

Chapter Three: Methodology

3.0 Introduction

The previous chapter of this study identified and analysed the existing literature relating to e-bike usage, its criminal use and the efficacy of current strategies in tackling them. This review highlighted an obvious gap in current research, particularly in relation to the link between e-bikes and crime, emphasising the need for more primary research to explore this area.

This chapter of the research project aims:

To identify and justify an appropriate research approach to investigate e-bike usage, its criminal use and the efficacy of current strategies in tackling them.

Research is defined as “a process of steps used to collect and analyse information to increase our understanding of a topic or issue (Creswell 2008, p.27)”. Throughout this chapter, the framework of the Research Onion (Saunders et al., 2023) will be used to help select the most appropriate research method for this project.

3.1 The Research Onion

The model known as the Research Onion (Saunders et al., 2023) has been chosen to assist in identifying the most appropriate research method. For this dissertation, an interpretivist philosophy, inductive approach, and qualitative strategy have been adopted.

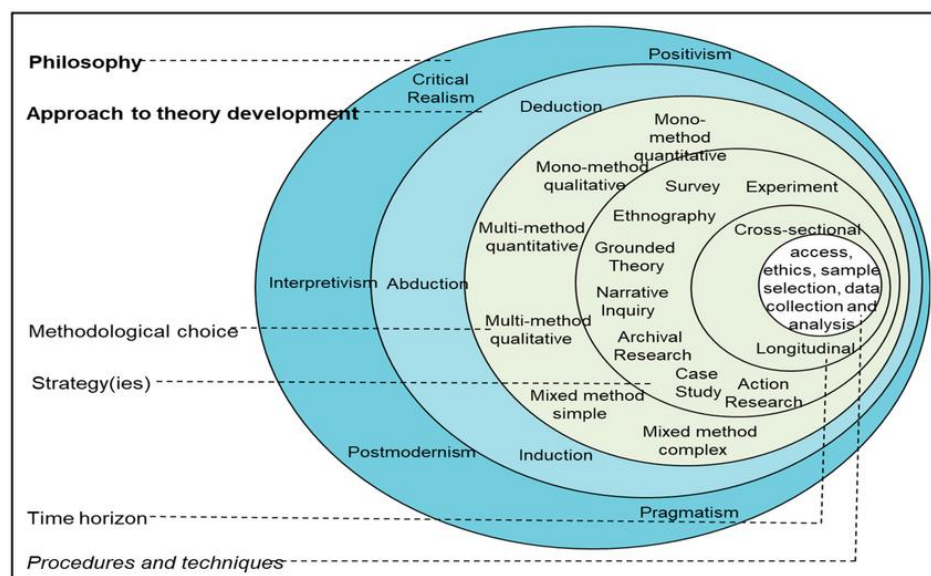


Figure 1.1 – The Research Onion (Saunders et al., 2023)

3.1.1 Research Philosophy

The study adopts an interpretivist philosophy, which assumes that reality is socially constructed and best understood by exploring participants' lived experiences (Bryman, 2016).

Interpretivism is suitable for capturing multiple views, which is significant as this study aims to understand how politicians, senior decision-makers, and police officers perceive and respond to e-bike crime.

3.1.2 Research Approach

In this study, the qualitative data that has been collected will be analysed to identify patterns and potential explanations. This will be conducted using an inductive approach. This approach suits new or developing topics where there is little existing theory, which makes it more appropriate than deductive research which evaluates established hypotheses (Bryman, 2016; Saunders et al., 2023).

3.1.3 Research Strategy and Choice

This study will adopt a monomethod design, relying entirely on interviews as a source of primary data with the chosen strategy being semi-structured qualitative interviews. This approach will allow participants to provide their insights into the issue and allow the flexibility to follow-up questions where necessary (Creswell, 2023).

While surveys could reach a larger number of people, this study is exploratory in nature and aims to gather detailed insights from those with direct experience. For that reason, qualitative interviews are a better fit than quantitative methods.

3.1.4 Time Horizon

Although this issue is growing, given the project's scope it is not possible to conduct a longitudinal study, therefore a cross-sectional design is adopted with the data being collected at a single point within the dissertation timeframe.

3.2 Techniques: Data Collection and Analysis

3.2.1 Data Collection

Semi-structured interviews will be conducted with three groups of participants:

1. Frontline police officers with experience of e-bike related incidents.
2. Senior officers or officers involved in policy decision making.
3. Local Member of Parliament, who was the first MP to raise the issue of criminal use of e-bikes in Parliament.

Following a flexible question guide, the interviews will be recorded with consent and transcribed for analysis.

3.2.2 Interview Question Matrix

A summary of the interview matrix is provided in the table below, while the full matrix is included in Appendix A.

Objective	Example Questions	Participants
Explore the extent of criminal e-bike use	“How common is the misuse of e-bikes in your area?”	Frontline Officers
Examine policing challenges	“What challenges do you face when tackling offenders on e-bikes?”	Frontline Officers
Evaluate strategies and policies	“What strategies has your force tried, and how effective have they been?”	Senior Officers
Assess political/legislative influences	“Do current laws support or hinder police action against e-bike misuse?”	Senior Officers, MP
Investigate political context	“What prompted you to raise the issue with Parliament?”	MP
Generate recommendations	“If you could change one thing tomorrow, what would it be?”	All Participants

3.2.3 Sampling

Participants will be selected that are directly relevant to the research aims. The expected sample is:

- 4-6 frontline officers in Gwent.
- 2-3 senior officers.
- 1 Member of Parliament (Newport East).

The sample size is suitable for this qualitative study, as the aim is to gain detailed insights from the participants over covering a large number of them.

3.3 Data Analysis

Braun and Clarke (2006) developed a six-step process for thematic analysis which will be used to analyse the interview transcripts using the following steps:

1. Familiarisation with the data
2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining and naming themes
6. Producing the report

3.4 Trustworthiness

Trustworthiness is prioritised within qualitative research. Lincoln and Guba (1985) established four elements to achieving trustworthiness in research which are credibility, transferability, dependability, and confirmability. Stahl and King (2020) built on this work with the caveat that the four elements need not always be employed, as long as it is demonstrated that the needs of the consumer of the research are met.

3.5 Limitations

This research study has several limitations. It is important to acknowledge these to avoid straying away from the aims of the research or towards bias (Sumpter et al., 2022).

The findings will not be generalised due to the small, context-specific sample. There may be limited access to participants due to operational demand or political availability. Some responses may be constrained by organizational sensitivities. The researcher's professional role might introduce bias.

3.6 Ethical Considerations

An important aspect of any research study is ethical consideration. It is incumbent on the researcher to ensure that participants are "Safe from harm and protected from unnecessary stress (Cacciattolo, 2015)". To aid with this, in line with university procedures, an ethics form was completed and approved.

To further safeguard and protect participants the following will also be implemented:

- **Informed consent:** Participants will be informed that they can withdraw at any time and fully briefed prior to interviews.

- **Confidentiality and anonymity:** Police officers will be anonymised and data securely stored on password protected devices.
- **Sensitivity:** Care will be taken not to compromise operational security.
- **Voluntary Participation:** No participant will be compelled to contribute.

There are no foreseeable concerns that any participant will be at risk of psychological harm because of this study.

3.7 Conclusion

This chapter has completed its objective of identifying and justifying an appropriate research approach to this study. By outlining the framework that will be used, it has justified the use of interpretivist philosophy, inductive approach, and semi-structured interviews. The summary question matrix demonstrates the link between research objectives and interview design, with the full version included in Appendix A.

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Appendix A – Interview Question Matrix

Research Objective	Interview Questions	Intended Participant(s)	Rationale
Explore the extent and nature of criminal/antisocial use of e-bikes	- How common is the criminal or antisocial use of e-bikes in your area? - What types of offences do you most often see involving e-bikes? - How do offenders typically use e-bikes to facilitate crime or evade police?	Frontline officers	To gather first-hand operational accounts of misuse.
Examine challenges faced by police	- What challenges do you face when tackling offenders on e-bikes? - Do you feel you have the necessary tools, powers, or resources? - Have you received any specific training or guidance?	Frontline officers	To identify operational and organisational barriers.
Evaluate policies and strategies	- Has your force developed strategies for e-bike related crime? - What strategies have worked well or poorly? - Have you considered initiatives from other forces? - Do you see benefits in police e-bike patrols?	Senior officers	To compare approaches across forces and assess effectiveness.
Assess influence of legislation, resources, and politics	- How significant is e-bike crime compared with other priorities? - What roles do budget and resources play? - Does current legislation support or hinder policing? - What policy changes would you like to see?	Senior officers, MP	To explore constraints and opportunities at structural and political levels.
Investigate local/national political context	- What prompted you to raise the issue in Parliament? - What feedback have you had from constituents? - Do you think there is a gap between public concern and government action? - How should MPs and councils support police?	MP	To capture political drivers and public concerns.
Generate recommendations	- What measures would be most effective in reducing e-bike related crime? - If you could change one thing tomorrow, what would it be? - Is there anything we haven't discussed that you think is important?	All participants	To inform practical and strategic recommendations for policing.