consider various factors, including the concerns of both customers and internal stakeholders.

*"Customer feedback collection is inconsistent, often occurring only once a year, which limits understanding of customer needs. A more regular and diverse feedback collection process is required." (John)*

*"There is mistrust among customers, especially regarding operational data like water meter readings, which leads to disputes and hinders feedback's effectiveness. Complaints and suggestions should be addressed to regain trust." (Lisa)*

*"Some customers, such as Water Service Authorities (WSAs), don't fully understand the Bulk Service Agreements (BSAs), affecting the effectiveness of customer feedback. Internally, the organisation lacks urgency and competence in acting on customer feedback, putting the organisation at risk of not fulfilling its mandate." (Stuart)*

One key challenge is political interference. Some participants noted that external political pressures in the public service context can sometimes impact decision-making and resource allocation. A customer feedback system must be designed to operate independently of such influences, prioritising customer needs based on data-driven insights rather than political considerations.

*"In the public sector, there are limitations on adopting private sector practices due to political and organisational dynamics. For instance, two major customers are paying on schedule while one is behind, and political interference often complicates feedback management." (Sarah)*

Another issue raised was the time constraints faced by management. Leaders often need more time to review and act on feedback, which can hinder the system's responsiveness. To address this, some participants stressed the importance of creating a streamlined process that allows for quick analysis and reporting, enabling management to make timely and effective decisions without being overwhelmed by the volume of feedback.

*"Time constraints for management teams often result in customer feedback falling through the cracks, leading to a mere tick-box exercise. Feedback is also sometimes avoided because it is linked to performance contracts." (Alan)*

*"One major barrier is the lack of structured customer feedback during meetings. A disconnect between operational areas and municipal management levels leads to miscommunication and inconsistent feedback processes. Additionally, the relationship between area operations and municipal management is fragmented." (Lisa)*

Lastly, most participants emphasised the need for the feedback process to be fully integrated into the organisation's broader strategic planning. Rather than treating customer feedback as an isolated function, it should be aligned with the company's

strategic objectives. This ensures that feedback drives short-term service improvements and contributes to long-term goals and innovation initiatives.

*"Customer feedback is not effectively integrated into the strategic planning process. Even when projects are escalated based on customer concerns, there is often little to no follow-through, meaning feedback doesn't lead to concrete actions." (Sam)*

*"Customer satisfaction is a key performance indicator (KPI), but other departments, such as Asset management, don't always support it effectively." (Robert)*

*"Customer feedback is incorporated into the ISO (International Organization for Standardization) management system and is supposed to inform strategic plans. However, there is no genuine commitment to thoroughly addressing feedback." (Sarah)*

By addressing these challenges, managing political interference, alleviating management's time constraints, and embedding feedback into the strategic process, the findings indicated that a customer feedback system can become more robust, resilient, and impactful in delivering meaningful improvements and enhanced customer satisfaction.

### **5.3.3 Leadership and Organisational Culture**

Most participants emphasised that for the successful execution of a customer feedback process to effectively drive service innovation, strong leadership and a supportive organisational culture are essential. They clarified that leadership must actively champion this initiative, ensuring that it becomes an integral part of the organisation's operations rather than a standalone process.

*"One significant barrier is a lack of awareness across all levels of leadership about the importance of their role within South Africa and the province of KwaZulu Natal. Employees often don't fully understand their jobs' impact on the organisation's overall success. There's a disconnect between leadership*

*and the daily operational challenges, leading to inefficiencies and a culture that doesn't prioritise customer needs." (Alan)*

*"Leadership plays a crucial role in establishing a culture that values customer feedback. Leadership needs to streamline communication and ensure that feedback is used constructively. Additionally, executives should be more engaged in customer interactions, such as year-end functions, where customers often feel undervalued. Leadership should ensure that the right people are present at key meetings to address customer concerns." (Linda)*

To achieve this, leaders must engage closely with all relevant internal and external stakeholders, including employees, customers, and partner organisations. By fostering open communication and collaboration, leadership can ensure that everyone understands the importance of customer feedback in shaping service improvements. This engagement is crucial for building trust and ensuring that feedback is acted upon promptly and meaningfully.

*"Leadership plays a critical role by engaging with their teams and sharing the rationale for valuing customer feedback. This could involve roadshows by senior managers." (Michael)*

*"Leadership plays a pivotal role in fostering a culture that values customer feedback. Leaders must actively promote the integration of feedback." (Stuart)*

*"The current leadership approach, which is sometimes motivated by personal gain or bureaucracy, hampers this progress." (John)*

*"Leadership sets the tone for how customer feedback is perceived and acted upon. A good leader will create an environment where feedback is seen as an opportunity for improvement rather than as a critique." (Sam)*

*"Leadership plays a crucial role in shaping an organisational culture that values customer feedback. Without leadership's emphasis on customer satisfaction, the organisation risks failing to meet customer expectations." (Stuart)*

*"Leaders need to actively promote customer feedback as a tool for growth and improvement, integrating it into the organisation's strategy to drive customer-centric innovation." (Stuart)*

Moreover, some participants highlighted the need for leaders to promote technology integration within the feedback process. By embracing technological tools such as AI, digital surveys, and real-time data analytics, leadership can ensure that the feedback system is efficient and capable of generating actionable insights that drive service innovation. This requires a forward-thinking leadership approach, where leaders are responsive to customer feedback and actively seek new ways to leverage it for strategic advantage.

*"For technological advancements to be effective, public-sector organisations must address internal cultural issues, such as a lack of accountability in feedback processing. Shifting towards a customer-focused mindset requires robust feedback systems that promote continuous employee learning and engagement at all levels." (Sam)*

In addition to technological integration, some participants noted that creating a culture that values continuous improvement and innovation is critical. Leaders must set the tone by encouraging a mindset where feedback is viewed as an opportunity for growth rather than criticism. This cultural shift ensures that employees are aligned with the feedback-driven innovation goals and are motivated to contribute to the process.

In summary, the findings indicated that for the customer feedback process to catalyse service innovation, leadership must take a proactive role in driving engagement, promoting technological integration, and fostering a culture that embraces change and continuous improvement.

#### **5.3.4 Collaboration**

Many participants pointed out that one of the key challenges to implementing a standardised customer feedback system is the persistence of silo mentalities within the organisation. These departmental silos hinder collaboration and cross-functional

integration, making it difficult to adopt a unified feedback system that benefits the entire organisation.

*"Breaking down silos between departments will facilitate better communication and problem-solving. For instance, having cross-functional process meetings where teams from various departments collaborate would allow for better integration of feedback." (Robert)*

*"Silo mentalities can severely impact the effective use of customer feedback by limiting information sharing between departments. This lack of collaboration can result in missed opportunities for improvement and inefficient responses to feedback." (Emily)*

For any customer feedback process to be effective and standardised, most participants stressed the need to break down these silos. Departments must move away from operating independently and instead adopt a more collaborative approach. This means fostering an environment where information, insights, and feedback flow freely across all areas of the organisation. Cross-departmental collaboration is essential, as it ensures that feedback from different touchpoints whether it's customer service, operations, or technical support is shared, analysed collectively, and addressed in a coordinated manner.

*"Collaboration is key, especially when resources are limited. By merging resources and processes across departments, the organisation can reduce costs and avoid duplication of efforts, ensuring that customer feedback is addressed in a coordinated and efficient way." (John)*

*"Cross-departmental collaboration is needed to act on customer feedback and deliver projects more efficiently. This includes breaking down silos, aligning teams, and ensuring coordination between shared services, scientific services, and infrastructure services." (Stuart)*

*"Collaboration between departments is essential for using customer feedback effectively. Different teams often operate in silos, which delays projects and frustrates customers. Cross-departmental collaboration can improve communication, allowing for quicker project delivery and greater customer satisfaction. Collaborative efforts are especially needed when addressing large-scale issues such as population growth and water distribution, where*

*multiple departments must work together to provide innovative solutions."*  
(Lisa)

Most participants also emphasised that dismantling silos requires both cultural and structural changes within the organisation. Leadership must actively promote collaboration by encouraging departments to work together toward common goals and establishing integration processes. Additionally, technology can play a key role in breaking down these barriers by creating centralised systems where data from all departments can be accessed and utilised in real-time.

Ultimately, the findings indicated that overcoming silo mentalities will allow for a more cohesive approach to customer feedback, where all departments are aligned and insights are used to drive service improvements across the board. This integrated approach will lead to a more consistent, efficient, and customer-focused service delivery, ensuring that feedback is gathered and acted upon to benefit the entire organisation.

### **5.3.5 Innovation and Solutions**

Most participants highlighted that many practices and innovations from the private sector could be effectively adopted by the public sector, particularly by The Provincial Water Board, to improve efficiency and service delivery. They noted that the private sector has significantly improved in streamlining processes and utilising digital platforms to enhance customer engagement and operational performance. These innovations offer valuable lessons and opportunities for public sector organisations aiming to modernise their approaches.

*"In the private sector, the focus is more streamlined on customer satisfaction and long-term value creation. The Provincial Water Board can adopt a more logical and structured approach, focusing on being a solid service provider without being swayed by short-term political interests." (Emily)*

*"In the private sector, feedback collection is often more streamlined through independent, external providers that use online systems to gather and analyse customer feedback. This contrasts with The Provincial Water Board's reliance on manual meetings. The private sector also has customer*

*interaction centres, which help accumulate recommendations. Although The Provincial Water Board's system is not as formalised, adopting a structured and authentic feedback process similar to that in the private sector could significantly improve how feedback is gathered and utilised." (Stuart)*

For instance, private sector companies have increasingly turned to automation, digital tools, and data-driven decision-making to create more efficient workflows. By adopting similar technologies, The Provincial Water Board can enhance its ability to manage customer feedback, streamline internal processes, and improve responsiveness. Digital platforms, such as mobile apps, online portals, and AI-powered systems, can provide more accessible and user-friendly channels for customer interaction, making it easier to gather feedback, resolve issues, and monitor service performance.

*"The private sector often engages with customers more effectively through online or web-based platforms, triggering swift interventions. There is a need to adopt such streamlined approaches." (Michael)*

*"The private sector's effective use of digital platforms for customer feedback highlights the need for streamlined, web-based approaches in The Provincial Water Board's operations." (Linda)*

*"While specific instruments from the private sector may not currently be in use, The Provincial Water Board could look to private-sector practices such as real-time feedback collection, CRM systems, and data analytics to improve its services. In the private sector, companies often use tools that allow customers to provide immediate feedback, which is then acted upon swiftly to improve service delivery. Such an approach could be adopted to better understand and respond to the needs of customers." (Sam)*

Most participants also noted that the private sector often emphasises agility and continuous improvement, qualities that could greatly benefit public sector organisations. By adopting private sector practices like real-time data analytics, predictive modelling, and automated reporting, The Provincial Water Board could enhance its decision-making capabilities, allowing for faster identification of service gaps and proactive solutions.

Additionally, some participants emphasised the importance of adapting these innovations to the unique context of the public sector. While the private sector's focus on profitability may differ from the public sector's focus on public service, the underlying principles of efficiency, customer satisfaction, and operational excellence are applicable across both sectors. By carefully selecting and customising these private sector innovations, The Provincial Water Board can enhance its service delivery, ensuring that it meets the evolving needs of the communities it serves.

*"While specific private-sector practices may not be directly transferable to the public sector, general principles can be adopted. These include regular feedback loops, continuous engagement with customers, and a focus on customer satisfaction as a key performance indicator. Private companies often prioritise fast and direct responses to feedback, which could improve service delivery and innovation at The Provincial Water Board." (Sam)*

### **5.3.6 RQ1 Summary**

The themes from the findings highlighted the importance of customer feedback as a driver for service innovation, focusing on key factors such as challenges, leadership, technology, and collaboration. These factors enable feedback to serve as a catalyst for enhancing public service delivery and can transform feedback into a powerful tool for service innovation.

Challenges in feedback utilisation include the lack of structured processes for feedback collection, inconsistent methods of gathering feedback, and the absence of integration between customer input and strategic planning. Addressing these challenges by implementing regular, formalised processes for feedback collection through digital tools and standardised channels can provide a consistent flow of actionable insights.

Leadership plays a crucial role in fostering a feedback-driven culture within public organisations. Leaders must encourage departments to collect and use feedback as a basis for strategic decision-making, ensuring accountability and aligning leadership priorities with customer needs.

Technology is another vital pillar in leveraging customer feedback for service innovation. Advancements in technology, such as AI, machine learning, and digital

survey platforms, allow for real-time data analysis, enabling public organisations to quickly identify trends and areas for improvement. This enables better service delivery by providing up-to-date information on service performance and predicting future needs.

Cross-departmental collaboration is essential for effective feedback utilisation. Collaborative tools like MS Teams or integrated platforms facilitate this process, ensuring that different teams align their efforts to better serve the public. Structured processes guide feedback collection, analysis, and implementation, ensuring that feedback is collected regularly, categorised by themes, and translated into actionable insights.

In conclusion, when these key pillars are aligned, customer feedback can become the fuel for service innovation, allowing public sector organisations to respond to customer needs and anticipate future challenges, continuously improving service delivery through customer-centric innovation.

## **5.4 RQ2: How can Technological Advancements Play a Role in Facilitating the Integration of Customer Feedback for Service Innovation?**

The sections focus on exploring how technological advancements can enhance the integration of customer feedback to drive service innovation. Through an analysis of the collected data, several key themes emerged that underscore the critical role of technology in this process. The participants highlighted the below:

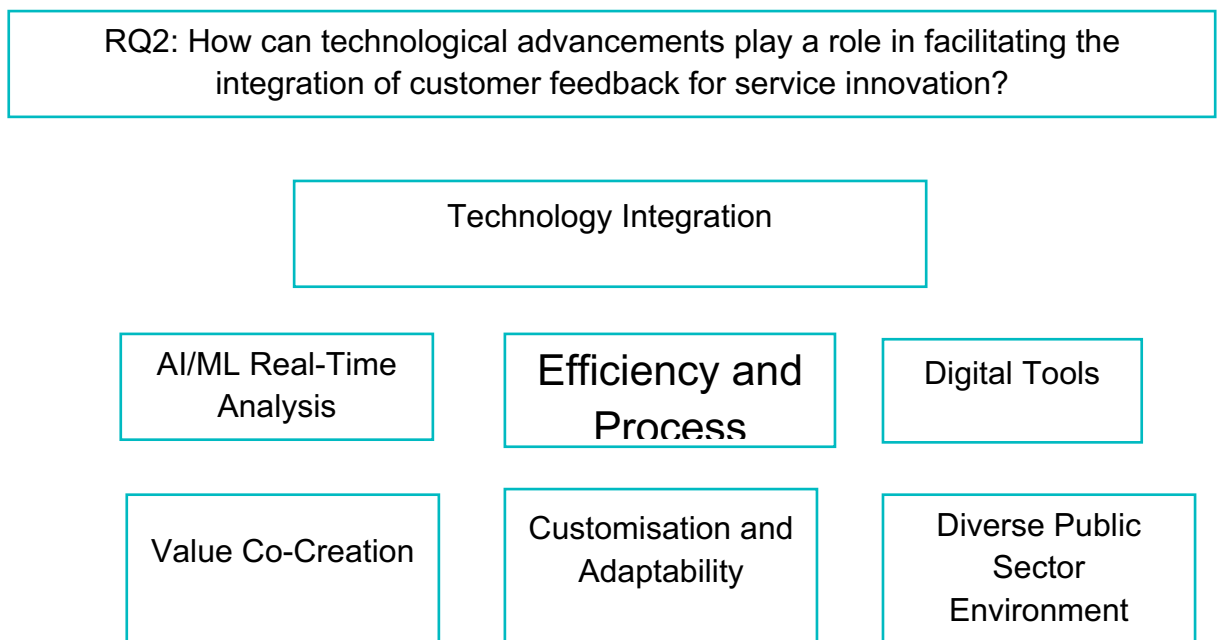
Firstly, technology enables more efficient and dynamic feedback collection. Digital tools such as mobile applications, AI, and machine learning facilitate real-time data gathering from customers, allowing for quicker identification of issues and service improvement opportunities. These tools streamline the process, making it easier for organisations to analyse customer input and implement changes promptly.

Secondly, the integration of customer feedback through technology supports more informed decision-making. Organisations can gain deeper insights into customer behaviour and needs by leveraging business intelligence systems, automated

reports, and AI-driven analytics. This helps align services and resources more effectively with customer expectations, ensuring service delivery is continuously refined and optimised.

Lastly, the themes highlighted the importance of inclusivity in technology implementation. While technological advancements offer numerous benefits, they must be designed to accommodate diverse customer bases, including those in remote areas with limited internet access. Alternative feedback mechanisms, such as short message service (SMS) and offline platforms, were noted as essential to ensure all customers can contribute, regardless of their technological or infrastructural limitations.

These insights underline how technology can transform customer feedback into a powerful driver of service innovation, improving both operational efficiency and customer satisfaction (Figure 5.2).



**Figure 5.2: Overview of Themes for RQ2**

Source: Author's own.

### 5.4.1 AI and ML in Real-Time Feedback Analysis

All the participants expressed that AI and machine learning (ML) hold significant potential to enhance service delivery by identifying trends and predicting future

developments. These technologies can greatly improve the organisation's responsiveness by utilising real-time data to inform decision-making processes.

*"AI and ML enable real-time analysis of customer feedback by quickly identifying trends, sorting feedback by urgency, and performing sentiment analysis. These technologies allow public service organisations to proactively address key issues and innovate by prioritising critical feedback." (Sarah)*

*"AI and machine learning offers the ability to process large volumes of customer feedback quickly, identifying patterns and trends that manual methods may overlook. These technologies enable organisations to sort feedback by urgency or topic, allowing for prioritised action." (John, Lisa)*

*"AI-driven sentiment analysis can gauge customer satisfaction and predict future needs based on historical feedback, supporting proactive decision-making." (Stuart, Alan)*

With the implementation of AI and ML, the findings indicated that the Provincial Water Board could detect patterns in service usage, customer feedback, and operational efficiency, enabling it to anticipate future challenges and opportunities. Using AI-powered dashboards would provide a visual representation of critical data points, highlighting areas needing immediate attention. This allows for faster, data-driven decisions, leading to quicker resolution of issues, improved resource allocation, and more strategic long-term planning.

*"Tools such as SAP (Company specialising in System Application and Products in Data Processing) dashboards, AI, and feedback management platforms enable data-driven decision-making by providing comprehensive and real-time insights into customer interactions and service failures. This allows public organisations to make informed decisions, enhancing service innovation." (John)*

*"By integrating AI into customer feedback processes, the public sector can enhance service responsiveness, reducing the time to address critical issues like complaints." (Emily)*

Furthermore, by offering predictive insights, AI and ML can help the organisation optimise its operations, enhance service innovation, and continuously improve customer satisfaction. The ability to forecast trends and take proactive measures

based on real-time analytics positions The Provincial Water Board to offer more dynamic and responsive services that are aligned with modern demands for efficient and adaptive public service delivery.

#### **5.4.2 Efficiency and Process Improvement**

Participants recognised the existing systems as valuable tools for driving operational efficiency and improving customer feedback mechanisms. Specifically, the SAP system, which is currently being utilised, was highlighted for its ability to generate Business Intelligence (BI) reports and facilitate integration across various departments. This integration is essential for ensuring standardisation across processes and enhancing the responsiveness to customer needs.

*"Public service organisations can use tools like SAP and dashboards to track service failures, operational data, and customer feedback. This creates a feedback loop where insights guide improvements and support decision-making." (John, Michael)*

Participants pointed out that departments can access comprehensive data that provides insights into performance metrics, customer feedback, and operational bottlenecks through SAP's advanced reporting capabilities. These reports allow for better-informed decision-making, identify areas requiring improvement, and ensure services are delivered more consistently and efficiently.

Moreover, findings indicated that the system's ability to integrate data and processes from multiple departments creates a unified platform where information flows seamlessly, reducing redundancies and communication gaps. This standardisation across the organisation ensures timely and uniform responses to customer queries and concerns, enhancing the overall customer experience. The participants all believe that with continued refinement and strategic use of these systems, The Provincial Water Board can further improve its service delivery and strengthen its relationship with the communities it serves.

*"Integration of feedback management systems with existing IT infrastructure ensures real-time data sharing and analysis across departments, driving service efficiency and better customer responses." (Emily, Linda)*

*"Modular design and the use of APIs (Application Programming Interfaces) can enhance the flexibility and scalability of feedback systems, ensuring seamless integration with existing public sector tools like ERP (Enterprise Resource Planning) platforms." (Stuart, Alan)*

### **5.4.3 Digital Tools**

All participants emphasised the potential of various digital tools that can be tailored to meet the needs of The Provincial Water Board's diverse customer base. They discussed how data can be effectively collected from existing social media platforms and leveraged to enhance service delivery. These digital tools provide an efficient way to gather real-time feedback, opinions, and customer concerns, offering valuable insights into public sentiment and service performance.

*"Digital tools like customer feedback apps, online survey platforms (e.g., SurveyMonkey, Google Forms), and social media platforms allow public sector organisations to gather real-time, scalable feedback. This enables ongoing feedback collection rather than annual reviews." (Sam, Lisa, Stuart)*

*"Technology plays a vital role in managing customer feedback and using it to drive innovation. Tools like SAP and dashboards provide data-driven insights that can guide service improvements and innovations. The theme shows how technology can facilitate the transformation of feedback into practical innovations." (Stacey)*

By integrating social media data into the organisation's feedback system, findings indicated that the Provincial Water Board can significantly reduce the time needed for data analysis. With these tools built directly into the system, the process of sorting, categorising, and analysing customer feedback would be automated. This automation would allow the organisation to quickly identify key trends, service issues, and opportunities for improvement without the manual effort typically required for data collection and processing.

*"These tools can reduce the waiting period for processing customer complaints, improving organisational responsiveness and service innovation." (Robert)*

Additionally, all the participants highlighted that using digital tools designed for various communication channels such as mobile apps, SMS platforms, and online surveys would ensure inclusivity, making it easier for all customer segments to participate. The faster analysis enabled by these tools would allow the organisation to respond more promptly to customer concerns and service demands, ultimately improving customer satisfaction and operational efficiency.

*"Electronic surveys, voice notes, and work-related platforms ensure that feedback is collected and analysed continuously, driving actionable strategies for service improvements." (Emily)*

*"Feedback management systems should capture and translate customer feedback into actionable insights. This can be done through segmentation, where feedback is categorised into themes, making it easier to implement targeted service innovations. Feedback should drive continuous improvements across public services, promoting transparency and accountability." (Lisa)*

#### 5.4.4 Value Co-Creation

According to **PSDL**, value is co-created with the customer rather than being delivered by the organisation alone. The integration of technology in customer feedback management enhances the **co-creation** of value by enabling customers to actively participate in service innovation through real-time feedback. Participants said the following:

*"By using AI, machine learning, and digital platforms to collect and analyse feedback, public service organisations can **collaborate** with customers to continuously improve services, aligning innovations with the customers' evolving needs and expectations." (Sam, Lisa)*

*"Technology facilitates transparency, accountability, and responsiveness, which are key elements of PSDL. Feedback management systems ensure that customer voices are considered in strategic decisions, leading to a more **customer-centric approach.**" (Stuart)*

#### **5.4.5 Customisation and Adaptability**

Almost all of the public sector participants expressed a need for technology customisation and adaptability for quick adoption that caters to the entity's specific needs.

*"While tools like SAP are widely used, they may require customisation to fit the specific needs of public sector entities. Adopting cloud-based or modular systems allows for greater flexibility, enabling real-time access and better management of feedback data." (Alan, Sarah)*

*"The public sector can explore systems that allow easy integration with existing platforms, improving data accessibility and cross-departmental collaboration, which is essential for handling large volumes of feedback and ensuring responsiveness." (Stuart, Robert)*

#### **5.4.6 Diverse Public Sector Environment**

Most participants expressed that while technological advancements offer significant benefits, these solutions must remain inclusive and considerate of the diverse needs of The Provincial Water Board's customer base. They noted that many customers, particularly those in remote or underserved areas, may face infrastructure limitations such as limited or no internet access due to their geographical location.

*"Balancing the need for inclusivity with technological advancement is essential to avoid excluding specific customer groups from the feedback process." (Robert)*

Given these challenges, the participants stressed the importance of designing technology-driven systems accessible to all, regardless of technological infrastructure. This could involve creating alternative communication channels, such as SMS-based platforms or even offline tools that do not rely on high-speed internet. By ensuring that feedback and service interaction systems are adaptable to different levels of connectivity, The Provincial Water Board can promote inclusivity and ensure that even those in the most remote regions can participate in the feedback process.

*"Public sector organisations like The Provincial Water Board must ensure that technological innovations cater to a diverse customer base. This includes considering geographic and infrastructure limitations, where customers in remote areas may not have reliable internet access, necessitating the continued use of paper-based systems alongside digital tools." (Robert)*

Moreover, most of the participants highlighted the need to maintain traditional methods of customer engagement alongside digital solutions. This hybrid approach would guarantee that no customer is left behind, bridging the digital divide and fostering a more equitable service delivery system. In this way, technology can be leveraged to enhance service delivery without marginalising those with limited access to digital infrastructure.

#### **5.4.7 RQ2 Summary**

The highlighted themes from participants underscore the significant role technological advancements can play in enhancing the integration of customer feedback within The Provincial Water Board, which is in alignment with the PSDL theory. These themes emphasise how digital tools can foster a collaborative relationship between The Provincial Water Board and the citizens it serves, promoting the co-creation of value, driving service innovation, and ultimately improving overall service delivery.

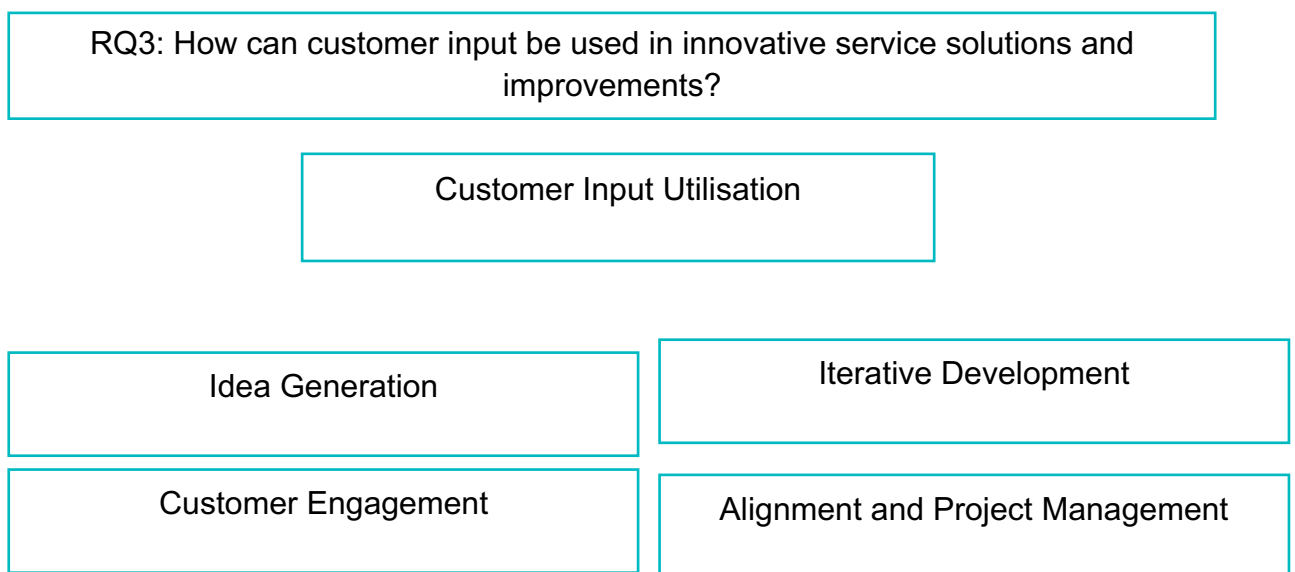
By leveraging technological advancements such as mobile applications, digital surveys, and artificial intelligence the Provincial Water Board can more effectively gather and analyse customer feedback to innovate its services. These technologies provide a streamlined approach for continuous engagement with the public, making it easier to collect real-time insights into service challenges and opportunities for enhancement.

For this feedback system to be effective, the digital tools must be designed to be inclusive, user-friendly, and accessible to all segments of the population. This ensures that all citizens, regardless of their technological proficiency, are empowered to contribute to the improvement of services. Furthermore, the system must encourage ongoing dialogue between the service provider and the community, supporting a culture of continuous improvement that is fully aligned with the principles of PSDL. This co-creation approach elevates service standards and

strengthens trust and collaboration between The Provincial Water Board and its stakeholders.

## 5.5 RQ3: How can Customer Input be Used in Innovative Service Solutions and Improvements?

This section covers how customer input utilisation can directly affect the improvement of innovative solutions. The customer input utilisation looks into the idea generation that comes from the feedback process and strategic alignment with what the customer wants. The service delivery focus looks at how the public sector can be iterative with the feedback received to develop more innovative solutions and the importance of constantly engaging with customers to ensure that their needs are part of our focus. Below is a high-level diagram that depicts the themes highlighted by participants above as important in the utilisation of customer input to drive service innovation (Figure 5.3).



**Figure 5.3: Overview of Themes for RQ3**

Source: Author's own.

### 5.5.1 Idea Generation

Participants agreed that customer input acts as a powerful source of inspiration for new ideas. By systematically gathering and analysing feedback, organisations can identify unmet needs, pain points, and opportunities for innovation. This proactive approach allows the company to develop solutions that are more in tune with what customers truly want, leading to more meaningful and practical innovations.

*"A phased approach can be effective, where feedback is initially used on a small scale to test potential innovations. Once those innovations prove successful and generate actionable insights, they can be rolled out more broadly. Using programs that allow for real-time data collection and analysis, such as SAP dashboards, could help managers quickly identify trends and areas for improvement." (Emily)*

Most participants revealed that different type of feedback such as complaints and suggestions from customers gives rise to different ideas to help action the insights from the customers. This important because neglecting such feedback could cause mistrust among customers.

*"Complaints signal deviations from expected service levels, like water shortages or billing issues, and they should trigger immediate corrective actions." (John)*

*"Different types of feedback play varied roles in driving service innovation. Complaints often highlight areas where immediate action is needed, while suggestions can provide insight into potential service improvements. Surveys offer a broader understanding of customer satisfaction and help track long-term trends. At present, there is some mistrust among customers who scrutinise operational data. This lack of trust can impact how feedback is perceived, especially when it comes to contractual obligations like the volume of water provided." (Lisa)*

*"Each type of feedback offers different insights. Complaints highlight areas where the service is falling short and needs immediate action, while suggestions may reveal opportunities for enhancement. On the other hand,*

*surveys can provide a broader perspective on customer satisfaction and expectations. Together, these forms of feedback guide innovation by pointing out both problem areas and potential improvements." (Robert)*

*"Complaints often carry an emotional impact but can drive significant improvements when used constructively. Feedback from different sources should be seen as data points that provide insights into areas needing attention. For example, training could focus on soft skills like emotional intelligence to help employees view feedback as constructive criticism rather than a personal attack." (Michael)*

*"Different types of customer feedback influence service innovation in distinct ways. Complaints often highlight urgent issues or pain points that require immediate attention and can drive rapid improvements to address critical service failures. Suggestions provide constructive ideas for enhancements or new features, guiding innovation in areas that customers feel would add value. Surveys offer broad insights into customer satisfaction and preferences, helping the organisation identify overall trends and areas for strategic development." (Emily)*

*"Suggestions can drive proactive improvements, while surveys provide a broader sense of overall customer satisfaction. Anonymous feedback mechanisms could provide more honest insights, leading to more effective service innovations." (Sam)*

Some insights from the findings revealed that actioning and gathering new ideas from the customer insights still require constant communication with the customer on the changes.

*"Changes could be communicated during stakeholder forums or customer sessions held every six months or annually. High-level feedback could also be shared quarterly to keep customers updated on actions taken." (Stuart)*

*"To ensure that service innovations meet the diverse needs of their customer base, The Provincial Water Board should conduct thorough assessments and due diligence to understand the specific needs and challenges of different customer segments. Customising strategies and solutions to address these varied needs is essential. Innovations should be designed with flexibility to*

*adapt to different customer requirements. By tailoring approaches to individual customer contexts and applying insights from diverse feedback, the organisation can develop solutions that effectively address the unique needs of its customer base." (Alan)*

In summary, customer input has proven to be valuable for idea generation according to the participants, particularly when examining complaints and suggestions as tools that integrate customer feedback into the service innovation process. Additionally, certain platforms can play a crucial role in facilitating the collection of more ideas.

### **5.5.2 Iterative Developments**

Findings indicate that feedback should not be viewed as a one-time occurrence but as part of an ongoing, iterative process. Businesses can refine and enhance their offerings by continuously incorporating customer insights into the development cycle. This iterative approach allows for incremental improvements, testing, and adaptation, ensuring that the final product or service is optimised to meet customer demands. Iteration also ensures agility in responding to customer preferences or market conditions changes.

*"If feedback is properly structured and implemented, it could lead to transformative changes. Moving from physical forms to digital engagement, for example, would reduce delays and miscommunication, leading to faster resolution of issues and greater customer satisfaction. Streamlined feedback processes can improve operational efficiency, service delivery, and a stronger customer relationship." (Sam)*

*"Feedback management systems need to be designed with flexibility and scalability in mind. They should integrate easily with existing platforms, such as CRM or ERP systems, and allow for real-time data sharing across departments. ICT should take the lead in ensuring that these systems are user-friendly and provide value by enabling actionable insights to be drawn from customer feedback. Regular updates and training on how to use the system effectively will also be necessary for staff." (Robert)*

*"While SAP may not be ideal, other software solutions that allow for integration with existing systems should be explored. A cloud-based system with centralised data storage could be more efficient and allow for real-time access across departments, helping to streamline the feedback process." (Linda)*

*"Public announcements through the organisation's website, social media platforms, or local media can also be used to share major changes." (Alan)*

In summary, participants highlighted that iterative development necessitates the use of online platforms to achieve scalability while ensuring that the process remains user-friendly and yields actionable insights.

### **5.5.3 Customer Engagement**

Participants said that regular and consistent engagement with customers is essential to ensure that their needs remain at the forefront of innovation. This ongoing dialogue provides real-time insights into customer expectations and ensures that any shifts in their preferences are promptly addressed. Continuous engagement fosters a collaborative relationship where customers feel heard and valued, strengthening their loyalty and trust in the brand while also providing a steady flow of actionable insights for future innovations.

*"To ensure that service innovations meet diverse customer needs, The Provincial Water Board should engage in regular communication with different customer segments, including municipal clients, communities, and industrial users. Conducting needs assessments, hosting community forums, and using segmented customer surveys can provide a clearer picture of varying expectations. Innovations should be tailored to address these specific needs related to water quality, supply reliability, or affordability. Continuous feedback loops will ensure that innovations remain relevant and effective." (Robert)*

*"Leadership plays a crucial role in establishing a culture that values customer feedback. Currently, the responsibility for customer communication is unclear, with the stakeholder manager often over-communicating without clear limits. Leadership needs to streamline communication and ensure that feedback is used constructively. Additionally, executives should be more engaged in customer*

*interactions, such as year-end functions, where customers often feel undervalued. Leadership should ensure that the right people are present at key meetings to address customer concerns." (Lisa)*

*"Furthermore, there's a lack of communication and transparency within departments, with important operational information, such as the status of water quality or chemical usage, not being shared consistently..." (Kevin)*

*"Currently, the responsibility for customer communication is unclear, with the stakeholder manager often over-communicating without clear limits..." (Stacey)*

Findings indicated that customer engagement is essential for achieving customer satisfaction and building trust. Clear communication is crucial, highlighting the importance of involving the right individuals when interacting with customers and ensuring that communication roles are well-defined.

#### **5.5.4 Alignment and Project Management**

Findings indicated that a crucial aspect of using customer input is ensuring that innovation aligns with the company's strategic direction while also addressing the evolving needs of customers. Customer feedback helps refine product or service development goals, ensuring that the organisation's innovation efforts remain relevant and customer-centric. Companies can ensure their solutions remain competitive and responsive to market demands by continuously aligning strategic initiatives with customer expectations.

*"Although the customer is at the heart of service delivery, their feedback doesn't always translate into strategic planning. Meeting the Bulk Service Agreement should mean incorporating customer needs into the organisation's strategic sessions. However, key areas such as supply and demand, service interruptions, and water losses aren't always driven by customer feedback, even though they should be integral to strategic discussions." (Emily)*

*"Customer feedback plays a limited role in the strategic planning processes of The Provincial Water Board. While the organisation has a strategic vision, such as Vision 2050, which provides general guidelines and thematic areas that*

*consider customer needs, there is a significant gap in translating these high-level strategies into practical applications at various organisational levels. This disconnect results from insufficient communication and understanding of how strategic objectives align with daily operations. For effective strategy execution, it is crucial to ensure that all employees understand their roles within the broader strategy and that there is alignment between strategic goals and everyday tasks."* (Alan)

*"To ensure that service innovations meet diverse customer needs, The Provincial Water Board should engage in regular communication with different customer segments, including municipal clients, communities, and industrial users. Conducting needs assessments, hosting community forums, and using segmented customer surveys can provide a clearer picture of varying expectations. Innovations should be tailored to address these specific needs related to water quality, supply reliability, or affordability. Continuous feedback loops will ensure that innovations remain relevant and effective."* (Kevin)

Challenges enumerated by participants exist in strategic alignment and include a lack of structured feedback that can be aligned to the strategic direction of the entity and the culture that exists that looks into self gains rather than service delivery objectives.

*"One major barrier is the lack of structured feedback during meetings. A disconnect between operational areas and municipal management levels leads to miscommunication and inconsistent feedback processes. Additionally, the relationship between area operations and municipal management is fragmented, which limits how feedback is shared or utilised across different levels of the organisation."* (Lisa)

*"There is also a significant cultural issue where employees focus more on individual gains than service delivery. A lack of internal and external feedback systems compounds this disconnect. Internally, feedback is often treated as a tick-box exercise with no real follow-up or accountability. There's a need for a strong, customer-focused feedback system that fosters learning from mistakes and promotes continuous improvement."* (Alan)

In summary, the findings indicate that customer feedback plays a limited role in strategic alignment and the main challenges include a lack of structured customer feedback and the culture that exists in the entity that does not promote customer satisfaction.

### **5.5.5 RQ3 Summary**

Findings indicate that customer input is essential for driving service innovation, but its effectiveness depends on how feedback is utilised and integrated into the organisation's processes. Feedback should be treated as a powerful tool for idea generation, offering valuable insights into customer needs and pain points that can inspire new products or services. However, to truly capitalise on customer input, it must align with the organisation's broader strategic goals, ensuring that innovations support both customer satisfaction and business objectives. This requires viewing the feedback process as interactive and iterative, where constant engagement with customers leads to continuous refinement and improvement of solutions. Regular communication is key, allowing companies to remain aligned with evolving customer expectations and ensuring that any innovations developed are relevant and resonate with their current needs. In this way, customer feedback becomes a dynamic force that informs innovation and strengthens the relationship between the company and its customers.

## **5.6 Chapter Conclusion**

**For RQ1:** Feedback Impact, customer feedback emerged as a key driver of service innovation, shaped by challenges, leadership, technology, and collaboration. Feedback can enhance public service delivery and drive innovation, though challenges like unstructured processes and inconsistent methods hinder its effectiveness. Leadership promotes using feedback in strategic decisions, while technology like AI enables real-time data analysis. Supported by tools like MS Teams, cross-departmental collaboration is essential for effective feedback utilisation. Structured, regular processes ensure actionable insights, aligning feedback with organisational priorities to improve service delivery.

**For RQ2:** Technology Integration, advancements such as mobile apps, digital surveys, and AI were found to significantly improve customer feedback integration within The Provincial Water Board. These tools promote co-creation, innovation, and better service delivery by fostering collaboration between the company and its citizens. The system must be inclusive and user-friendly, empowering all segments of the population to contribute, thereby enhancing service standards and strengthening trust.

**For RQ3:** Customer Input Utilisation, the study showed that customer input is crucial for innovation but must be effectively integrated into organisational processes. Feedback should generate ideas and align with strategic goals to ensure customer satisfaction and business success. The process should be interactive and iterative, with regular communication to adapt to evolving customer needs, thus strengthening relationships with customers.

# CHAPTER 6: DISCUSSION

## 6.1 Introduction

This section delves into the analysis of the field data collected through semi-structured interviews, which were previously presented in Chapter 5, and provides a detailed discussion of the findings. The debate is closely aligned with the research questions, offering insights into the role of customer feedback in driving service innovation. The findings are evaluated by comparing and contrasting them with existing literature, thereby contributing to customer feedback and service innovation knowledge.

The primary goal of this discussion is to interpret the findings when compared with the literature in the context of the research questions. These questions focus on understanding how customer feedback informs service improvements, the mechanisms used for collecting and utilising feedback, and the impact of feedback on service delivery and organisational innovation. Through examining the interview findings, several key themes emerge: insights and decision-making, collaboration, strategic alignment and planning, innovative solutions, and the role of leadership and organisational culture in embracing feedback as a tool for service innovation.

The findings are then compared with established theories and models in the literature. For instance, the role of customer feedback as a tool for continuous improvement is widely supported in academic research, particularly in public sector service innovation. However, the interview data reveals unique insights into public organisations' specific barriers, such as resistance to change and inadequate technological infrastructure for processing feedback in real-time. These insights provide a nuanced understanding of how customer feedback mechanisms must be adapted in different organisational contexts, extending the existing literature on feedback utilisation.

Furthermore, this section highlights areas where the data aligns with or diverges from previous studies, offering new perspectives on the relationship between customer feedback and innovation. The interview findings suggest that while many organisations recognise the importance of feedback, translating this input into

actionable innovation often depends on cross-departmental collaboration and the strategic integration of advanced technologies. By contrasting these findings with existing models of customer-driven innovation, the discussion outlines potential gaps in current knowledge and proposes new avenues for future research.

The thematic analysis process was generated from Atlas.ti, where codes were generated from the transcripts, and based on the generated codes, categories were formed. Ultimately, the themes were formed as sub-headings to this chapter. The resulting themes are visually depicted in Table 6.1, offering a comprehensive overview of the analysis and highlighting the most significant findings that emerged from the coding and categorisation process. The full list of codes is listed in Appendix F.

**Table 6.1: Mapping of Categories and Theme Formation**

Research Question	Categories	Themes
RQ1: How can customer feedback drive service innovation in the public sector	<ul style="list-style-type: none"> <li>● Alignment</li> <li>● Planning and resource allocation</li> <li>● Customer Alignment &amp; Needs</li> <li>● Strategic Impact and Decision-making</li> <li>● Service Delivery and Innovation</li> <li>● Customer feedback and insights</li> <li>● Customer Needs</li> <li>● Customer Experience</li> <li>● Innovation</li> <li>● Continuous Improvement</li> <li>● Effective decision making</li> <li>● Leadership</li> </ul>	<ul style="list-style-type: none"> <li>● Insight and Decision-making</li> <li>● Leadership Culture</li> <li>● Collaboration</li> <li>● Innovation and Solutions</li> <li>● Strategic Alignment and Planning</li> </ul>

Research Question	Categories	Themes
<p>RQ2: How can technological Do advancements play a role in facilitating the integration of customer feedback for service innovation?</p>	<ul style="list-style-type: none"> <li>● Data Collection and Analysis</li> <li>● Feedback and Customer Interaction</li> <li>● Technology and Platform Integration</li> <li>● Efficiency and Continuous Improvement</li> <li>● Process Efficiency</li> <li>● Process Improvement</li> <li>● Project</li> <li>● Management and Strategy</li> <li>● Value Creation</li> <li>● Adaptation and Change Implementation</li> <li>● Continuous improvement</li> <li>● Utilisation and Efficiency</li> </ul>	<ul style="list-style-type: none"> <li>● AI/ML real-time data</li> <li>● Efficiency of the feedback system</li> <li>● Digital Tools</li> <li>● Value Co-creation</li> <li>● Customisation and adaptability</li> <li>● Diverse public sector environment</li> </ul>
<p>RQ3: How can customer input be used in innovative service solutions and improvements?</p>	<ul style="list-style-type: none"> <li>● Customer-centric design and solutions</li> <li>● Feedback and Improvement</li> <li>● Customer Needs, Preferences, and Satisfaction</li> <li>● Alignment and Strategic Decisions</li> <li>● Strategic Alignment</li> <li>● Project</li> <li>● Management</li> <li>● Project</li> <li>● Commitment</li> </ul>	<ul style="list-style-type: none"> <li>● Customer input utilisation</li> <li>● Idea Generation</li> <li>● Iterative Development</li> <li>● Customer Engagement</li> <li>● Alignment and Project Management</li> </ul>

Source: (Thematic analysis of findings: Atlas.ti).

Table 6.1 illustrates how the categories were translated into themes in Chapters 5 and 6. These themes provide a structured framework for analysing the research findings, linking them to the study's objectives, and addressing the research questions. The mapping process highlights the connections between customer feedback, technological advancements, and customer input in driving service innovation, offering a cohesive foundation for the discussions in these chapters.

## **6.2 RQ1: How can Customer Feedback Drive Service Innovation in the Public Sector?**

The first research question explored how customer feedback influences and drives service innovation. The findings revealed several key themes that are directly related to this impact. These themes provide valuable insights into how customer feedback shapes service delivery improvements and innovation. This perspective emphasises value co-creation between service providers and customers, making customer feedback a critical driver in enhancing public services and fostering continuous innovation. The literature indicates that customer feedback drives service innovation in the public sector through co-design involvement, understanding user needs, value co-creation, collaboration, implementation requirements, and addressing vulnerable groups (Trischler et al., 2019). This approach helps organisations make informed design choices, ensures relevance, and bridges the gap between innovative concepts and practical realisation.

### **6.2.1 Insight and Decision-making**

The analysis of the findings highlights that customer feedback plays a crucial role in driving service innovation at the provincial water board by providing valuable insights into customer needs and expectations. One of the key ways it assists the organisation is through the identification of specific issues. Customer complaints act as early warning signals, highlighting areas of dissatisfaction that prompt quick corrective action, leading to improvements in service delivery. Regular feedback sessions also create a platform for open discussions, allowing departments to respond swiftly to ongoing concerns and adapt their processes accordingly,

fostering a culture of continuous improvement.

The findings further noted that the feedback collected, whether through complaints, suggestions, or surveys, offers actionable insights that can be transformed into strategies to enhance service delivery. By analysing these inputs and linking them to performance metrics, the organisation gains a deeper understanding of customer needs. This enables the Provincial Water Board to guide its project developments and strategic plans more effectively, ensuring that its services align with customer expectations. Integrating feedback into strategic planning processes further strengthens this alignment by informing key initiatives like annual reports and tariff adjustments. Despite these advantages, some limitations hinder the full potential of customer feedback. One issue highlighted in the findings is the lack of standardisation in the feedback collection process. Inconsistent methods can lead to unreliable data, while feedback that is too closely tied to performance appraisals may create reluctance among staff to engage openly. Additionally, a communication gap between operational levels and management often results in valuable feedback being overlooked or inadequately addressed. This disconnect diminishes the effectiveness of insights that could otherwise drive meaningful service innovations.

A Few participants noted that political interference and bureaucracy also pose challenges. In some cases, leadership priorities are influenced by personal or political interests, distorting the feedback loop and preventing an accurate interpretation of customer needs. Moreover, inconsistent follow-through can hamper its application even when feedback is acknowledged. Without a strong commitment to addressing and acting on customer feedback, the organisation risks missing opportunities to improve service, limiting the overall impact of this valuable input.

User feedback is crucial for service innovation, especially in co-design, as it provides context-specific insights, diverse perspectives, and innovative ideas while fostering ownership, acceptance, and broader social innovations through equal participation and collaborative efforts which confirms (Trischler et al., 2019). In the findings data analytics enhances decision-making by combining customer feedback with operational data, enabling companies to make informed decisions about service enhancements and innovation strategies, resulting in more responsive and

customer-orientated services hence (Akter et al., 2023). Customer feedback provides valuable insights that help organisations identify areas for improvement and validate ideas before implementation as per (Vickers et al., 2017). Customer feedback information helps the organisation make informed decisions when investing in innovation. Social media allows businesses to create communities where users can share their experiences, suggestions, and even complaints related to a service. This collective feedback can guide service enhancements and innovations as per (Bhimani et al., 2019). Leaders can guarantee that customer feedback is consistently integrated into strategic planning. This may involve creating processes for the timely collection, analysis, and implementation of feedback (Deepal & Jayamaha, 2023).

In summary, the following literature and the analysis confirms and support that customer feedback provides insights and decision-making and drives service innovation. Trischler et al. (2019) stated that user feedback is crucial in service innovation, especially in co-design, and that agrees with the analysis that customer feedback gives insights into customer needs and expectations through open discussions and using customer feedback as warning signals. Akter et al. (2023) further suggest that data analytics enhance decision-making by combining customer feedback and operational data, resulting in innovative customer-orientated service strategies. Customer feedback provides valuable insights that help organisations identify areas for improvement and validate ideas before implementation (Vickers et al., 2017). The findings indicate that customer feedback informs strategies to enhance service delivery. The findings further noted that the feedback collected, whether through complaints, suggestions, or surveys, offers actionable insights that can be transformed into strategies to enhance service delivery. This confirms and supports the literature that leaders can guarantee that customer feedback is consistently integrated into strategic planning. This may involve creating processes for the timely collection, analysis, and implementation of feedback (Deepal & Jayamaha, 2023). Akter et al. (2023) further suggest that data analytics enhance decision-making by combining customer feedback and operational data, resulting in innovative customer-orientated service strategies.

The following analysis contradicts with literature. Data analytics enhances decision-making by combining customer feedback with operational data, enabling companies to make informed decisions about service enhancements and

innovation strategies, resulting in more responsive and customer-orientated services (Akter et al., 2023). The analysis indicated that there was a lack of standardisation in the feedback collection process that led to unreliable data. Leaders can guarantee that customer feedback is consistently integrated into strategic planning. This may involve creating processes for the timely collection, analysis, and implementation of feedback (Deepal & Jayamaha, 2023). This contradicts because the analysis indicates that there is a communication gap between operational levels and management often results in valuable feedback being overlooked or inadequately addressed.

### **6.2.2 Leadership Culture**

The analysis from the interview demonstrated that leadership plays a crucial role in creating open channels for customer feedback and ensuring that they are used to benefit both the company and its customers. However, leaders must balance their interests with the organisation's mission and prioritise customer needs over bureaucratic procedures. Leaders should lead by example, actively participating in feedback sessions and demonstrating their commitment to addressing customer concerns. Regular engagement and visible action taken on feedback can significantly influence the organisational culture in a positive way.

The analysis further indicated that leadership plays a critical role in shaping how customer feedback is perceived and used. Leaders need to streamline the feedback process, ensuring that information from the ground reaches higher levels without distortion. A top-down approach where leadership engages directly with customer concerns, such as during shutdown processes, would ensure that customer feedback is factored into decision-making. Additionally, stakeholder engagement should be prioritised, and feedback should be acted upon. Leadership also plays a critical role in establishing a culture that values customer feedback. Leaders can foster a mindset of continuous growth by taking charge of streamlining communication and ensuring that feedback is used constructively. They must take responsibility for system weaknesses and promote a collective effort to use feedback constructively. Leadership is instrumental in shaping an organisational culture that prioritises customer feedback. Leaders are responsible for steering the organisation in the right direction by understanding and valuing customer needs. If leadership does not emphasise the importance of customer satisfaction, the organisation risks

failing to meet customer expectations. Leaders must actively promote customer feedback as a tool for growth and improvement, ensuring it becomes a core part of the organisation's strategy.

Leadership plays a crucial role in driving innovation, with transformational and entrepreneurial leaders creating supportive environments and empowering teams. Effective leaders facilitate networking and can boost innovation capacity through a combination of leadership styles (Lewis et al., 2018). Leadership in public sector organisations fosters innovation through experimentation, role modelling, resource provision, psychological empowerment, and management practices. It promotes risk-taking, tolerance for failure, and psychological empowerment, enhancing intrinsic motivation and shared vision (Miao et al., 2018). Participants said organisational culture significantly influences innovation by creating a conducive environment for creativity and exploration. Positive traits, such as proactivity and risk-taking, encourage innovation. Leaders and democratic decision-making can shape this culture, which supports continuous learning and adaptability (Woszczyzna, 2015). Strong bureaucratic structures and high levels of red tape contribute to organisational cultures that are often resistant to change and innovation (Arundel et al., 2015).

In summary, the following literature supports and confirms the analysis of leadership playing a crucial role in creating open channels for customer feedback and ensuring that they are used to benefit both the company and its customers. Leadership plays a crucial role in driving innovation, with transformational and entrepreneurial leaders creating supportive environments and empowering teams. Effective leaders facilitate networking and can boost innovation capacity through a combination of leadership styles (Lewis et al., 2018). The following contradicts the above stating that strong bureaucratic structures and high levels of red tape contribute to organisational cultures that are often resistant to change and innovation (Arundel et al., 2015).

The following was also confirmed and supported by literature. Leadership does not emphasise the importance of customer satisfaction and the organisation risks failing to meet customer expectations. Leaders and democratic decision-making can shape this culture, which supports continuous learning and adaptability (Woszczyzna, 2015). However, it contradicts the findings that bureaucratic structures can hinder innovation (Arundel et al., 2015).

In conclusion, the alignment between leadership practices and the integration of customer feedback is key to unlocking the full potential of innovation in both public and private sectors.

### **6.2.3 Collaboration**

The analysis of the findings from the interviews highlights a strong consensus on the importance of collaboration in effectively utilising customer feedback to drive service innovation and organisational improvement. Breaking down silos between departments is critical for improving communication, aligning efforts, and ensuring that feedback is acted upon promptly. Cross-departmental collaboration helps optimise limited resources, reduces redundancy, and leads to more comprehensive solutions by integrating diverse perspectives. By standardising and coordinating feedback collection, organisations can address customer concerns more efficiently, leading to faster implementation of service innovations. Collaboration fosters integrated problem-solving, where different teams develop holistic solutions that consider all aspects of the customer experience. This approach drives innovation and improves customer satisfaction by ensuring the organisation handles feedback thoroughly and consistently. Engaging both internal departments and external stakeholders like ICT and Asset Management further enhances the organisation's ability to meet SLAs and deliver value-driven improvements. Collaboration enables a more unified and efficient response to customer needs, resulting in better service delivery and continuous innovation.

In summary, the literature supports the findings as per the below: The literature highlights that collaboration fosters an environment conducive to innovation by integrating the perspectives and skills of various stakeholders, thereby enhancing the relevance, efficiency, and quality of public services (Vickers et al., 2017). Arundel et al. (2015) suggest that collaboration enhances service innovation by leveraging diverse ideas, accessing external knowledge, providing additional resources, promoting shared learning, supporting implementation efforts, and fostering a culture that embraces innovation. Cross-departmental collaboration between ICT and Asset Management will enhance the organisation's ability to deliver its services. Customers and employees can collaborate on problem-solving, leading to innovative solutions and allowing firms to tap into creative ideas and perspectives for new service concepts (Anning-Dorson, 2018). The literature

emphasises that the public sector often operates in silos, limiting collaboration between departments and hindering innovation that requires inter-agency cooperation. The findings emphasised the importance of breaking down silos between departments to enhance the use of the feedback process, ultimately improving the responsiveness to service delivery.

#### **6.2.4 Innovation and Solutions**

The analysis of these findings from the interviews underscores the potential benefits and challenges of adopting private sector best practices, such as a 360-degree feedback process and centralised feedback systems, at the Provincial Water Board. The private sector is generally more streamlined in gathering and acting on customer feedback, often using online platforms, CRM systems, and real-time data analytics to quickly resolve issues and drive service innovation.

However, several interviewees caution that not all private sector practices are directly transferable to the public sector. Feedback mechanisms in the private sector can sometimes prioritise cost-cutting measures over genuine service improvements, and such practices might not align with public sector goals. Additionally, political and organisational dynamics in the public sector often complicate feedback management, making it difficult to replicate the same swift, customer-driven responses found in private companies. Therefore, while adopting structured feedback systems and continuous customer engagement is crucial, the Provincial Water Board must carefully evaluate which practices align with its goals and avoid those that could disadvantage customers or be disrupted by political interference. The focus should be on developing a robust, unbiased system that genuinely integrates customer feedback to improve service delivery without being overly influenced by short-term political pressures.

The public sector emphasises understanding the innovation process, ranging from incremental improvements to transformative innovations. This differs from the private sector, which focuses on outcomes (Arundel et al., 2019). Both the public and private sectors can benefit from each other's feedback practices. Adapting private sector systems into the public sector requires careful consideration to ensure alignment with public sector values and objectives. Continuous customer

feedback is crucial for businesses to adapt to changing needs and develop innovative solutions that resonate with their target audience (Tueanrat et al., 2021).

In summary, the literature confirms and supports the analysis of the implementation of best practices of innovative solution such as the 360 degree feedback system and looking at more streamlined solution of using customer feedback. Continuous customer feedback is crucial for businesses to adapt to changing needs and develop innovative solutions that resonate with their target audience (Tueanrat et al., 2021).The public sector emphasises understanding the innovation process, ranging from incremental improvements to transformative innovations(Arundel et al., 2019).The analysis also noted that private and public sector have different focus such as cost cutting over genuine innovative solutions.Political dynamics comes with complication in the implementation of robust feedback systems that may be swayed by political interference.However the above contradicts with the literature that continuous customer feedback is crucial for businesses to adapt to changing needs and develop innovative solutions that resonate with their target audience (Tueanrat et al., 2021).

### 6.2.5 Strategic Alignment and Planning

The analysis of strategic alignment and planning in the findings as a driver of service innovation at the Provincial Water Board highlights several key insights regarding the role of customer feedback, organisational practices, and decision-making processes.

First, **there needs to be more integration of customer feedback** within the strategic planning process. While mechanisms exist to consider feedback, such as through the ISO management system, there needs to be a more genuine commitment to addressing this feedback in a meaningful way. As a result, strategic planning tends to be reactive, responding to issues as they arise rather than proactively utilising customer insights to shape future strategies and innovations.

Second, various **barriers prevent the effective utilisation of feedback** in strategic planning. Poor communication often leads to misunderstandings, and feedback may be viewed as a personal critique rather than a constructive tool for

improvement. There is also a need for more alignment between the priorities of different departments, which can hinder cohesive decision-making. Time constraints and a lack of structured feedback mechanisms further exacerbate these challenges, resulting in missed opportunities for integrating valuable customer insights into the planning process.

Third, the analysis suggests a significant **need for structured processes** to capture and address feedback. Establishing clear protocols that ensure feedback from all types of customers, both internal and external, is uniformly considered in decision-making and can enhance the organisation's responsiveness. Creating structured feedback loops and engaging with customers consistently can lead to more informed and effective strategic planning.

Fourth, insights from the **private sector illustrate the importance of a customer-centric approach** to planning. Many private companies utilise feedback as a foundation for shaping their services and strategies, maintaining comprehensive records, and developing responsive systems. Provincial Water Board could benefit from adopting similar best practices, such as improved tracking and analysis of customer feedback, to enhance service delivery and innovation.

Fifth, leadership plays a vital role in fostering a culture that values customer feedback within strategic planning (Deepal & Jayamaha, 2023). Leaders are encouraged to engage directly with feedback processes and to set clear expectations for how feedback should inform planning and operations. By prioritising customer needs and demonstrating a commitment to integrating feedback into strategic decision-making, leadership can create an environment conducive to service innovation.

Finally, the **effective integration of customer feedback into strategic planning requires collaboration across departments**. Silos within the organisation can limit the effectiveness of feedback utilisation, leading to disjointed initiatives. Promoting cross-departmental communication and collaboration can help synthesise insights and drive cohesive service innovations that align with customer expectations, ultimately enhancing the organisation's overall performance and service quality.

Strategic alignment and planning are vital for fostering service innovation in the

public sector. A supportive governance model promotes systematic innovation, while strategic management aligns efforts with policy goals and community needs (Arundel et al., 2019). Incorporating customer suggestions and ideas into service strategies can lead to innovative solutions that resonate better with the target audience (Tueanrat et al., 2021).

The literature confirms and supports the analysis on the importance of integration with strategic planning with customer feedback and the need for a structured processes for collecting customer feedback.

### **6.2.6 Summary of the Discussion for RQ1**

Customer feedback can significantly enhance insights and decision-making in service innovation. However, barriers such as silos, fragmentation, and political interference can hinder effective collaboration. Leadership is pivotal in driving innovation by encouraging experimentation, providing resources, role-modelling desired behaviours, and empowering employees through inclusive management practices. In the Provincial Water Board context, leadership can create a culture that values customer feedback and integrates it into service innovation. Leaders can transform feedback into actionable insights by promoting collaboration, openness, and responsiveness, enhancing service delivery, and ensuring the organisation remains adaptable and forward-thinking.

Collaboration among various departments is essential for effectively utilising customer feedback and driving service innovation. However, silos in the sector can hinder inter-agency cooperation and limit innovation potential. Addressing these challenges is crucial for fostering a culture of collaboration within the organisation.

## **6.3 RQ2: How can Technological Advancements Play a Role in Facilitating the Integration of Customer Feedback for Service Innovation?**

The findings of this study present the following insights on the importance of technology integration to facilitate customer feedback for service innovation, which included AI/ML Real-time Analysis, Efficiency and Process Improvement, Digital

tools, Customisation and adaptability, Value co-creation, and Diverse public sector environments.

AI and data analytics are revolutionising service innovation by interpreting customer feedback, identifying trends, and improving decision-making (Akter et al., 2023). These technologies also offer benefits like agile innovation, customer engagement, and complex feedback integration. Technological advancements enable organisations to become more agile, enabling swift adaptation to customer feedback, leading to faster innovation cycles and more effective user experience implementation (Akter et al., 2023).

### **6.3.1 AI/ML Real-time Analysis**

The findings suggested that AI and ML can revolutionise how customer feedback is analysed by offering speed, accuracy, and actionable insights, enabling organisations to address customer concerns more efficiently. These technologies can process large volumes of feedback in real time, identifying patterns, trends, and urgent issues that might otherwise be overlooked through manual processes. For instance, AI tools can automatically categorise feedback based on urgency or topic, allowing organisations to prioritise critical concerns. This can be particularly useful for public sector entities like the Provincial Water Board, where current manual processes result in delays, such as the two-month waiting period for addressing complaints. Using AI-integrated platforms could flag issues immediately for quicker resolution, significantly improving response times. AI can also perform sentiment analysis, providing insights into overall customer satisfaction and detecting emerging problems early (Wankhade et al., 2022). Furthermore, predictive analytics powered by AI can forecast future customer needs based on historical feedback, enabling organisations to proactively improve services before issues escalate. This predictive capacity can be a game-changer in aligning future strategies with customer expectations, especially when it comes to anticipating infrastructure or service demands.

Moreover, AI tools can be embedded within collaborative platforms like MS Teams, ensuring that real-time insights are shared across departments and fostering a more coordinated approach to feedback management. AI-driven systems could even automate responses to common issues, improving customer engagement and freeing up resources for more complex concerns. However, implementing AI requires careful consideration of policies, processes, and data accuracy (Aldoseri et al., 2023).

AI applications can efficiently analyse vast customer feedback data, enabling companies to identify trends, preferences, and pain points, thereby guiding service development and improvement initiatives (Akter et al., 2023). Systems that enable real-time feedback, such as live chat or instant surveys, offer prompt insights that facilitate faster decision-making and allow for swift adjustments (Arundel et al., 2019). Leveraging AI and machine learning tools can greatly improve data quality management by offering advanced methods for efficiently processing and analysing large datasets.

In summary, the analysis confirms and supports the literature. AI and ML can revolutionise how customer feedback is analysed by offering speed, accuracy, and actionable insights, enabling organisations to address customer concerns more efficiently. These technologies can process large volumes of feedback in real time, identifying patterns, trends, and urgent issues that might otherwise be overlooked through manual processes. AI applications can efficiently analyse vast customer feedback data, enabling companies to identify trends, preferences, and pain points, thereby guiding service development and improvement initiatives (Akter et al., 2023). Collaborative platforms such as MS Teams confirm that systems enabling real-time data prompt insights for decision-making.

### **6.3.2 Efficiency and Process Improvement**

The findings revealed that feedback management systems play a crucial role in ensuring that customer feedback is collected, analysed, and acted upon effectively. To maximise their utility in the public sector, these systems need to be seamlessly integrated with existing IT infrastructure, which often includes complex platforms like ERP or CRM systems. For instance, integrating feedback systems with widely used

platforms like SAP or cloud-based solutions could ensure real-time data sharing across departments, facilitating prompt responses to customer concerns. Such integration requires flexibility and scalability, as the public sector often involves large-scale operations with multiple departments needing access to synchronised data.

One key aspect of successful integration is designing feedback management systems that are modular and adaptable. A modular approach allows for flexibility, ensuring compatibility with various components of the existing IT infrastructure. For instance, APIs can be employed to facilitate smooth data transfer between the feedback management system and other platforms like project management tools or CRM systems. Real-time data synchronisation is essential in this context, as it ensures that feedback is consistently available across all teams and departments, allowing for immediate action on critical issues.

Pilot programs are a strategic way to implement feedback management systems, as they allow organisations to identify potential compatibility issues with existing IT systems before scaling up. These pilot projects can help ensure that feedback systems are fully compatible with existing infrastructure, minimising disruptions and allowing for smoother scaling across the organisation. Starting small also allows the IT teams to test and refine system integrations, ensuring that the chosen system provides actionable insights.

Training and support for staff are equally important in the integration process, and ensuring that employees know how to effectively use the feedback management system is critical to its success. Regular updates and technical support can address any issues that arise, ensuring the system remains user-friendly and valuable to all teams. ICT departments should take a leading role in this, ensuring that staff across the organisation are equipped to leverage the system for maximum impact.

Although SAP may not always be the most efficient system for every feedback management need, customisation could make it more suitable for public entities. For instance, customising existing SAP modules or using APIs to connect SAP with more agile feedback systems could enhance overall efficiency. Alternatively, exploring cloud-based solutions with centralised data storage could offer real-time access across departments and help streamline the feedback process.

Feedback systems with high response rates are often facilitated by user-friendly and easily accessible tools that encourage customer participation (Arundel et al., 2019). Feedback systems that integrate seamlessly with CRM, marketing, and project management tools can streamline processes and ensure that feedback is considered in relevant business strategies (Arundel et al., 2019).

In summary, the analysis confirms and supports the literature that feedback systems with high response rates are often facilitated by user-friendly and easily accessible tools that encourage customer participation (Arundel et al., 2019). Integration requires flexibility and scalability, as the public sector often involves large-scale operations with multiple departments needing access to synchronised data. Feedback systems that integrate seamlessly with CRM, marketing, and project management tools can streamline processes and ensure that feedback is considered in relevant business strategies (Arundel et al., 2019). To maximise their utility in the public sector, these systems must be seamlessly integrated with existing IT infrastructure, which often includes complex platforms like ERP or CRM systems. For instance, integrating feedback systems with widely used platforms like SAP or cloud-based solutions could ensure real-time data sharing across departments, facilitating prompt responses to customer concerns. Training and support for staff are equally important in the integration process, and ensuring employees know how to use the feedback management system effectively is critical to its success. The analysis supports the importance of integrated and streamlined feedback systems with the existing IT infrastructure.

### **6.3.3 Digital Tools**

The findings first suggested several technological tools that are highly promising for collecting customer feedback in the public sector, offering scalability, efficiency, and real-time insights. Online survey platforms like SurveyMonkey and Google Forms allow organisations to gather large amounts of feedback quickly and cost-effectively. These tools enable structured data collection, making it easier to analyse customer input across different services. They are especially valuable for public utilities like the Provincial Water Board, where reaching a diverse audience is critical.

Second, feedback management systems, such as Zendesk and Freshdesk, streamline the tracking and management of feedback across multiple channels.

Third, these platforms enable organisations to consolidate feedback from emails, surveys, and social media, ensuring that no input is missed. Additionally, these systems facilitate faster resolution of customer complaints by categorising and prioritising feedback, which can significantly reduce response times and improve service delivery. Social media monitoring tools like Hootsuite and Brandwatch allow organisations to track real-time sentiments expressed online, offering insights into customer opinions and concerns as they arise. These tools are especially useful for public sector organisations that need to be responsive to public sentiment and swiftly address service-related issues raised on platforms like Twitter or Facebook. Social media monitoring can complement other feedback mechanisms by offering unfiltered and spontaneous input, which can sometimes reveal underlying issues not captured through formal surveys.

Fourth, custom mobile apps are also emerging as an accessible and convenient way for customers to provide feedback. These apps can offer features such as real-time tracking of submitted feedback, ensuring transparency, and keeping customers informed. However, accessibility can be a challenge in the public sector, where not all users are tech-savvy. To address this, simpler solutions such as WhatsApp, SMS-based surveys, or voice notes can be employed to reach a broader audience, particularly in regions with low digital literacy.

Furthermore, AI and machine learning can enhance these tools by providing real-time analysis of feedback. These technologies can process large volumes of data, identifying trends, urgent issues, and patterns that manual methods may miss. For example, sentiment analysis offers numerous business benefits, such as customer satisfaction, improved customer service, enhanced brand awareness, and reduced customer attrition rates. However, it also faces challenges like detecting sarcasm and maintaining customer trust through ethical data usage (Nichifor et al., 2023). While the Provincial Water Board may not yet have fully developed systems for AI implementation, exploring tools like SAP could streamline feedback collection and processing.

Public sector entities have sometimes piloted innovative models like real-time feedback calls, as seen with South African Revenue Services, where customers rate services immediately after receiving them. This model could be adapted for public utilities to gather quick, actionable insights that drive service improvement.

Additionally, by incorporating interval-based feedback collection, organisations can maintain a continuous flow of data, supporting long-term strategic decision-making.

Digital tools have transformed how organisations interact, introducing low barriers to entry and user-friendly interfaces that encourage high levels of participation and creativity among users (Bhimani et al., 2019). Businesses can use various tools to collect customer feedback, including surveys, polls, social media monitoring, customer feedback software, live chats, review platforms, email feedback requests, NPS tools, and user testing tools (Arundel et al., 2019). These tools help businesses collect, analyse, and act on customer feedback to improve their services and products. Examples include SurveyMonkey, Google Forms, Typeform, Hootsuite, Medallia, Qualtrics, Intercom, Drift, Yelp, Trustpilot, Mailchimp, Delighted, Promoter.io, and User Testing (Arundel et al., 2019). By monitoring discussions and trends on social media, companies can identify emerging needs or preferences among their target audience. This enables them to innovate services that align with changing market demands (Bhimani et al., 2019). Companies can utilise innovative touchpoints like mobile devices and digital platforms to gather real-time customer feedback, enabling them to understand customer preferences, needs, and pain points, thereby guiding service innovations (Tueanrat et al., 2021).

Overall, the analysis confirms the literature that technological tools like surveys provide insights through customer feedback collection. Businesses can use various tools to collect customer feedback, including surveys, polls, social media monitoring, customer feedback software, live chats, review platforms, email feedback requests, NPS tools, and user testing tools (Arundel et al., 2019). The use of social media provides customer input through sentiment analysis. Digital tools have transformed how organisations interact, introducing low barriers to entry and user-friendly interfaces that encourage high levels of participation and creativity among users (Bhimani et al., 2019). Custom mobile apps are also emerging as an accessible and convenient way for customers to provide feedback. Companies can utilise innovative touchpoints like mobile devices and digital platforms to gather real-time customer feedback, enabling them to understand customer preferences, needs, and pain points, thereby guiding service innovations (Tueanrat et al., 2021). Literature contradicted the following finding that AI and machine learning can enhance these tools by providing real-time analysis of feedback. These technologies can process large volumes of data, identifying trends, urgent issues,

and patterns that manual methods may miss. AI and machine learning faces challenges like detecting sarcasm and maintaining customer trust through ethical data usage (Nichifor et al., 2023).

#### **6.3.4 Value Co-Creation**

The findings emphasised that collaboration reflects a commitment to stakeholder engagement, which is essential for gathering meaningful insights to enhance service delivery. Organisations can build trust and accountability by involving various departments and customers in workshops and regular engagement sessions. These interactions create a shared sense of responsibility for the success of services, ensuring that all parties are invested in achieving better outcomes. Collaborative efforts encourage aligning departmental goals with customer needs, providing an avenue for generating innovative solutions grounded in real feedback.

Despite its potential, genuine co-creation in the public sector can be challenging due to hierarchical structures where decision-making is often centralised and top-down (Merlin-Brogniart et al., 2022). This can stifle the collaborative processes needed to co-create value effectively. Moreover, the goals of individual departments may not always align with customer needs, leading to inconsistencies in how feedback is addressed. Overcoming these barriers requires significant effort in fostering a culture of openness and ensuring that all departments share a unified vision for service improvement.

The co-creation of value allows firms to create customised services based on customer feedback, fostering innovation and rapid adaptation to meet unique customer needs (Anning-Dorson, 2018). The advent of technologies like big data and IoT allows organisations to conduct more intensive co-creation processes with customers, enabling real-time feedback capture during service delivery and incorporating customer insights into innovation efforts (Akter et al., 2023). Value co-creation in service innovation can be achieved using various archetypes, including the Output-Based Archetype, Process-Based Archetype, Experiential Archetype, and Systemic Archetype (Helkkula et al., 2018). Collectively, the archetypes create meaningful experiences for all stakeholders and integrate resources effectively within the service ecosystem. Companies can foster co-creation by involving clients

in the production of new products through platforms that facilitate brainstorming sessions or ideation competitions (Bhimani et al., 2019). Customers are now seen as co-creators of their experiences, with emotional engagement significantly shaping service quality (Tueanrat et al., 2021). Businesses can enhance personalised offerings by encouraging active participation from customers.

The analysis confirms and supports the literature presented by Anning-Dorson (2018) and Akter et al. (2023) emphasises the importance of co-creating value through customer engagement and feedback, which drives innovation and allows firms to rapidly adapt their services to meet unique customer needs. Anning-Dorson (2018) highlights that firms can create customised services by leveraging customer feedback and fostering innovation tailored to specific needs. Akter et al. (2023) extend this by introducing technologies such as big data and IoT, which enable real-time feedback during service delivery, further enhancing the co-creation process and integrating customer insights into innovation efforts. In contrast with the literature from Anning-Dorson (2018), the summary of value creation within the Provincial Water Board focuses on internal organisational dynamics, specifically the alignment and collaboration between departments. While collaboration within the organisation can facilitate value creation, hierarchical structures are identified as barriers to progress in co-creating value. Overcoming these barriers requires cultivating a culture of openness, enabling more effective internal collaboration and driving innovation. Unlike Anning-Dorson (2018) and Akter et al. (2023), who emphasise external customer-driven co-creation, the findings here are rather on overcoming internal organisational challenges that may impede value creation.

The analysis supports the literature but highlights the importance of openness externally, through customer feedback, and internally, through a culture that supports collaboration across hierarchical boundaries.

### **6.3.5 Customisation and Adaptability**

The analysis of the findings indicated that the recognition of the need to customise services demonstrates an understanding of the diverse requirements of different customer segments, which is vital for enhancing customer satisfaction. Tailoring innovations to specific needs ensures that services are relevant and accessible to all users. Additionally, building flexibility into service delivery allows organisations to adapt quickly to changing environments and customer feedback, ensuring that their

services remain responsive and effective. This adaptability is crucial in public sector contexts, where external conditions and customer expectations can shift rapidly (Sienkiewicz-Malyjurek & Szymczak, 2024). Furthermore, the findings stated that achieving true customisation requires a detailed understanding of customer needs, which can be difficult without robust data collection and analysis capabilities. This may pose a challenge if the organisation lacks the tools or expertise to gather comprehensive customer preferences and behaviour data. Additionally, resource constraints can limit the organisation's ability to implement customisations quickly. The public sector often faces budgetary and operational limitations that can slow down the process of adapting services based on feedback, reducing the overall responsiveness and effectiveness of customisation efforts.

Akter et al. (2023) highlight the importance of organisational agility in responding to market changes, emphasising the role of AI in customisation, enabling organisations to better understand customer needs, identify opportunities, and implement tailored solutions. Adaptability helps in optimising resource utilisation and improves service delivery processes, leading to better public governance performance (Sienkiewicz-Malyjurek & Szymczak, 2024).

In summary, Akter et al. (2023) emphasise the importance of agility and the use of AI to better understand customers. In contrast with this literature, the Provincial Water Board argues that while customisation and adaptability are essential for effective service delivery, they face challenges such as budget and resource constraints and the need for tools to collect critical data on customer preferences and behaviours. This indicates that both the analysis contradicts the literature and acknowledges the significance of customisation and adaptability. However, achieving these goals requires a deep understanding of customer segments and awareness of the constraints that hinder customisation and adaptability.

### **6.3.6 Diverse Public Sector Environment**

The analysis of the findings states that the acknowledgement of the specific challenges faced by the public sector, such as political interference, indicates a deep understanding of the complexities that can affect service innovation. Recognising these obstacles is the first step in developing strategies to overcome

them (Mu & Wang, 2022). The Provincial Water Board can focus on improving internal alignment and communication by identifying issues like cultural barriers and fragmentation between departments. This awareness creates a foundation for more cohesive and coordinated efforts to integrate customer feedback into service improvements. Political dynamics in the public sector can create complications for service delivery, especially when leadership changes shift priorities or reallocate resources. This instability can disrupt feedback systems and hinder long-term planning. Public sector organisations often operate under resource constraints, limiting their capacity to invest in advanced technologies or processes that facilitate effective feedback integration. Without sufficient funding, scaling systems or implementing the tools needed to fully leverage customer insights becomes challenging, restricting the organisation's ability to drive meaningful innovation.

Cinar et al. (2024) identify the need for public sector innovations to align with evolving political mandates and public expectations. Additionally, highlights the significance of understanding the political context in shaping public service innovations, emphasising the interconnectedness of governance, public policy, and service delivery.

Overall, the analysis supports the literature that the public sector has diverse environments, political interference brings about complexity (Cinar et al.,2024), and the frequent changes in the leadership can create interruptions to the scaling of the systems. Implementing the tools required to drive meaningful innovation, but strategies can be developed to overcome such challenges.

### **6.3.7 Summary of the Discussion of RQ2**

The successful implementation of AI and ML in the Provincial Water Board requires careful attention to policies, processes, and data accuracy. While these technologies offer powerful solutions, their impact relies on accurate data, system integration, and user engagement. Cybersecurity and data protection are critical, ensuring that customer information is secure. AI could significantly enhance feedback management efficiency, but the lack of policies for AI deployment remains a barrier. Feedback systems must be compatible with public sector IT infrastructure, emphasising modular designs, real-time synchronisation, and APIs for smooth

integration. Staff training and pilot programs are essential for effective use. Digital tools enable responsive, data-driven decisions, but accessibility across all population segments is necessary. Value creation can be achieved through alignment and collaboration, though hierarchical structures may hinder this. Customisation and adaptability are vital for service delivery, but challenges include budget constraints and the need to gather data on customer preferences. The public sector's diverse environments, political complexities, and leadership changes can disrupt innovation, but strategies can mitigate these obstacles.

## **6.4 RQ3: How can Customer Input be Used in Innovative Service Solutions and Improvements?**

The study's findings are presented below on how customer input can be used in innovative service solutions and improvements, including customer input utilisation, idea generation, iterative development, customer engagement, and strategic alignment. Mu and Wang (2022) emphasise the significance of customer input in innovative service solutions, highlighting critical strategies like co-production, training, persuasive strategies, crowdsourcing, incentives, reputation systems, and open government data, which encourage citizen participation and innovation. Customer input enhances service innovation by providing insights into user needs and preferences. Involving customers in co-design, gathering detailed feedback, and engaging them in testing ensures services are user-centred and continuously improved (Joeger, 2013).

### **6.4.1 Customer Input Utilisation**

The findings first revealed that Integrating customer feedback into an organisation's continuous improvement processes is essential for refining service delivery and responding to evolving needs. There is a consensus that organisations must formalise feedback collection methods to ensure consistency and effectiveness. Once collected, feedback should be distributed across departments, ensuring that it reaches the relevant teams for actionable insights. By embedding feedback into regular operations, organisations can address concerns more systematically and

improve service efficiency (Waddington et al., 2019).

Secondly, revealed that different types of customer feedback serve specific purposes. Complaints typically highlight urgent problems that require immediate resolution, while suggestions and surveys offer a broader understanding of customer satisfaction and potential areas for innovation. Surveys help gauge overall sentiment, while suggestions can be a rich source of innovative ideas for service improvements. A balanced approach that incorporates all types of feedback is crucial to developing a comprehensive understanding of customer needs.

Furthermore, the findings suggested that several barriers often hinder the effective utilisation of customer feedback. Poor internal communication prevents feedback from reaching the appropriate teams for action. A lack of management buy-in can result in a culture that undervalues customer insights, reducing the likelihood that feedback will inform strategic decisions. Additionally, cultural issues, such as resistance to change and departmental disconnects, further complicate efforts to incorporate feedback into improvement processes. Overcoming these barriers requires strong leadership, better communication, and a commitment to a customer-centric approach.

Feedback loops enable firms to improve service quality by incorporating direct customer experiences and suggestions into their changes and innovations (Anning-Dorson, 2018). Public organisations can improve service by utilising crowdsourcing ideas, participatory design, hackathons, social innovation initiatives, and civic crowdfunding (Figenschou et al., 2024). These methods encourage public input, foster innovative solutions, and promote local engagement, leading to higher success rates. Customers are key data sources, enabling companies to identify service gaps and opportunities, thereby enhancing service delivery and fostering innovation (Anning-Dorson, 2018).

In summary, Anning-Dorson (2018) and Figenschou et al. (2024) emphasised that feedback loops and public organisations can enhance service quality by incorporating customer experiences and suggestions. Crowdsourcing, participatory design, hackathons, and civic crowdfunding encourage public input, fostering innovation and identifying service gaps. In contradiction with this literature, the Provincial Water Board suggests that the effective utilisation of customer input is a crucial driver of service innovation. Organisations can create a more dynamic

interaction between their teams and their clientele by fostering a collaborative environment where customers are viewed as partners in the innovation process. This approach encourages open communication, enabling businesses to gather valuable insights directly from customers about their preferences, challenges, and expectations.

As a result, service development becomes more closely aligned with actual market needs, ensuring that offerings are relevant and enhance customer satisfaction and loyalty. This partnership improves the quality and effectiveness of services while empowering customers by giving them a voice in the creation process, potentially leading to innovative solutions that may not have been considered otherwise. Ultimately, leveraging customer input in this collaborative manner can significantly enhance an organisation's competitive edge and drive sustainable growth. Despite differences in feedback loops, both perspectives underscore the importance of utilising customer input to drive service innovation.

#### **6.4.2 Idea Generation**

The analysis of the findings stated that customer feedback is a powerful driver of service innovation, as it provides direct insights into service gaps and areas for enhancement. Organisations can gather a wide range of perspectives by leveraging diverse channels such as surveys, complaints, social media interactions, and suggestion boxes. This diversity enriches the pool of ideas, helping teams generate innovative solutions tailored to the specific needs of different customer segments. Furthermore, applying structured methods such as thematic analysis and root cause analysis helps organisations distil common issues from customer feedback. This analytical approach allows teams to identify patterns and recurring themes, which can then be transformed into actionable solutions. Conducting workshops with stakeholders, including customers, employees, and external partners, it is recommended that they brainstorm and co-create plans based on these insights. This collaborative approach promotes innovation and ensures that solutions are aligned with stakeholder needs.

Idea generation is a crucial process in service innovation, involving user understanding, collaborative exploration, and iterative problem-solving, leading to

successful innovation outcomes through co-design and knowledge sharing (Trischler et al., 2019). Idea generation involves local governments involving citizens to share ideas and competencies, increasing motivation and engagement in social innovation initiatives (Figenschou et al., 2024). This process fosters a collaborative environment, bridging competence, power, and identity boundaries. Organisations can use social media platforms to gather customer feedback for service improvement through polls, surveys, and open discussions (Bhimani et al., 2019).

In summary, the analysis of the findings supports the literature by emphasising the importance of generating ideas by utilising diverse feedback sources and distilling common issues through problem-solving techniques to uncover actionable insights (Bhimani et al., 2019; Figenschou et al., 2024; Trischler et al., 2019).

### **6.4.3 Iterative Development**

The analysis of the findings revealed that establishing feedback loops is a critical element of continuous improvement. By regularly reviewing and responding to customer feedback, organisations can refine their services and remain agile in addressing new concerns. Feedback loops integrate customer insights directly into the operational workflow, creating a system where services are continuously evaluated and improved based on real-time input. This iterative process ensures that services evolve in line with customer expectations, leading to sustained satisfaction and loyalty. Secondly, pilot programs are an effective way to test innovations before scaling them across the organisation. Thirdly, these small-scale trials allow teams to evaluate the impact of changes based on customer feedback in a controlled environment. Successful initiatives can then be refined and rolled out more broadly, reducing the risk of failure and ensuring that innovations are well-suited to customer needs. The phased implementation also allows for the gradual adoption of new processes, giving teams time to adjust and optimise.

The iterative development process is crucial for service innovation, fostering dynamic idea generation and refinement through problem-solving framing, collaborative exploration, feedback loops, prototyping, contextual adaptation, and stakeholder empowerment (Trischler et al., 2019). This approach enhances implementation

success, empowers stakeholders, and fosters long-term success. Social media provides a robust channel for establishing feedback loops, allowing organisations to continuously collect insights and adapt their services accordingly (Bhimani et al., 2019). This iterative process supports ongoing service innovation. Each iteration offers teams the chance to assess progress, learn from mistakes, and make adjustments, enabling continual refinement to better align the product with market needs (Sonta-Drączkowska et al., 2024).

The analysis supports the literature on the importance of iterative development (Trischler et al., 2019) and the various robust channels for establishing a feedback loop (Bhimani et al., 2019). However, participants from the Provincial Water Board suggest that while there may be an interactive process, they recognise the significance of a feedback loop system. They emphasise the value of conducting trials on a small scale to allow for necessary refinements before a broader rollout.

#### **6.4.4 Customer Engagement**

The analysis first revealed that transparency is essential in customer engagement, especially regarding changes resulting from feedback. Regular updates through various communication channels such as newsletters, reports, meetings, or digital platforms can foster trust and demonstrate that the organisation values customer input. Clear communication of the actions taken in response to feedback helps build credibility and ensures customers feel heard and appreciated. Secondly, actively involving customers in the feedback process is key to enriching the quality of input. This can be achieved through surveys, feedback forms, and direct engagement during liaison meetings. Customers are more likely to provide detailed and thoughtful feedback when they are consistently engaged. Such involvement improves the quality of feedback and strengthens the relationship between the organisation and its customers, leading to a more collaborative and customer-focused culture.

Customers are key data sources, enabling companies to identify service gaps and opportunities, thereby enhancing service delivery and fostering innovation (Anning-Dorson, 2018). AI-powered service robots enhance customer engagement and satisfaction, allowing businesses to gather dynamic feedback for better service

design and development (Akter et al., 2023). Direct participation in service production and delivery allows firms to understand customer needs and expectations, leading to the development of innovative service offerings (Anning-Dorson, 2018). Higher customer involvement allows firms to enhance flexibility and responsiveness in their service processes, enabling real-time adjustments based on customer inputs for innovative service experiences (Anning-Dorson, 2018). Social media facilitates direct interaction between service providers and customers, allowing for real-time feedback. This can help organisations quickly adapt and innovate services based on customer experiences and suggestions (Helkkula et al., 2018). Involving customers in pilot programs or beta tests for new service concepts allows businesses to gather valuable feedback and identify potential improvements before a full-scale launch (Tueanrat et al., 2021). This engagement enhances the service and fosters a sense of ownership among customers. Digital platforms enhance customer engagement by providing easy access to opinions and preferences, promoting brand interaction and encouraging active contribution of ideas for service improvements (Tueanrat et al., 2021).

In summary, the customer engagement analysis supports the perspectives from the literature, emphasising the use of various communication channels for customer involvement with a special focus on social media and AI-powered robots (Akter et al., 2023; Helkkula et al., 2018). They highlight the importance of actively engaging with customers to enhance flexibility and responsiveness, ultimately fostering a more customer-focused culture.

#### **6.4.5 Alignment and Project Management**

The analysis of the findings revealed that the relationship between alignment, project management, and customer input in driving service innovation reveals several critical insights. First, customer feedback is highlighted as a key driver of service innovation, advocating for a shift from traditional top-down models to a more customer-centric approach where feedback directly informs decision-making. Second, effective alignment between customer needs and project management enables optimised resource allocation, ensuring that efforts are focused on high-value projects that meet customer expectations, thus enhancing efficiency (Sonta-Drączkowska et al., 2024). Third, the importance of setting realistic commitments

based on customer input is emphasised, as it helps manage stakeholder expectations and avoid overpromising. Fourth, incorporating customer feedback into asset management and operational planning fosters a culture of continuous improvement, encouraging innovation that is grounded in real customer experiences. Fifth, the analysis underscores the need for interdepartmental collaboration, noting that organisational silos can hinder the effective use of customer insights. Sixth, communicating changes based on customer feedback is crucial for maintaining engagement and loyalty, as it reinforces the value of customer contributions. Lastly, the findings identify a gap in integrating customer feedback into strategic planning, suggesting that organisations that do so are better equipped to anticipate future trends and meet evolving customer needs.

The growing interest in user-driven innovation in the public sector emphasises the need for project management approaches that effectively incorporate user engagement to address social challenges (Sonta-Drączkowska et al., 2024). Research indicates a gap in understanding effective user engagement in co-innovation projects, highlighting the need for better alignment between user involvement and strategic goals, which remains underexplored in the literature (Cinar et al., 2024).

Overall, the analysis suggests that aligning project management with customer input is not only beneficial but essential for driving service innovation. Organisations that prioritise this alignment are more likely to achieve higher customer satisfaction, improve operational efficiency, and cultivate a culture of continuous improvement. To fully realise these advantages, organisations must actively integrate customer feedback into their project management frameworks and strategic planning while fostering cross-departmental collaboration and maintaining transparent communication with customers. Literature suggests that customer input and engagement are essential for addressing social challenges (Sonta-Drączkowska et al., 2024). However, this focus primarily emphasises external inputs, which differs from the current analysis. This discrepancy highlights a gap in the literature that warrants further exploration. While the findings support some aspects of existing research, they predominantly reflect an external perspective, indicating the need for more in-depth investigation in this area.

### 6.4.6 Summary of the Discussion of RQ3

Customer input can be used in innovative service solutions and improvements by actively integrating feedback into the service development process. Anning-Dorson (2018) and Figenschou et al. (2024) highlight those methods such as crowdsourcing, participatory design, and hackathons help gather customer experiences and suggestions, driving innovation and identifying gaps in service. By treating customers as partners in the innovation process, as seen in the Provincial Water Board's approach, organisations can create open communication channels that provide valuable insights into customer preferences and challenges. This collaborative environment ensures that services align with actual market needs, leading to enhanced customer satisfaction and loyalty.

Furthermore, leveraging feedback loops and conducting small-scale trials allow for iterative development, enabling organisations to refine solutions before broader implementation. This process fosters continuous improvement, optimises operational efficiency, and strengthens a customer-focused culture. Overall, aligning project management and strategic planning with customer input is essential for driving innovation, improving service quality, and maintaining competitiveness.

## 6.5 Chapter Conclusion

This chapter discussed the research findings by analysing the three research questions and comparing them with existing literature. The first research question (RQ1) explored how customer feedback drives service innovation, the second (RQ2) examined how technological advancements can integrate customer feedback to support innovation, and the third (RQ3) investigated how customer input can be used for innovative solutions. The analysis provided the following insights:

**RQ1:** Customer feedback is vital for service innovation, but challenges such as silos and political interference can hinder collaboration. Leadership is key in fostering innovation by promoting experimentation, providing necessary resources, and empowering employees. At Provincial Water Board, creating a culture that values

customer feedback, promoting interdepartmental collaboration, and addressing organisational silos are critical steps. Additionally, transparency, accountability, inclusivity, and strategic alignment are essential for driving service innovation.

**RQ2:** Implementing AI and ML at the Provincial Water Board requires careful consideration of policies, processes, and data accuracy. Cybersecurity and data protection are critical factors, and AI could significantly improve feedback management. Successful integration also depends on aligning with public sector IT infrastructure, staff training, and collaboration. Budget constraints and varying customer preferences must be addressed for effective implementation.

**RQ3:** Customer input can be integrated into service development through methods like crowdsourcing, participatory design, and hackathons, which help drive innovation and identify service gaps. Treating customers as partners fosters open communication, aligns services with market needs, and enhances customer satisfaction. Utilising feedback loops and small-scale trials encourages continuous improvement, operational efficiency, and a customer-centric culture.

The findings inform the development of a framework on how customer feedback drives service innovation in the public sector, which was presented in the concluding chapter.

# CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

## 7.1 Introduction

This chapter presents the study's conclusions and recommendations, addressing the research questions. Each research question's findings are summarised, followed by the conclusions drawn from the findings and relevant literature. It also includes stakeholder suggestions highlighting managerial impacts informed by the findings and the academic contribution. The study's overarching recommendations for future studies, limitations of the theory, and findings are then outlined, culminating in a final summary of the study's conclusions.

Customer feedback is crucial in helping organisations stay aware of evolving patterns and changes in preferences, ensuring that innovations remain relevant and competitive in dynamic markets (Randhawa et al., 2021). For this reason, the study investigated how customer feedback influences service innovation within the public sector. Specifically, the case of the Provincial Water Board was explored to provide insights into how customer input could inform strategies to drive service innovation.

As discussed in Chapter 1, resistance to innovation in the public sector is prevalent (Arundel et al., 2019). This resistance often stems from entrenched practices and negative perceptions of the sector's organisational culture, which is often characterised by slow decision-making processes and rigid hierarchical structures (Vickers et al., 2017). A significant barrier identified in studies examining successful public sector innovations is the reluctance of staff and management to adopt new working methods (Arundel et al., 2015).

While literature acknowledges these negative tendencies towards innovation, it also highlights the numerous benefits that innovation can bring to the public sector. Innovation enhances service quality, boosts efficiency and productivity, reduces costs, and fosters greater collaboration and adaptability (Arundel et al., 2015). Moreover, it encourages continuous improvement, ensuring that public sector organisations remain relevant and effective in meeting societal needs and technological advances.

Despite the challenges associated with driving innovation in the public sector, particularly resistance to change, the potential benefits are substantial. By integrating customer feedback into the innovation process, organisations like the Provincial Water Board can enhance service delivery and foster an environment conducive to continuous improvement and long-term effectiveness.

## **7.2 Research Findings**

This study answered the following overarching questions: "*How can customer feedback influence driving service innovation.*" It also assisted with two sub-questions about *technological advancements and how they can integrate customer feedback to drive service innovation and customer input in providing innovative solutions in the public sector.* The findings are presented below.

### **7.2.1 How Does Customer Feedback Drive Service Innovation**

Customer feedback is a powerful driver of service innovation, enhancing insights and decision-making processes (Wankhade et al., 2022). The literature aligns with this, indicating that feedback plays a pivotal role in co-creation and co-design in the public sector, with the potential to shape service improvements (Trischler et al., 2019). The findings indicate that the Provincial Water Board has successfully used customer complaints to identify and address operational inefficiencies. These feedback loops act as early warning systems, helping the organisation respond quickly to challenges and adapt service delivery. However, the research findings confirm the literature highlights barriers such as silos, fragmentation, and political interference that impede the full potential of feedback in fostering collaboration and innovation (Vickers et al., 2017).

Leadership emerges as a critical enabler in overcoming these barriers. According to Miao et al. (2018), transformational and entrepreneurial leaders promote innovation by encouraging experimentation, role-modelling behaviours, and empowering employees. In the Provincial Water Board context, leaders must demonstrate commitment to customer feedback by actively engaging in feedback sessions and visibly responding to concerns, as reflected in the literature's assertion that

leadership is instrumental in cultivating a culture of openness and responsiveness (Lewis et al., 2018). Leaders can transform feedback into actionable insights by role-modelling these behaviours and aligning leadership practices with customer-centric values, ensuring continuous service improvement (Miao et al., 2018).

Moreover, collaboration across departments is essential for utilising customer feedback effectively, but silos within the organisation can limit this potential (Bento et al., 2020). Arundel et al. (2015) underscore the importance of cross-departmental collaboration in public sector innovation, noting that it fosters shared learning and enhances service quality by integrating diverse perspectives. The study findings show that the Provincial Water Board faces similar challenges with fragmentation between departments, which hinders the organisation's ability to act promptly on feedback. Addressing these silos is crucial for fostering a culture of collaboration that enhances service delivery.

Innovative solutions should focus on transparency, accountability, and inclusivity to ensure customer feedback drives service innovations (van Ooijen et al., 2019) at the Provincial Water Board. The literature emphasises that structured feedback systems are critical for ensuring public sector organisations can incorporate customer insights into strategic planning (Arundel et al., 2019). For the Provincial Water Board, this implies implementing standardised feedback mechanisms and ensuring that all feedback is consistently considered in decision-making processes. Strategic alignment is also vital for ensuring that feedback informs the organisation's long-term goals, with leadership assumes a crucial role in ensuring alignment between customer needs and organisational strategy (Arundel et al., 2019).

In summary, the findings indicate that integrating customer feedback into service innovation is facilitated by strong leadership and cross-departmental collaboration. While customer feedback has the potential to drive meaningful service innovation, overcoming organisational silos and political interference is essential for fully realising this potential. By addressing these challenges and implementing structured processes for integrating feedback, the Provincial Water Board can develop transparent, accountable, and inclusive solutions, ensuring that customer needs guide future innovations.

## **7.2.2 How can Technological Advancements Play a Role in Facilitating the Integration of Customer Feedback for Service Innovation?**

Integrating AI and ML into the Provincial Water Board requires a comprehensive approach that ensures accurate data inputs, robust policies, and a well-coordinated system integration process (Akter et al., 2023). These technologies can significantly enhance customer feedback analysis, offering real-time insights, predictive analytics, and sentiment analysis, enabling more responsive service innovation. However, the absence of policies and structured processes for AI deployment remains a crucial barrier (Arundel et al., 2019). Data protection and cybersecurity are crucial considerations, ensuring customer information is handled securely, particularly in the public sector (Cinar et al., 2024).

Feedback systems should be compatible with the existing IT infrastructure, requiring modular designs, real-time synchronisation, and APIs to ensure smooth data sharing across departments (Arundel et al., 2019). Integrating these systems allows for more efficient decision-making and the streamlining of operations, which is critical in large-scale public sector environments like the Provincial Water Board. Pilot programs and staff training are essential for testing system compatibility and ensuring users can effectively leverage these new tools (Arundel et al., 2019).

Digital tools such as online surveys, customer feedback software, and social media monitoring are valuable for collecting and analysing feedback (Akter et al., 2023). However, accessibility across all population segments, particularly in regions with varying levels of digital literacy, must be ensured. Simple solutions, such as SMS-based surveys, can help broaden the reach and inclusivity of feedback systems (Anning-Dorson, 2018).

Value creation through customer feedback is another critical element. It requires alignment and collaboration across departments to ensure that feedback is integrated into service delivery improvements (Anning-Dorson, 2018). However, hierarchical structures and political dynamics can hinder these efforts, leading to fragmented decision-making and slowing innovation (Cinar et al., 2024). Addressing these difficulties requires fostering a culture of openness and collaboration, ensuring

that feedback systems are adopted and fully utilised to drive meaningful service improvements (Akter et al., 2023).

Customisation and adaptability are also essential in ensuring services remain relevant and responsive to changing customer needs (Akter et al., 2023). While these goals are recognised within the Provincial Water Board, findings indicate that budget constraints and the need for robust data collection tools hinder progress. Public sector organisations, particularly in environments subject to political interference and frequent leadership changes, often face additional obstacles in implementing the necessary technological advancements and scaling feedback systems (Cinar et al., 2024). However, by developing long-term strategies to overcome these barriers, organisations can ensure that service innovations continue to evolve and meet customer needs effectively.

In conclusion, the literature and findings indicate that integrating AI, ML, and digital tools holds great potential for enhancing service innovation at the Provincial Water Board. However, addressing barriers such as policy gaps, resource limitations, and organisational fragmentation is crucial to fully harnessing these technologies' power. By promoting a culture of collaboration and ensuring accessibility for all stakeholders, the organisation can develop a more flexible and responsive strategy for delivering services (Akter et al., 2023; Arundel et al., 2019; Cinar et al., 2024).

### **7.2.3 How can Customer Input be Used in Innovative Service Solutions and Improvements?**

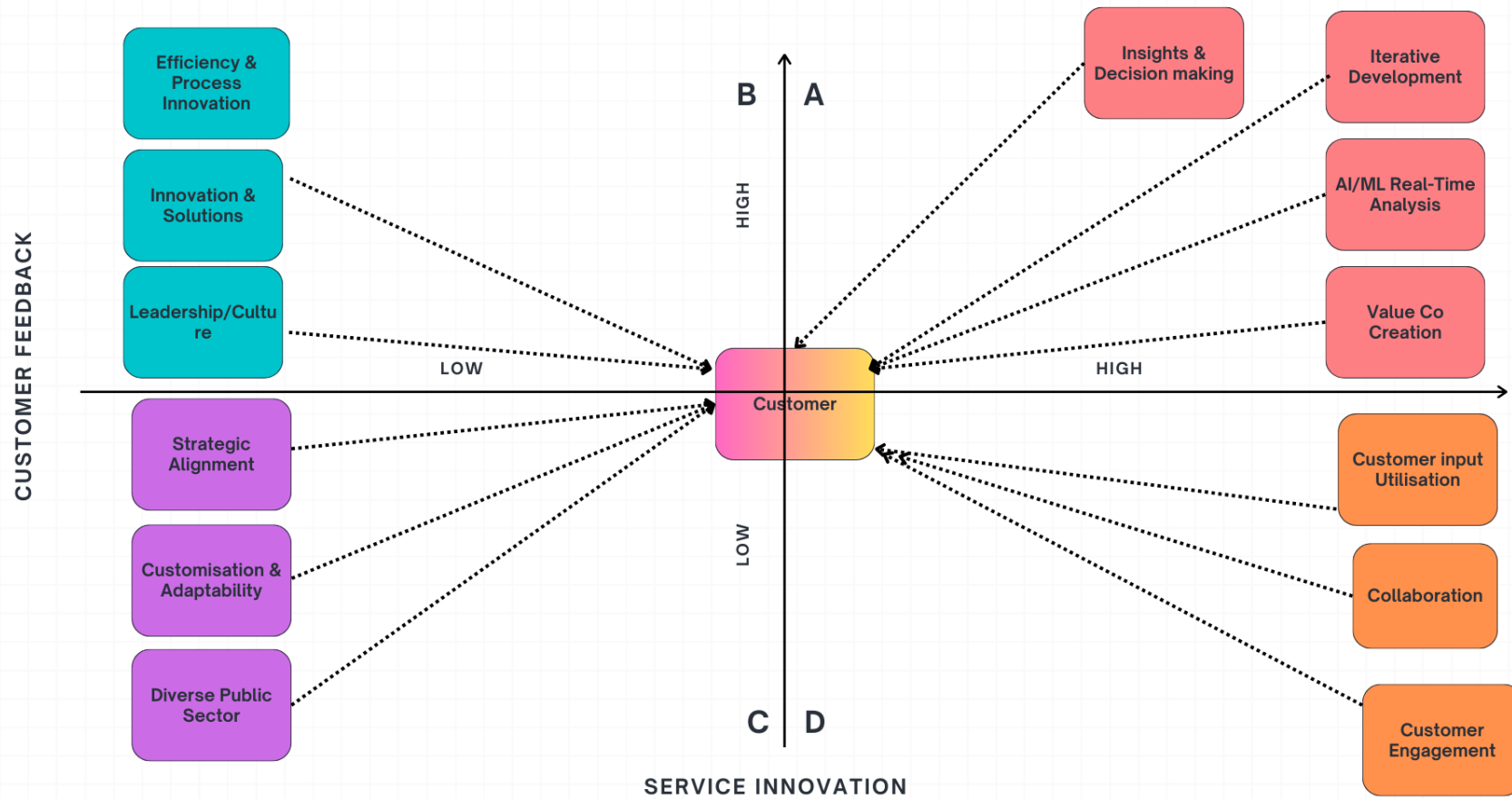
Customer input plays a pivotal role in driving innovative service solutions and improvements. Research by Anning-Dorson (2018) and Figenschou et al. (2024) emphasises that crowdsourcing, participatory design, and hackathons enable organisations to gather customer experiences and suggestions, fostering innovation and identifying gaps in service delivery. By treating customers as partners in the innovation process, as seen in the findings of the approach of the Provincial Water Board (Tan, 2023), organisations can open communication channels that provide valuable insights into customer preferences, challenges, and expectations. This partnership ensures that services are more closely aligned with market needs, enhancing customer satisfaction and loyalty.

Furthermore, leveraging feedback loops and conducting small-scale trials allows organisations to engage in iterative development (Pett, 2020). This process facilitates continuous refinement of solutions based on real-time customer input before broader implementation. As noted by Mu and Wang (2022), strategies such as co-production, crowdsourcing, and incentives help engage customers in a way that not only drives innovation but also improves operational efficiency. Iterative development and customer input also promote a culture of continuous improvement, optimising service quality and customer-centric innovation.

Overall, aligning project management and strategic planning with customer input is crucial for maintaining competitiveness (Sonta-Drączkowska et al., 2024). By actively incorporating feedback into these processes, organisations can improve service offerings, drive innovation, and sustain a customer-focused culture prioritising responsiveness and engagement.

### **7.3 Conceptual Framework**

The research findings highlighted essential lessons on how customer feedback can drive service innovation, creating a customer-driven service innovation framework. The framework outlines how customer feedback and service innovation interact to achieve customer satisfaction, which is the ultimate goal at the heart of the framework. Each quadrant was explained in terms of its impact, criteria, and potential for customer satisfaction (Figure 7.1).



**Figure 7.1: Conceptual Framework for Customer-Driven Service Innovation**

Source: Author's own

### **7.3.1 Quadrant A: High Customer Feedback and High Service Innovation**

This quadrant identifies critical factors that ensure high customer feedback and high service innovation is achieved. It emphasises the importance of insight and decision-making, where organisations gather valuable customer input to make informed decisions. Service innovation is driven by a shared understanding between the organisation and its customers, resulting in value co-creation (Melewar, 2021). Advanced technological systems, such as AI/ML for real-time data analysis, enable continuous feedback loops and support iterative development. These elements combine to ensure service innovation aligns closely with customer needs, leading to high customer satisfaction. Customer satisfaction is highly likely in this quadrant, as feedback directly influences and shapes innovative solutions.

### **7.3.2 Quadrant B: High Customer Feedback and Low Service Innovation**

In this quadrant, customer input utilisation, engagement, and collaboration are substantial, leading to high levels of feedback. However, service innovation remains high if this feedback is converted into actionable insights or supported by the appropriate structures and processes. With innovation, there is a risk that customer feedback is fully leveraged to improve services. As a result, customer satisfaction may be limited or even frustrated, as the feedback does not lead to noticeable improvements in service offerings. This quadrant illustrates the importance of aligning feedback with concrete actions to achieve innovation and customer satisfaction.

### **7.3.3 Quadrant C: Low Customer Feedback and Low Service Innovation**

This quadrant focuses on strategic alignment and planning, customisation and adaptability, and the diverse public sector environment, which are critical to understanding the context but do not, on their own, drive service innovation. With

low feedback and innovation, customer satisfaction is at risk, as the organisation may need help to meet customer needs effectively. While efforts in strategic planning and understanding diversity are significant, they are only foundational steps that need to be followed by innovation. These next steps are necessary for the public sector to avoid stagnation, and customer satisfaction will likely be achieved in this quadrant.

### **7.3.4 Quadrant D: Low Customer Feedback and High Service**

#### **Innovation**

This quadrant demonstrates that even with low customer feedback, high service innovation can still occur, driven by leadership and organisational culture, innovative solutions, and efficiency and process improvement. Strong leadership fosters a culture of internal collaboration, allowing innovation to occur despite limited customer input. While customer feedback is not the starting point, the focus on improving processes and creating innovative solutions can still enrich the customer journey. However, the lack of customer feedback means that the innovations might only partially align with customer expectations, potentially limiting customer satisfaction. Continuous improvement and eventual customer input integration would be needed to refine these innovations for better alignment with customer needs.

### **7.3.5 Summary**

Each quadrant reflects different approaches to integrating customer feedback and service innovation, with customer satisfaction as the ultimate measure of success. *Quadrant A* is the ideal scenario, where feedback drives innovation and leads to high satisfaction. *Quadrant B* highlights the risks of not translating feedback into actionable innovation. *Quadrant C* shows the foundational need for alignment and planning before innovation can occur. *Quadrant D* illustrates how strong leadership and internal innovation can improve services, even with low feedback. Achieving customer satisfaction requires effective feedback mechanisms and robust service innovation strategies.

## 7.4 Academic Contribution

The research study extends the body of knowledge on the phenomenon of customer feedback and service innovation. The conceptual framework presented in Figure 7.1 recommends an updated perspective on the influence of customer feedback in driving service innovation in the public sector (Caemmerer, 2006). The academic contribution was discussed in this section.

This study has extended the knowledge of aligning project innovation and strategy. Research indicates a gap in understanding effective user engagement in co-innovation projects, highlighting the need for better alignment between user involvement and strategic goals, which remains underexplored in the literature (Sonta-Drączkowska et al., 2024). There is a heightened interest in project management approaches, and projects must be aligned with customer input to drive service innovation (Sonta-Drączkowska et al., 2024).

The public sector often operates in rural areas where network infrastructure poses significant connectivity challenges. Obtaining information from various sites can sometimes be difficult. Research highlights the importance of technology integration, with SMS-based anonymous feedback systems empowering citizens to voice concerns without fear, thereby enhancing accountability and responsiveness in public services (Waddington et al., 2019). Additionally, the literature suggests that customer feedback drives service innovation in the public sector by fostering co-design involvement, understanding user needs, creating value, promoting collaboration, meeting implementation requirements, and addressing vulnerable groups (Trischler et al., 2019). This underscores the critical importance of gathering feedback and ensuring the inclusion of vulnerable groups facing technological barriers. It speaks to the need for adaptability in the diverse contexts where the public sector operates.

Standardised customer feedback knowledge not only assists in credible data collection and consistent reporting but also requires collaboration and leadership commitment for the customer feedback to see the impact and scale the initiative. The literature below confirms that data analytics enhances decision-making by combining customer feedback with operational data, enabling companies to make informed

decisions about service enhancements and innovation strategies, resulting in more responsive and customer-orientated services (Akter et al., 2023).

## **7.5 Implications and Recommendations for Business**

The study provided significant insights into how customer feedback can drive service innovation. These findings were drawn from online interviews and were incorporated into a proposed Customer-Driven Service Innovation Framework. This framework can assess where the Provincial Water Board currently stands regarding service innovation and customer feedback and what steps need to be taken to achieve a state of high service innovation and customer feedback. Ultimately, this will increase customer satisfaction for both external and internal customers.

Currently, the Provincial Water Board is between *Quadrants B and C* of the framework, with considerable customer engagement, but feedback must be consistently structured and actionable. The organisation gathers external customer feedback through customer liaison meetings and receives internal customer feedback, though it may need to be fully tracked or utilised for actionable insights. As a result, service innovation remains low, with customers receiving standard services but not benefiting from innovations that could improve service impact. Moving the Provincial Water Board to *Quadrant A*, where service innovation and customer feedback are high, will require addressing several key areas.

### **7.5.1 Enhancing Customer Feedback Systems**

Findings indicate that Feedback from both external and internal customers at the Provincial Water Board is being collected, but it lacks structure and actionability. The organisation needs to implement a well-structured feedback system that captures, tracks and utilises customer insights to drive service innovation. By employing cutting-edge technologies like AI and machine learning for real-time feedback collection and analysis, the Provincial Water Board can transform raw feedback into actionable insights, enabling data-driven decisions that enhance service delivery.

This can be achieved by developing standard operating procedures (SOPs) and clear communication guidelines for all employees. Additionally, training staff on the

importance of customer feedback and its value to the business will ensure that everyone understands its critical role. Implementing SLAs across departments will also foster greater collaboration and accountability in responding to customer needs.

#### **7.5.1.1 Implication**

Implementing a robust customer feedback system will allow Provincial Water Board to align services with customer expectations, improving service quality and customer satisfaction. The shift from unstructured feedback to structured data will help the organisation track performance and measure the impact of its innovations.

### **7.5.2 Driving Value through Service Innovation**

Value through service innovation can be driven by establishing shared KPIs aligned with individual performance contracts, ensuring that the customer feedback process is strategically integrated into the business. A robust quality assurance function is needed to evaluate the system's functionality and effectiveness regularly. Performance dashboards and regular leadership reviews should be implemented for each division to assess progress and highlight growth opportunities.

A central customer feedback system should be developed, using tools like SAP or an existing hotline as a centralised platform. Collaborative systems such as MS Teams, social media, and SMS can be used to track and store feedback, ensuring accessibility for diverse customers, including those not digitally connected. SMS systems, in particular, provide a valuable alternative for reaching customers who may lack access to online platforms.

#### **7.5.2.1 Implication**

Adopting an iterative innovation process will help the Provincial Water Board stay responsive to changing customer needs. This will improve service delivery and strengthen relationships with public and private sector customers, enhancing the company's competitive edge.

### **7.5.3 Strategic Alignment and Customer-Centric Culture**

The Provincial Water Board must focus on strategic alignment to transition from Quadrant B to Quadrant A. The organisation should ensure customer feedback directly influences short-term operational decisions and long-term strategic planning. Building a customer-centric culture, where customer needs are prioritised and feedback is actively valued, will drive innovation, and improve service. Leadership is crucial in cultivating a culture of collaboration and empowerment, ensuring that teams align with the overarching goal of customer satisfaction.

This can be achieved by aligning with strategic objectives focused on creating customer value and appointing an executive sponsor to standardise the customer feedback process while maintaining accountability across leadership and staff. Leadership must consistently communicate updates on processes and customer feedback, and a multidisciplinary steering committee should be established to support these initiatives and drive continuous improvement.

#### **7.5.3.1 Implication**

Strategic alignment will guarantee that customer feedback is gathered and used effectively to guide business priorities. This will lead to better resource allocation, more targeted innovations, and ultimately higher customer satisfaction.

### **7.5.4 Summary**

As a result of this study, For the Provincial Water Board, moving towards a high level of service innovation and customer feedback (*Quadrant A*) will require focused efforts in enhancing feedback systems, driving value through continuous innovation, aligning strategies with customer needs, and empowering leadership to foster a customer-centric culture. Integrating advanced feedback technologies such as AI/ML and a strategic approach to innovation will allow the organisation to create value and

achieve customer satisfaction as the ultimate goal. By doing so, the Provincial Water Board was well-positioned to serve both public and private sector customers, ensuring long-term success in an increasingly competitive environment.

## **7.6 Limitations of the Study**

Based on the findings, the following limitations were noted:

*Data Collection Method:* The study primarily employed cross-sectional data, which limited its capacity to observe changes over time and the longitudinal impact of customer involvement on firm performance.

*Generalisability:* The research relied exclusively on data from a provincial water board within the public sector, which restricts the generalisability of the findings to other provinces and public sector entities.

*Industry Specificity:* The study focused solely on the public sector in the provincial water board and did not examine the effects of specific industries on the model (Anning-Dorson, 2018). Considering service sectors' nuances and life-cycle stages could yield valuable insights.

## **7.7 Suggestions for Future Research**

Based on the findings, the following areas should be considered for future research:

*Comparative Studies Across Sectors:* Research comparing innovation processes in the public and private sectors is necessary to understand the varying impacts of different institutional logic through customer satisfaction surveys, market share comparison and innovation indexing. In particular, studies should investigate service sectors using standardised customer feedback tools for cross-sector comparisons.

*International Comparisons:* International comparative research can provide insights into how different political and environmental contexts affect social enterprises and innovation outcomes through benchmarking/policy analysis or historical trends. This

approach could uncover critical factors that drive or hinder innovation across various regions.

*Longitudinal Approaches:* Adopting longitudinal methods is crucial for exploring the dynamics of public service and service innovation over time, particularly in unstable policy environments. These studies should track long-term outcomes of public sector innovations, extending beyond three to five years.

*Strategic Management of Innovation:* Future research should examine the existence and effectiveness of strategic management policies within public sector organisations, linking these strategies to innovation outcomes. Understanding how these policies drive or hinder innovation could inform better management practices.

*Role of Technology:* Research should explore how technological advancements can improve innovation processes within the public sector, particularly regarding knowledge-sharing and collaboration. Technology is critical in fostering innovation and streamlining processes in an increasingly digital world.

*Measurement of Innovation Outcomes:* It is necessary to establish reliable metrics for assessing the novelty and impact of innovations within public sector agencies. These metrics would standardise the evaluation process and facilitate comparisons across different approaches to innovation.

## 7.8 Study Conclusion

The research offered valuable insights into how customer feedback can effectively drive service innovation, particularly in the public sector. Through semi-structured interviews with employees of the Provincial Water Board, the study gathered firsthand perspectives on the role of customer input in shaping service offerings and improving operational outcomes. These insights were critically analysed and compared with existing literature, allowing for a comprehensive understanding of how customer feedback aligns with established theories of service innovation.

One of the critical outcomes of this study was the development of a **Customer-Driven Service Innovation Framework**. This framework consolidates the varied findings into a structured model, providing a clear roadmap for integrating customer

feedback into innovation processes. It highlights the importance of gathering customer insights and translating them into actionable strategies to enhance service delivery and customer satisfaction. By situating the Provincial Water Board within the framework, the study demonstrated the organisation's current strengths and areas for improvement, particularly in making feedback actionable to boost service innovation.

This framework is particularly relevant for public sector organisations looking to modernise and innovate their services in response to evolving customer preferences. In the public sector, where service delivery often faces unique constraints, adapting and innovating based on customer needs is increasingly essential. The framework provides a structured approach for organisations to assess their current practices, identify gaps in customer engagement, and implement processes that drive innovation from customer feedback.

Moreover, the research emphasises the broader implications of adopting such a framework beyond the Provincial Water Board. It presents an adaptable model for public sector entities that foster innovation through customer-centric approaches, ensuring that their services remain responsive and aligned with the communities' expectations.

In conclusion, this study enhances the academic knowledge of the intersection between customer feedback and service innovation. It provides a practical tool for public sector organisations to enhance service delivery and achieve long-term customer satisfaction. This section integrates the results from the semi-structured interviews and aligns them with the broader academic discourse. By comparing and contrasting the findings with current research, the discussion enhances the growing body of knowledge on customer feedback and service innovation, offering fresh insights that could guide theory and application in the business.

## REFERENCES

- Akter, S., Hossain, M. A., Sajib, S., Sultana, S., Rahman, M., Vrontis, D., & McCarthy, G. (2023). A framework for AI-powered service innovation capability: Review and agenda for future research. *Technovation*, 125, 102768. <https://doi.org/10.1016/j.technovation.2023.102768>
- Aldoseri, A., Al-Khalifa, K. N., & Hamouda, A. M. (2023). Re-thinking data strategy and integration for artificial intelligence: concepts, opportunities, and challenges. *Applied Sciences*, 13(12), 7082. <https://doi.org/10.3390/app13127082>
- Anning-Dorson, T. (2018). Customer Involvement capability and service firm performance: The mediating role of innovation. *Journal of Business Research*, 86, 269–280. <https://doi.org/10.1016/j.ibusres.2017.07.015>
- Arundel, A., Bloch, C., & Ferguson, B. (2019). Advancing innovation in the public sector: Aligning innovation measurement with policy goals. *Research Policy*, 48(3), 789–798. <https://doi.org/10.1016/j.respol.2018.12.001>
- Arundel, A., Casali, L., & Hollanders, H. (2015). How European public sector agencies innovate: The use of bottom-up, policy-dependent and knowledge-scanning innovation methods. *Research Policy*, 44(7), 1271–1282. <https://doi.org/10.1016/j.respol.2015.04.007>
- Bhimani, H., Mention, A. L., & Barlatier, P. J. (2019). Social Media and Innovation: A systematic literature review and future research direction. *Technological Forecasting & Social Change*, 114, 251–269. <https://doi.org/10.1016/j.techfore.2018.10.007>
- Bradonjic, P., Franke, N., & Luthje, C. (2019). Decision-makers underestimation of user innovation. *Research Policy*, 48(6), 1354–1361. <https://doi.org/10.1016/j.respol.2019.01.020>

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. In *Qualitative Research in Psychology* (Vol. 3). Sage Publications.  
<http://dx.doi.org/10.1191/1478088706qp063oa>
- Caemmerer, B. (2006). *The management of customer feedback in development of service orientation in the public sector*. Doctoral thesis from the University of Strathclyde. <https://doi.org/10.48730/wwwx-1457>
- Cinar, E., Demircioglu, M. A., Acik, A. C., & Simms, C. (2024, March). Public sector innovation in a city-state: exploring innovation types and national context in Singapore. *Research Policy*, 53(2), 104915.  
<https://doi.org/10.1016/j.respol.2023.104915>
- Clausen, T. H., Demircioglu, M. A., & Alsos, G. A. (2019). Intensity of innovation in public sector organizations: The role of push and pull factors. *Public Administration*, 98(1), 159–176. <https://doi.org/10.1111/padm.12617>
- Damrich, S., Kealey, T., & Ricketts, M. (2022). Crowding in and crowding out within a contribution good model of research. *Research Policy*, 51(1), 104400.  
<https://doi.org/10.1016/j.respol.2021.104400>
- Deepal, A.G., & Jayamaha, A. (2023). Audit Expectation Gap: A Comparative Literature Analysis of Private Sector and Public Sector. *Wayamba Journal of Management*, 14(1), 67–89. <https://doi.org/10.4038/wjm.v14i1.7596>
- Degbey, W., Pelto, E., Oberg, C., & Carmeli, A. (2023). Customers driving a firm's responsible innovation response for grand challenges: A co-active issue-selling perspective. *Journal of Product Innovation Management*, 41(2), 379–402. <https://doi.org/10.1111/jpim.12705>
- Demircioglu, M. A., & Audretsch, D. B. (2017). Conditions for innovations in public sector organizations. *Research Policy*, 46(9), 1681–1691.  
<https://doi.org/10.1016/j.respol.2017.08.004>
- Dereli, D. (2015). Innovation Management in Global Competition & Competitive Advantage. *Procedia-Social & Behavioural Science*, 195, 1365-1370. <https://www.sciencedirect.com/science/article/pii/S1877042815038021>

- Eckert, T., & Husig, S. (2022). Innovation portfolio management: a systematic review and research agenda in regards to digital service innovations. *Management Review Quarterly*, 72, 187-230. <https://link.springer.com/article/10.1007/s11301-020-00208-3>
- Felicio, T., Samagaio, A., & Rodrigues, R. (2021). Adoption of management control systems and performance in public sector organizations. *Journal of Business Research*, 124, 593–602. <https://doi.org/10.1016/j.jbusres.2020.10.069>
- Figenschou, T., Li-Ying, J., Tanner, A., & Bogers, M. (2024). Open innovation in the public sector: A literature review on actors and boundaries. *Technovation*, 131, 102940. <https://doi.org/10.1016/j.technovation.2023.102940>
- Gault, F. (2018). Defining & Measuring innovation in all sector of the economy. *Research Policy*, 47, 617-622. <https://www.sciencedirect.com/science/article/pii/S0048733318300076>
- Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report*, 8(4), 597–607. <https://www.researchgate.net/profile/Evens-Emmanuel/post/With-respect-to-your-cognition-which-is-more-important-and-needful-qualitative-research-or-quantitative-research-And-why/attachment/5ea8a2394f9a520001e305df/AS%3A885411169710088%401588109881686/download/golafshani.pdf>
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough: An experiment with data saturation and variability. *Field Methods*, 18(1), 59–82. <https://doi.org/10.1177/1525822X05279903>
- Gustafsson, A., Snyder, H., & Witell, L. (2020). Service Innovation: A New Conceptualization and Path Forward. *Journal of Service Research*, 23(2), 111–115. <https://doi.org/10.1177/1094670520908929>
- Helkkula, A., Kowalkowski, C., & Tronvoll, B. (2018). Archetypes of Service Innovation: Implications for Value Co-Creation. *Journal of Service Research*, 21(3), 284–301. <https://doi.org/10.1177/1094670517746776>

- Jaakkola, E., Kaartemo, V., Siltaloppi, J., & Vargo, S. (2024). Advancing service-dominant logic with systems thinking. *Journal of Business Research*, 177, 114592. <https://doi.org/10.1016/j.jbusres.2024.114592>
- Jaureguy, M. V., Branchi, C., & Blanchard, P. (2023). Financial and Knowledge Barriers to innovation: complementary and substitution effects on innovative efforts. *Research Policy*, 52(7), 104814. <https://doi.org/10.1016/j.respol.2023.104814>
- Joeger, B. (2013). User involvement in public services innovation. In Osborne, S. P., & Brown, L. (Eds.). *Handbook of Innovation in Public Services* (pp. 432–444). Edward Elgar Publishing.
- Johnson, J. L., Adkin, D., & Chauvin, S. (2020). Qualitative Research in Pharmacy Education: A Review of the Quality Indicators of Rigor in Qualitative Research. *American Journal of Pharmaceutical Education*, 84(1), 138–146. <https://doi.org/10.5688/ajpe7120>
- Kumar, R. (2018). *Research Methodology: A Step-By-Step Guide for Beginners*. Sage Publications.
- Lewis, J. M., Ricard, L. M., & Klijn, E. H. (2018). How innovation drivers, networking and leadership shape public sector innovation capacity. *International Review of Administrative Science*, 84(2), 288–307. <https://doi.org/10.1177/0020852317694085>
- Makgopa, S. S. (2021). Drivers of innovation in service organizations. *Academic Journal of Interdisciplinary Studies*, 10(2), 45. <https://doi.org/10.36941/ajis-2021-0037>
- Mariani, M., Machado, I., & Nambisan, S. (2023). Types of innovation and artificial intelligence: A systematic qualitative literature review and research agenda. *Journal of Business Research*, 155, 113364. <https://doi.org/10.1016/j.jbusres.2022.113364>
- Melewar, T. C. (Ed.). (2021). *Building Corporate Identity, Image and Reputation in the Digital Era*. Routledge.

- Merlin-Brogniart, C., Fuglsang, L., Magnussen, S., Peralta, A., Revesz, E., Ronning, R., Rubalcaba, L., & Scupola, A. (2022). Social innovation and public service: A literature review of multi-actor collaborative approaches in five European countries. *Technological Forecasting & Social Change*, 182, 121826. <https://doi.org/10.1016/j.techfore.2022.121826>
- Miao, Q., Newman, A., Schwarz, G., & Cooper, B. (2018). How Leadership and Public Service Motivation Enhance Innovation Behaviour. *Public Administrative Review*, 78(1), 71–81. <https://doi.org/10.1111/puar.12839>
- Miles, C. (2023). S-D Logic as Persuasive Discourse. In: *The Marketing of Service-Dominant Logic*. Palgrave Macmillan. [https://doi.org/10.1007/978-3-031-46510-9\\_1](https://doi.org/10.1007/978-3-031-46510-9_1)
- Mu, R., & Wang, H. (2022). A systematic literature review of open innovation in the public sector: comparing barriers and governance strategies of digital and non-digital open innovation. *Public Management Review*, 24(4), 489–511. <https://doi.org/10.1080/14719037.2020.1838787>
- Nichifor, E., Bratucu, G., Chitu, I. B., Lupsa-Tataru, D. A., Chisinau, E. M., Todor, R. D., Albu, R. G., & Balasescu, S. (2023). Utilizing Artificial Intelligence to Turn Reviews into Business Enhancements through Sentiment Analysis. *Electronics*, 12(21), 4538. <https://doi.org/10.3390/electronics12214538>
- OECD/Eurostat. (2018). *Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation* (4th ed.). OECD Publishing. <https://doi.org/10.1787/9789264304604-en>
- Osborne, S. P. (2018). From public service-dominant logic to public service logic: are public service organizations capable of co-production and value co-creation? *Public Management Review*, 20(2), 225–231. <https://doi.org/10.1080/14719037.2017.1350461>
- Parrili, M., Balavac, M., & Radicic, D. (2020). Business innovation modes and their impact on innovation outputs: Regional variations and nature of innovation across EU regions. *Research Policy*, 49(8), 104047. <https://doi.org/10.1016/j.respol.2020.104047>

- Patton, M. Q. (2002). *Qualitative research and evaluation methods*. SAGE Publications.
- Randhawa, K., Wilden, R., & Gudergan, S. (2021). How to innovate toward an ambidextrous business model? The role of dynamic capabilities and market orientation. *Journal of Business Research*, *130*, 618–634. <https://doi.org/10.1016/j.jbusres.2020.05.046>
- Rayna, T., & West, J. (2023). Where digital meets physical innovation: Reverse salients and the unrealized dreams of 3D printing. *Journal of Product Innovation Management*, *40*(4), 530–553. <https://doi.org/10.1111/jpim.12681>
- Reichheld, F. F. (2003). The One Number You Need to Grow. *Harvard Business Review*, *81*(12), 46–55. <https://www.nashc.net/wp-content/uploads/2014/10/the-one-number-you-need-to-know.pdf>
- Saldana, J. (2016). *The Coding Manual for Qualitative Researchers* (3rd ed.). Sage Publications.
- Saunders, M., & Lewis, P. (2018). *Doing Research in Business and Management*. Pearson Education.
- Sienkiewicz-Malyjurek, K., & Szymczak, M. (2024). Understanding public service supply chain management: a systematic literature review. *Management Review Quarterly*, *74*(3), 1879–1943. <https://doi.org/10.1007/s11301-023-00350-8>
- Siering, M., Deokar, A. V., & Janze, C. (2018). Disentangling consumer recommendation: Explaining and predicting airline recommendations based on online reviews. *Decision Support Systems*, *107*, 52–63. <https://doi.org/10.1016/j.dss.2018.01.002>
- Snyder, H., Witell, L., Fombelle, P., & Kristensson, P. (2016). Identifying categories of service innovation: A review and synthesis of literature. *Journal of Business Research*, *69*(7), 2401-2408. <https://doi.org/10.1016/j.jbusres.2016.01.009>
- Sonta-Drączkowska, E., Cichosz, M., Klimas, P., & Pilewicz, T. (2024). Co-creating innovations with users: A systematic literature review and future research

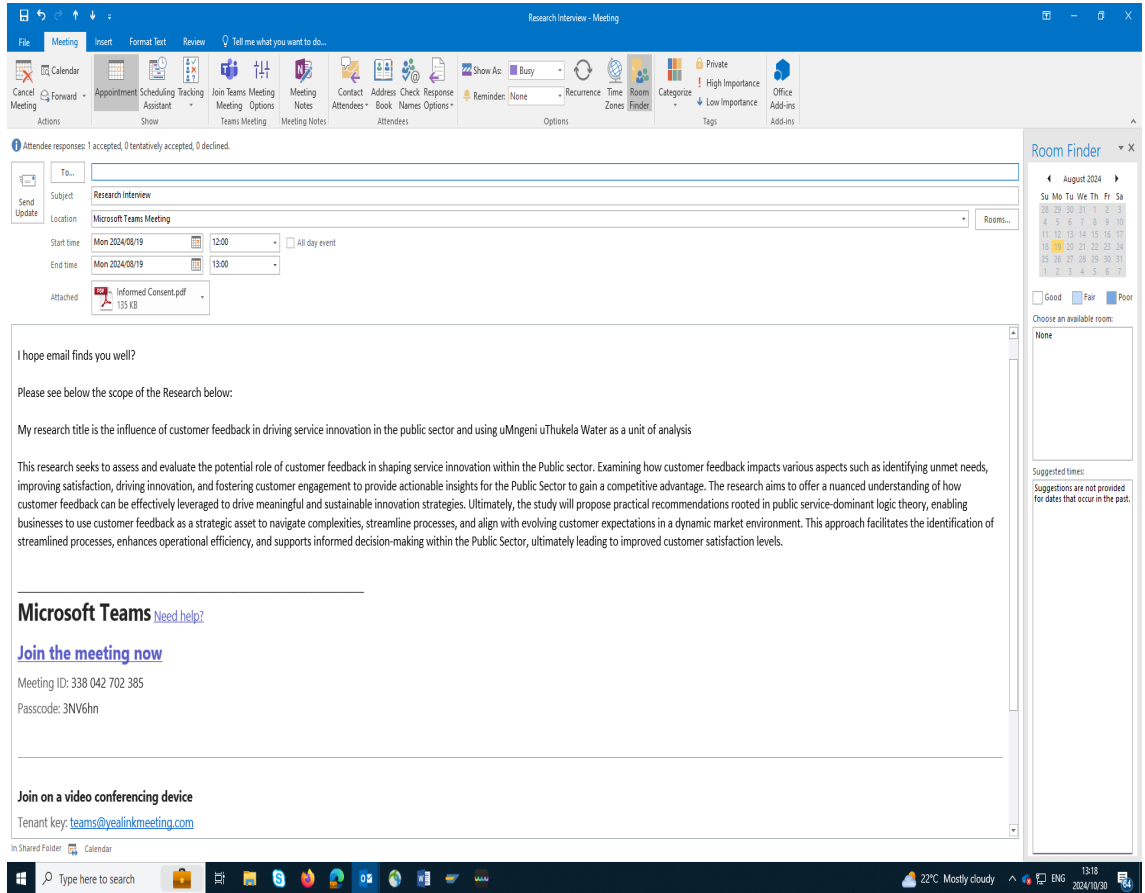
- agenda for project management. *European Management Journal*.  
<https://doi.org/10.1016/j.emj.2024.07.001>
- South African National Standard. (2015). *Quality Management System*.  
[https://www.gov.za/sites/default/files/gcis\\_document/201512/39504gen1206.pdf](https://www.gov.za/sites/default/files/gcis_document/201512/39504gen1206.pdf)
- Statistics South Africa (Stats SA). (2021). *Electricity, gas, and water supply industry, 2021*. <https://www.statsa.gov.za/publications/Report-41-01-022021>
- Tan, E. (2023). *The New Digital Era Governance: How New Digital Technologies Are Shaping Public Governance* (E. Tan & J. Cromptoets, Eds.). Brill.
- Trischler, J., Dietrich, T., & Rundle-Thiele, S. (2019). Co-design: From expert to user drive ideas in public service design. *Public Management Review*, 21(11), 1595–1619. <https://doi.org/10.1080/14719037.2019.1619810>
- Tueanrat, Y., Papagiannidis, S., & Alamanos, E. (2021). Going on a journey: A review of the customer journey literature. *Journal of Business Research*, 125, 336–353. <https://doi.org/10.1016/j.ibusres.2020.12.028>
- Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68(1), 1–17. <https://doi.org/10.1509/jmkg.68.1.1.24036>
- Vargo, S. L., & Lusch, R. F. (2014). Service-dominant logic: What it is, what it is not, what it might be. In Vargo, S. L., & Lusch, R. F. (Eds.). *The Service-Dominant Logic of Marketing* (pp. 43–56). Routledge.  
<https://doi.org/10.4324/9781315699035>
- Vargo, S. L., & Lusch, R. F. (2017). Service Dominant Logic 2025. *International Journal of Research in Marketing*, 34(1), 46–67.  
<https://doi.org/10.1016/j.ijresmar.2016.11.001>
- Vickers, I., Lyon, F., Sepulveda, L., & McMullin, C. (2017). Public Service Innovation and multiple institutional logics: The case of hybrid social enterprise providers of health and wellbeing. *Research Policy*, 46(10), 1755–1768. <https://doi.org/10.1016/j.respol.2017.08.003>

- Virtanen, P., & Jalonen, H. (2024). Public value creation mechanisms in the context of public service logic: an integrated conceptual framework. *Public Management Review*, 26(8), 2331–2354. <https://doi.org/10.1080/14719037.2023.2268111>
- Waddington, H., Sonnenfeld, A., Finetti, J., Gaarder, M., John, D., & Stevenson, J. (2019). Citizen engagement in public services in low- and middle-income countries: A mixed-methods systematic review of participation, inclusion, transparency and accountability (PITA) initiatives. *Systematic Reviews*, 15(1-2), e1025. <https://doi.org/10.1002/cl2.1025>
- Wankhade, M., Sekhara Rao, A. C., & Kulkarni, C. (2022). A survey on sentiment analysis methods, applications and challenges. *Artificial Intelligence Review*, 55, 5731–5780. <https://doi.org/10.1007/s10462-022-10144-1>
- Williams, S., Shaw, N., & Allen, D. (2017). A customer feedback model for service performance improvement: Preliminary case results. In *24th International Annual EurOMA Conference*, 01-05 Jul 2017, Edinburgh. <https://eprints.whiterose.ac.uk/118777/3/Williams%20SC%202017%20A%20customer%20feedback%20model%20for%20service%20performance%20improvement.pdf>
- Woszczyzna, K. S. (2015). Leadership and organizational culture as the normative influence of top management on employee's behaviour in the innovation process. *Procedia Economics and Finance*, 34, 396–402. [https://doi.org/10.1016/S2212-5671\(15\)01646-9](https://doi.org/10.1016/S2212-5671(15)01646-9)
- Yin, R. K. (2003). *Case study research design and methods* (3rd ed.). Sage Publications.
- Zhang, T., Wang, D., Tse, C., & Tse, S. (2023). Enhancing subsidiary innovation capability through customer involvement in new product development: A contingent knowledge source perspective. *Journal of Product Innovation Management*, 41(1), 86–111. <https://doi.org/10.1111/jpim.12700>

## **LIST OF APPENDICES**

APPENDIX A	Participant Email Inviting Them to Participate in the Study
APPENDIX B	Informed Consent Form
APPENDIX C	Permission Letter from Organisation
APPENDIX D	Instrument (Interview Guide)
APPENDIX E	Ethics Approval
APPENDIX F	List of Codes
APPENDIX G	Consistency Matrix

# APPENDIX A: PARTICIPANT EMAIL INVITING THEM TO PARTICIPATE IN THE STUDY



## APPENDIX B: INFORMED CONSENT FORM

I am currently a student at the University of Pretoria's Gordon Institute of Business Science and completing my research in partial fulfilment of an MBA. I am researching the influence of customer feedback in driving service innovation in the public sector.

Our interview is expected to last about an hour and will help us understand how customer feedback can be helpful in service innovation. **Your participation is voluntary, and you can withdraw at any time without penalty.** All data was reported without identifiers.

Please note that agreeing to participate in this interview allows you to consent to the conversation being recorded and transcribed. This ensures accuracy in capturing your responses for analysis.

If you have any concerns, please contact my supervisor or me. Our details are provided below.

Researcher name: Mandisa Mbatha

Email: X@mygibs.co.za

Research Supervisor Name: Hugh Myres

Email: X@gibs.co.za

Signature of participant: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of researcher: \_\_\_\_\_ Date: \_\_\_\_\_

## **APPENDIX C: PERMISSION LETTER FROM ORGANISATION**

Dear XXXXXXXX

Executive: XXXXXXXX

Provincial Water Board

Request permission to do a study on the Provincial Water Board

I am an MBA student from the Gordon Institute of Business Science (GIBS) researching the Influence of customer feedback in driving service innovation in the Public Sector.

This research seeks to assess and evaluate the potential role of customer feedback in shaping service innovation within the public sector, focusing on the main research question and sub-questions. Examining how customer feedback impacts various aspects, such as identifying unmet needs, improving satisfaction, driving innovation, enabling early validation of products/services, and fostering customer engagement to provide actionable insights for the public sector to gain a competitive advantage.

The intended benefit of this research is that the public sector constantly recognises the need to improve its services and processes. This research aims to provide recommendations on how these improvements can be achieved. The goal is to enhance public sector services' overall efficiency and effectiveness.

Obtaining ethics approval from the Gordon Institute of Business Science (GIBS) Research Ethics Committee is mandatory for all studies. This study has been/will also be approved and will be conducted according to accepted and applicable national and international ethical guidelines and principles.

I would like the assistance of the Provincial Water Board and, therefore, need your permission to conduct the study. The study will be conducted in an ethically sound and responsible manner and will consist of informed consent and interviews.

All information gathered will be treated as confidential and findings will be reported with the necessary discretion not to cause any harm to individuals and/or the

organisation. The identity of the Provincial Water Board will remain confidential throughout the dissertation and in any future publications derived from it unless there is explicit permission from you. The names of employees will remain confidential. Please feel free to suggest any additional restrictions you may deem necessary with respect to the research to protect the interests of the organisation.

Your support is important for the research, and it will be highly appreciated if you are willing to allow this research project. I shall provide you with a summary of findings or the research report after completion of the research if you feel the research can provide helpful insight for practice.

Please advise whether you would regard the above arrangements as feasible. Please do not hesitate to contact me or my supervisor on the numbers listed below should you require any additional information regarding the above arrangements. I look forward to hearing from you. Thank you for your kind consideration of this request.

Kind Regards

Mandisa Mbatha	Hugh Myres
Researcher	Research Supervisor
GIBS	GIBS
23003988@mygibs.co.za	X@gibs.co.za

Approval

Name	XXXXXXX
Designation	Executive: XXXXXX
Signature/Date	15/07/2024

## **APPENDIX D: INSTRUMENT (INTERVIEW GUIDE)**

### **Interview Process:**

- 1. Introduction and Purpose of the Study:**
  - a. Provide an overview of the study's objective.
  - b. Explain the significance of the research focus.
- 2. Initiate Interview Recording:**
  - a. Start recording the interview session.
  - b. Allocate a total duration of 60 minutes for the interview.
- 3. Interview Process:**
  - a. Ask questions aligned with research objectives.
  - b. Utilise a structured guide covering specific areas/topics.
  - c. Each question is designed to elicit thoughtful responses.
- 4. Closing the Interview:**
  - a. Express gratitude for the interviewee's time and insights.
  - b. Ensure a professional and courteous conclusion.
  - c. Leave a positive impression on the interviewee.

### **Questions to the customers:**

#### Demographic Questions

1. Which department or division of the business do you work in?
2. What is your role in the business?
3. What is the highest level of education you have completed?
4. How many years of experience do you have?

#### Technical Questions

5. How would you define innovation or service innovation?
6. What are the primary channels through which the Provincial Water Board currently collects customer feedback?
7. What barriers exist in the Provincial Water Board that might prevent the effective utilisation of customer feedback?

8. To what extent does customer feedback play a part in the strategic planning processes of the Provincial Water Board?
9. What best practices can be adopted from the private sector for using customer feedback to drive service innovation in the The Provincial Water Board?
10. Please describe What you think the measurable impacts of customer feedback-driven innovations might be in The Provincial Water Board?
11. Please describe What role leadership might play in fostering a culture that values customer feedback in The Provincial Water Board?
12. How can customer feedback be integrated into the continuous improvement processes of The Provincial Water Board?
13. How can different types of customer feedback (e.g., complaints, suggestions, surveys) influence service innovation differently?
14. How could The Provincial Water Board communicate the changes made due to customer feedback to the clients?
15. How could collaboration between different departments enhance the utilisation of customer feedback for service innovation?
16. What technological tools that you are aware of are most promising for collecting customer feedback in the public sector?
17. How could artificial intelligence and machine learning be utilized to analyse customer feedback in real time?
18. How could feedback management systems be designed to integrate seamlessly with existing public sector IT infrastructure?
19. What methods can be used to translate customer feedback into actionable insights for service innovation?
20. How can The Provincial Water Board ensure that service innovations meet the diverse needs of their customer base?

# APPENDIX E: ETHICS APPROVAL

## GIBS ETHICAL CLEARANCE APPLICATION FORM 2024/25

### G. APPROVALS FOR/OF THIS APPLICATION

When the applicant is a student of GIBS, the applicant must please ensure that the supervisor and co-supervisor (where relevant) has signed the form before submission

#### **STUDENT RESEARCHER/APPLICANT:**

29. I affirm that all relevant information has been provided in this form and its attachments and that all statements made are correct.

Student Researcher's Name in capital letters: MANDISA MBATHA

Date: 15 Jul 2024

Supervisor Name in capital letters: HUGH MYRES

Date: 15 Jul 2024

Co-supervisor Name in capital letters:

Date: 15 Jul 2024

**Note:** GIBS shall do everything in its power to protect the personal information supplied herein, in accordance to its company privacy policies as well the Protection of Personal Information Act, 2013. Access to all of the above provided personal information is restricted, only employees who need the information to perform a specific job are granted access to this information.

#### **Decision:**

Approved

#### **REC comments:**

Date: 22 Jul 2024

## APPENDIX F: LIST OF CODES

Main Code	Sub Code
Customer Feedback Impact	
Customer Feedback Impact	○ Alignment
Customer Feedback Impact	○ Alignment with Agreements
Customer Feedback Impact	○ Annual Reports
Customer Feedback Impact	○ Customer Agreements
Customer Feedback Impact	○ Customer Interactions
Customer Feedback Impact	○ Customer Needs
Customer Feedback Impact	○ Effective decision-making
Customer Feedback Impact	○ Focus on customer needs
Customer Feedback Impact	○ Improvement
Customer Feedback Impact	○ Innovation
Customer Feedback Impact	○ Innovative solutions
Customer Feedback Impact	○ Insights
Customer Feedback Impact	○ Long-term value creation
Customer Feedback Impact	○ Needs
Customer Feedback Impact	○ Preferences
Customer Feedback Impact	○ Realistic project commitments
Customer Feedback Impact	○ Resource allocation
Customer Feedback Impact	○ Leadership
Customer Feedback Impact	○ Satisfaction
Customer Feedback Impact	○ Service delivery
Customer Feedback Impact	○ Service Improvement
Customer Feedback Impact	○ Solutions
Customer Feedback Impact	○ Tariff Projects
Customer Feedback Impact	○ Unmet Needs
Customer Feedback Impact	○ Valuable Insights
Customer Input Utilisation	
Customer Input Utilisation	○ Actual Needs
Customer Input Utilisation	○ Adaptation
Customer Input Utilisation	○ Addressing Disconnect

Customer Input Utilisation	○ Affordability
Customer Input Utilisation	○ Aligned
Customer Input Utilisation	○ Aligning
Customer Input Utilisation	○ Aligning Projects
Customer Input Utilisation	○ Alignment
Customer Input Utilisation	○ Annual Reports
Customer Input Utilisation	○ Areas for improvement
Customer Input Utilisation	○ Barrier Overcoming
Customer Input Utilisation	○ Barriers Overcome
Customer Input Utilisation	○ Better outcomes
Customer Input Utilisation	○ Co-creation
Customer Input Utilisation	○ Co-design
Customer Input Utilisation	○ Concerns
Customer Input Utilisation	○ Continuous Improvement
Customer Input Utilisation	○ Continuous iteration
Customer Input Utilisation	○ Customer Agreements
Customer Input Utilisation	○ Customer expectations
Customer Input Utilisation	○ Customer Feedback
Customer Input Utilisation	○ Customer input
Customer Input Utilisation	○ Customer Interactions
Customer Input Utilisation	○ Customer Needs
Customer Input Utilisation	○ Customer Preferences
Customer Input Utilisation	○ Customer satisfaction
Customer Input Utilisation	○ Customer-centric
Customer Input Utilisation	○ Customer-centric Design
Customer Input Utilisation	○ Customer-centric innovations
Customer Input Utilisation	○ Customer-centric solutions
Customer Input Utilisation	○ Decision-making
Customer Input Utilisation	○ Decision-making processes
Customer Input Utilisation	○ Design
Customer Input Utilisation	○ Design and delivery of services
Customer Input Utilisation	○ Design and development
Customer Input Utilisation	○ Design and development process

Customer Input Utilisation	○ Development
Customer Input Utilisation	○ Effective
Customer Input Utilisation	○ Effective Service Delivery
Customer Input Utilisation	○ Effective solutions
Customer Input Utilisation	○ Effective Utilisation
Customer Input Utilisation	○ Enhanced satisfaction
Customer Input Utilisation	○ Enhancement
Customer Input Utilisation	○ Expectations
Customer Input Utilisation	○ Feedback
Customer Input Utilisation	○ Feedback-Based
Customer Input Utilisation	○ Focus on customer needs
Customer Input Utilisation	○ Ideas
Customer Input Utilisation	○ Identify areas for improvement
Customer Input Utilisation	○ Identifying areas for improvement
Customer Input Utilisation	○ Implement changes
Customer Input Utilisation	○ Implementing changes
Customer Input Utilisation	○ Improved service delivery
Customer Input Utilisation	○ Improvement Identification
Customer Input Utilisation	○ Improvements
Customer Input Utilisation	○ Incorporating feedback
Customer Input Utilisation	○ Incorporating suggestions
Customer Input Utilisation	○ Incorporation
Customer Input Utilisation	○ Incorporation of customer input
Customer Input Utilisation	○ Initiatives
Customer Input Utilisation	○ Innovation
Customer Input Utilisation	○ Innovative service solutions
Customer Input Utilisation	○ Innovative Solutions
Customer Input Utilisation	○ Insights
Customer Input Utilisation	○ Interactions
Customer Input Utilisation	○ Iteration
Customer Input Utilisation	○ Logical approach
Customer Input Utilisation	○ Long-term Value

Customer Input Utilisation	○ Long-term value creation
Customer Input Utilisation	○ Needs
Customer Input Utilisation	○ Overcoming Barriers
Customer Input Utilisation	○ Pain points
Customer Input Utilisation	○ Preferences
Customer Input Utilisation	○ Professionalism
Customer Input Utilisation	○ Professionalism Disconnect
Customer Input Utilisation	○ Project commitments
Customer Input Utilisation	○ Refinement
Customer Input Utilisation	○ Resource allocation
Customer Input Utilisation	○ Satisfaction
Customer Input Utilisation	○ Service Delivery
Customer Input Utilisation	○ Service Delivery Strategies
Customer Input Utilisation	○ Service Development
Customer Input Utilisation	○ Service Enhancement
Customer Input Utilisation	○ Service Improvement
Customer Input Utilisation	○ Service quality
Customer Input Utilisation	○ Service solutions
Customer Input Utilisation	○ Shifting focus
Customer Input Utilisation	○ Solid service provider
Customer Input Utilisation	○ Specific needs
Customer Input Utilisation	○ Strategic decisions
Customer Input Utilisation	○ Strategies
Customer Input Utilisation	○ Suggestions
Customer Input Utilisation	○ Tailored
Customer Input Utilisation	○ Tailored Services
Customer Input Utilisation	○ Tailored Solutions
Customer Input Utilisation	○ Tailoring Services
Customer Input Utilisation	○ Targeted service delivery
Customer Input Utilisation	○ Tariff Projects
Customer Input Utilisation	○ User Testing
Customer Input Utilisation	○ Valuable
Customer Input Utilisation	○ Valuable Insights

Customer Input Utilisation	○ Value creation
Technology Integration	
Technology Integration	○ Acting
Technology Integration	○ Alignment
Technology Integration	○ Analysis
Technology Integration	○ Analyze
Technology Integration	○ Analyzing
Technology Integration	○ Analyzing Data
Technology Integration	○ Analyzing Feedback
Technology Integration	○ Collect
Technology Integration	○ Collecting
Technology Integration	○ Communication
Technology Integration	○ Communication Channels
Technology Integration	○ Communication Platforms
Technology Integration	○ Continuous improvement
Technology Integration	○ Customer Agreements
Technology Integration	○ Customer Engagement
Technology Integration	○ Customer Input Analysis
Technology Integration	○ Customer Interactions
Technology Integration	○ Data Analysis
Technology Integration	○ Data Collection
Technology Integration	○ Data-driven decisions
Technology Integration	○ Data-driven solutions
Technology Integration	○ Effective
Technology Integration	○ Efficiency
Technology Integration	○ Efficient
Technology Integration	○ Efficient Analysis
Technology Integration	○ Efficient collection
Technology Integration	○ Efficient Data Collection
Technology Integration	○ Efficient feedback collection
Technology Integration	○ Efficient Platforms
Technology Integration	○ Feedback collection
Technology Integration	○ Feedback Data

Technology Integration	○ Feedback-driven Improvements
Technology Integration	○ Implement
Technology Integration	○ Implementation
Technology Integration	○ Implementing
Technology Integration	○ Improvements
Technology Integration	○ Incorporate
Technology Integration	○ Initiatives
Technology Integration	○ Integration
Technology Integration	○ Platforms
Technology Integration	○ Projects
Technology Integration	○ Quick response
Technology Integration	○ Real-time data analysis
Technology Integration	○ Real-time Feedback
Technology Integration	○ Scorecard
Technology Integration	○ Service improvements
Technology Integration	○ Solutions
Technology Integration	○ Streamlining
Technology Integration	○ Streamlining Process
Technology Integration	○ Technological Advancements
Technology Integration	○ Timely
Technology Integration	○ Tools
Technology Integration	○ Utilisation
Technology Integration	○ Utilizing

## APPENDIX G: CONSISTENCY MATRIX

<b>Influence of customer feedback in driving service innovation</b>			
<b>Research Questions</b>	<b>Literature Review</b>	<b>Data Collection Tool</b>	<b>Data Analysis</b>
<b>RQ1:</b> How can customer feedback drive service innovation in the Public Sector?	Section 2.3 :Service Innovation in the Public Sector Section 2.4: Customer Feedback in service innovation	Question 5-15	Coding and Thematic Analysis
<b>RQ2:</b> How can technological advancement play a role in facilitating the integration of customer feedback for service innovation	Section 2.5:Technological Advancement in the integration of customer feedback	Question 16-18	Coding and Thematic Analysis
<b>RQ3:</b> How can customer input be used in innovative service solutions and improvements	Section 2.6 :Customer Input	Question 19-20	Coding and Thematic Analysis