

**Faculty of Humanities and Social Sciences  
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**Navigating the Ride:  
Novel insights from the UK Private Hire and Taxi industry.**

A thesis submitted in accordance with the requirements for the degree of  
Doctor of Philosophy

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## Abstract

This thesis explores innovation and disruption in the UK Private Hire and Taxi market, benefitting from the unique position of ‘researcher as practitioner’. Harnessing access to insider networks, first-hand industry experience and access to exclusive and inimitable taxi journey data, I present three studies that investigate this industry from multiple, novel perspectives. Study one presents an analysis on disruption and innovation in the industry with regard to the emergence of global, e-hailing firms. Study two focuses on government policy and the implications for industry, focusing specifically on climate change legislation and the electrification of private hire vehicles. Study three contributes an intimate insight into strategic management practices within a family business, the intergenerational transitioning of a family firm and the consequences of succession. The findings from Study One advance existing literature by offering an alternative analysis of Uber as a disruptive innovator, contextualising it to the market in the United Kingdom. This contrasts with prior research which focuses exclusively on foreign markets or London alone, narrowing the analytical lens. Introducing the new concept of ‘disruptive money’ advances disruptive innovation theory, arguing that Uber’s disruptive activity is premised upon substantial subsidies, investment and regulatory disregard. Study two reveals that market reforms are likely to fail due to a lack of government understanding and representation of embedded structural interests in the marketplace. Findings from study two evidence how actors in this marketplace interact and unpack the dynamic between interests and power. The literature on electric vehicles is expanded by focusing on the unique use case of private hire vehicles, strategic management considerations and the business modelling consequences. Study three emphasises a complex interplay between tradition and innovation for successors of family firms, in addition to the deeply emotional and personal effect family firms have on their custodians. This thesis and its findings offer valuable contributions to literature on the UK Private Hire and Taxi market. New insights inform practitioners on industry disruptors, incumbent competitive response, the emerging industry challenge of electrification and managing a family firm in this context. Important implications for policymakers are also highlighted, with clear recommendations to both competition regulators and net zero legislators.

## Dedication

I first dedicate this PhD thesis to my parents, who have always encouraged and supported me in following my dreams. I also dedicate it to the tens and thousands of people who have played a part in helping to build my family business to where it is today – its employees, its drivers, its suppliers and its customers. Finally, I dedicate this thesis to Colin and Audrey Shanks, my grandparents, for their bravery, vision and hard work in starting the family firm in 1958 and for the life, opportunity and privilege they have afforded us.

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I would finally like to thank Blueline, my family business, for affording me the time and financial support to complete this PhD. I am truly grateful for this opportunity. Principally,

to my colleagues and the Partners of the business. And, I give my gratitude to all of the drivers, employees and customers that have contributed to the business' success since its inception in 1958. Without you all, I wouldn't have my passion.

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# Chapter 1 - Introduction

## 1.1 Personal Motivation

The intrinsic motivation for this thesis arises from a deeply personal place. As an active professional within the UK Private Hire and Taxi market, my experiences as a practitioner have raised major questions about industry developments and the meaning of these notions for disruption, innovation and management. A fertile marketplace with much activity, the UK Private Hire and Taxi market is a vital part of the transport network and infrastructure in the UK as the only door-to-door, 24/7 licenced transport service. Despite this, the corpus of literature addressing this industry is lacking, and in some cases, absent entirely. The geographical nuances of the industry, legislative complexity and increasingly rapid emergence of innovative technology have caused a chasm between real-world developments and literature. In academia, there is an absence of scholarly narrative and application of theoretical constructs specific to this industry. This insufficiency in subject scholarship is also echoed within government policy and agendas. With limited visibility and a scarce comprehensive understanding of these critical arenas, the industry faces multi-faceted challenges and requires attention – with rigour and specificity.

Consequently, the dominant research question, both practical and theoretical, motivating this thesis derives from the quest for further investigation as both a researcher and practitioner: what can an investigation into innovation within the UK Private Hire and Taxi market contribute to management and practice? Underpinned by professional interest and academic inquiry, this thesis is a body of research motivated to make a palpable impact on scholars, industry professionals and policymakers, as well as by revealing the significance of this industry in the UK.

## 1.2 Research Objectives

Having established a lack of critical exposure for the UK Private Hire and Taxi industry in academic literature, the first objective of this thesis is to advance research by investigating this marketplace. Knowledge, theoretical and empirical evidence has, to date, been limited principally to Uber and its operations in the UK capital, London, as well as its operations in taxi markets globally. Thus, taxi and private hire research has been restricted in its lens by harnessing its view on a singular operator and mode of operation. In doing so, it fails to recognise alternative business models and geographies representative of the wider industry, which is what this thesis aims to advance.

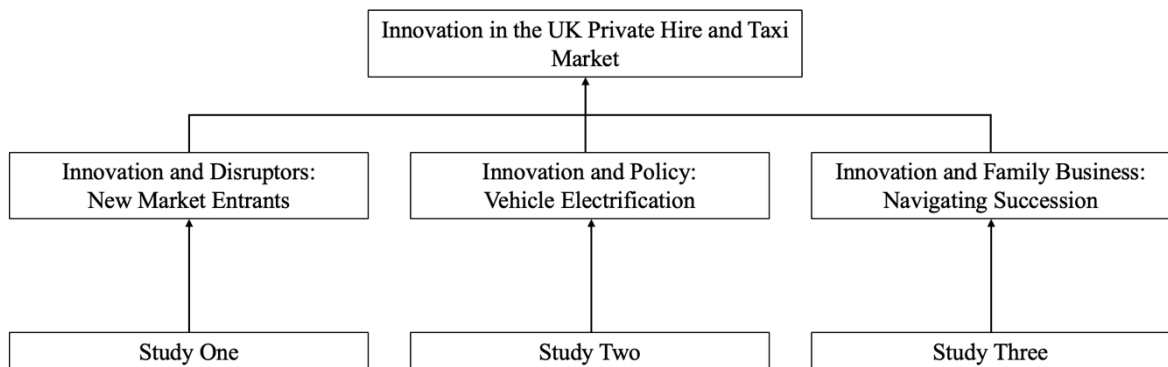
In addition to advancing academic literature, this thesis informs policy at both national and government levels, where the industry lacks representation and consideration in policy and legislation by providing a critical analysis of key industry developments, such as the emergence of disruptive technologies in the form of ride-hailing competitors, the development of climate policy and the implications of such policy on the industry regarding the electrification of fleets.

Finally, this thesis has been completed by a 'researcher-in-situ', and consequently, the final objective of this research is to use its autoethnography as a tool for deep professional and personal reflection as to how to navigate a business in this context as both a working professional in the industry and a family firm successor.

The overarching objective is to explore innovation at play within this industry context. Thus, this thesis is centred around innovation and innovation is explored across three distinct chapters. While each chapter pursues its own set of research aims and objectives, and uses its own theoretical frameworks, they maintain a deep-seated interconnectedness through the overarching theme of innovation. Within the private hire and taxi market, innovation unfolds across a spectrum of scenarios, and in practice, is interwoven rather than existing in isolation. Reflecting on this interrelationship between how innovation acts in this context, I delineate

various dimensions of innovation in this thesis - encompassing technological advancements in Study One, innovation and policy in Study Two, and nuanced insights into the dynamics of innovation within specific business contexts in Study Three—all of which exert influence on one another.

To capture this dynamic interplay, I adopt an adapted model from Teece’s dynamic capabilities framework, fashioning a Family Business Innovation Model (See Section 3.3 and Figure 3.1) to conceptually encapsulate the intricate relationships between different facets of innovation. I also, more immediately, illustrate the presence of innovation throughout the three studies from different perspectives, all contributing to the ultimate study of innovation within this context:



**Figure 1.1** – An illustration of how the concept of innovation connects all three independent studies within this thesis

The specific objectives of each of the three empirical studies undertaken for this thesis are set out in the below table and the following sections of this Chapter.

Research questions (RQ) of each study within thesis		
Study One: Disruptive innovation or disruptive money? The case of Uber, e-hailing and the UK private hire and taxi Market	Study two: The Transition to E-Taxis. How the UK private hire market has become a Forgotten Industry in the UK Government's Net Zero policy?	Study Three: Balancing Tradition and Transformation: the third-generation family business succession paradox.
<ol style="list-style-type: none"> <li>1. How does analysis of Uber's operations in the UK private hire and taxi market contribute to disruptive innovation theory?</li> <li>2. How can competitive response theory assist in understanding the UK private hire and taxi incumbents' response to disruptive innovation?</li> </ol>	<ol style="list-style-type: none"> <li>3. In this industry context, whose interests are being served by the current UK government's Net Zero Strategy?</li> <li>4. What role can Action Research play in designing a viable alternative?</li> </ol>	<ol style="list-style-type: none"> <li>5. What are the practical and theoretical implications of balancing personal ambitions, family and commercial success for third-generation successors in family firms?</li> <li>6. How are the experiences of the third generation impacted by the actions of the incumbents and other historical leadership?</li> <li>7. How does that affect the interplay between tradition and future innovation?</li> </ol>

**Table 1.1:** An outline of research questions (RQ) of each study within thesis

### **1.2.1. Study One (Chapter 4): Disruptive innovation or disruptive money? The case of Uber, e-hailing and the UK private hire and taxi Market**

This study addresses innovation by considers the disruptive nature of new, ride-hailing market entrants in the UK Private Hire and Taxi market, by assessing their modes of disruption compared with the competitive response of incumbent firms. The objectives of this study are summarised in research questions 1 and 2 in Table 1.1. Analysis advances understanding of the UK industry and broadens the scope to understand Uber's impact beyond London. By doing so, study one questions the notion that 'innovation is accepted without question to be a positive good' and instead argues that it is a 'highly politicized construct taken up by specific actors and

made to work in particular ways that are not always beneficial' (Bishop and Suchman, 2000, p.331). This study also aims to expand disruptive innovation theory by expanding prior literature to include non-market forces (Lux, Crook and Woehr, 2011; Doh, Lawton and Rajwani, 2012; Werner, 2017; Davies *et al.*, 2022).

### **1.2.2. Study Two (Chapter 5): The Transition to E-Taxis. How the UK private hire market has become a Forgotten Industry in the UK government's Net Zero policy.**

Study two broadens existing innovation research through vehicle electrification, and by focussing on the previously overlooked UK Private Hire and Taxi industry. Although private hire firms transport millions of passengers and are subject to national and local electrification policies, little consideration has been given to this mass transport network. The objectives of this study are summarised in research questions 3 and 4 in Table 1.1. Whilst the government is driving for electrification of the industry, industry stakeholders believe policy lacks consideration and understanding of operating behaviours, cost association and infrastructural needs. This study follows a novel approach to understanding this disjoint in interests by consulting a UK private hire and taxi firm, real-life taxi data and action research including various stakeholders, to produce critical insights for government policymakers – enabling the reassessment of the viability and market appropriateness of existing policy. Through application of Alford's (1975) theory of structured interests to a consumer-focussed, fast-paced industry in the private sector, I also offer a novel application to theory.

### **1.2.2. Study Three (Chapter 6): Balancing Tradition and Transformation: the third-generation family business succession paradox.**

This study specifically focuses on innovation through the context of family business management and intergenerational succession, noted by academics in the field (Miller, *et al.*, 2003; Fuad *et al.*, 2019) to be one of the most complex processes for a family business to undertake. Research questions 5, 6 and 7 in Table 1.1 steer this study. Using autoethnographic,



personal experience and by engaging in a deep exploration of personal notes, journals, memories and reflections that would typically be inaccessible to a researcher, I contribute to existing literature by extending methodological repertoire via a nuanced and intimate insight into the intergenerational transition of a family business from the perspective as a third-generation successor.

### **1.3 Critique of Innovation**

Considering the individual objectives of each study within this thesis, the common thread binding these research areas together is the critical evaluation of the prevailing notion of 'innovation', challenging the widespread belief that innovation is an inherently positive force. Instead, I scrutinise its role as a nuanced and potentially ambiguous driver of progress, in line with a small but growing number of studies that are beginning to shed critical light on innovation (Walsh, 2023).

Building on Gripenberg et al. (2012), who argue that innovation research 'seems to be built on a dominant assumption that "innovation is good" regardless of the consequences' (p. 1), this research delves into the negative, undesirable, and unintended outcomes associated with innovation. I highlight various adverse consequences of innovation, including the emergence of unfair competition, the misalignment between policy and practical implementation, resulting in economic, social, and operational complexities, and lastly, the psychological toll stemming from the pursuit of innovation.

Illustrating these negative consequences of innovation through three independent studies, I contribute to a more balanced understanding of its implications, challenging the prevailing narrative of innovation as an unmitigated force for positive progress.

### **1.4 Thesis Structure**

The remainder of this thesis is structured as follows. Chapter 2 outlines the background and industry context of the UK Private Hire and Taxi market by highlighting the size and scale

of the industry and key industry actors, commenting on regulatory and legislative activity within the marketplace and finally providing a literature review of existing research of this marketplace, which focusses on the disparity between new market entrants and traditional private hire operators. Chapter 3 then outlines how Teece's (1997) dynamic capabilities theory is used as an investigative theoretical framework for the thesis, linking the three distinct yet related studies. Chapters 4, 5 and 6 outline the three empirical studies that have been conducted. Each chapter presents its own independent relevant literature, methodological approach, data analysis, critical discussion of findings and concluding points. Finally, Chapter 7 offers concluding remarks on this thesis, including a summary of the main findings, the implications of the study and novel contributions made to this area of research. I also scope out the limitations of these studies and how these have been mitigated to the best of ability. Finally, the thesis offers recommendations for further research.

## **Chapter 2 - Background and Industry Context**

### **2.1 Introduction**

This chapter establishes the background to the thesis. First, a summary of the UK Private Hire and Taxi industry is provided (section 2.2). Second, explore the differences between the traditional UK Private Hire and Taxi Industry and ride-hailing companies are outlined, using Uber as an example case (section 2.3) and by drawing on existing literature on this subject area. Finally, summarising the key insights from this chapter relative to the research questions (section 2.4).

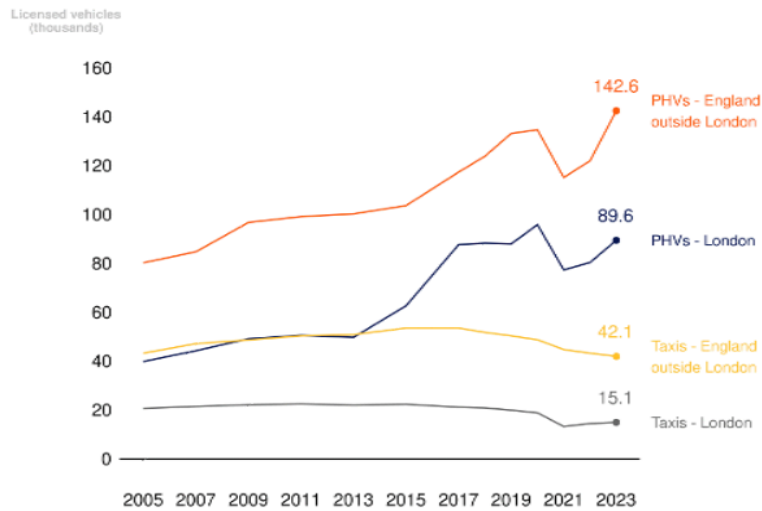
### **2.2 The UK Private Hire and Taxi Industry**

The Department for Transport (DfT, 2023) in their 2023 annual National Statistics release, defined taxis and private hire vehicles as:

Taxis, also known as hackney carriages, are available for immediate hire, can be hailed in the street ('ply for hire') [in the area in which they are licensed] or accept pre-bookings. Taxis have two types of licences, a vehicle licence (issued to the owner of the taxi) and a driving licence. Private hire vehicles, also known as minicabs, must be pre-booked and cannot use taxi ranks. It is illegal for PHVs to ply for hire. PHVs have three types of licences: a vehicle licence, a driving licence and an operator licence.

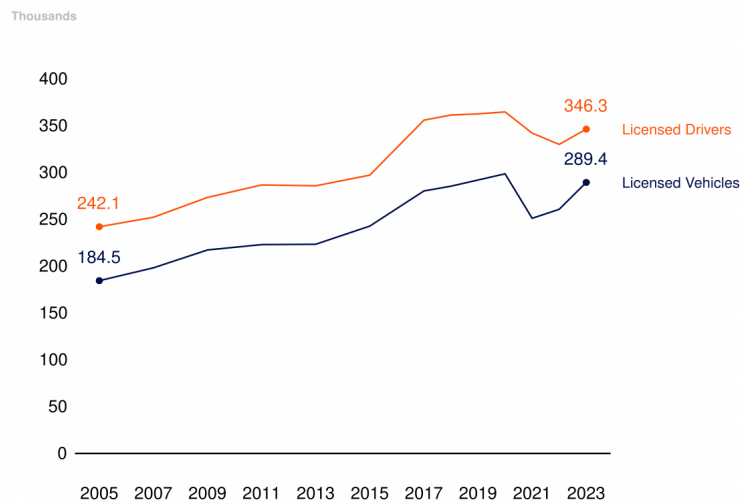
To contextualise the size and scope of the UK industry, the DfT National Statistics (2023) recorded 289,400 licensed taxis and private hire vehicles (PHVs) in England in 2023, an increase of 11% from 2022. This increase was driven by a 14.6% increase in PHVs, whilst taxis fell by 1.3%. Figure 2.1 below, illustrates the difference between PHVs and Taxis, as well as showing trends for London and cities outside London. Furthermore, how PHVs outside of London have seen growth beyond pre-pandemic levels, unlike London where growth is still visible but not yet eclipsing pre-pandemic levels. Conversely, taxi licences have been on the decline and have failed to reach pre-pandemic levels both in London and elsewhere in the UK.

Indeed, taxi licences have stagnated and continued to decline since the arrival of ride-hailing apps in the UK around 2012.



**Figure 2.1** – Licensed vehicles by type (PHV and Taxi) and area (London and outside London) in England from 2005 to 2023 (Source: Department for Transport: National Statistics, Taxi and private hire vehicle statistics, England: 2023)

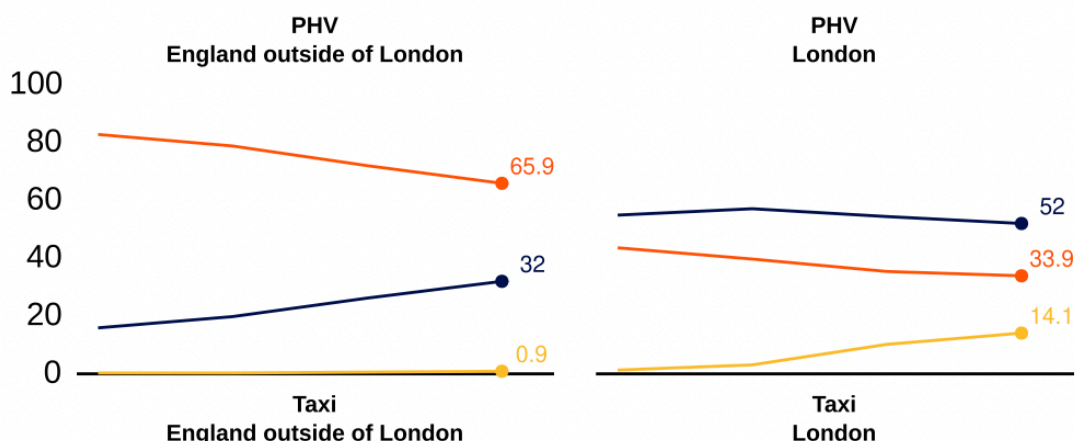
Approximately 346,000 drivers are licensed in England, an increase of 4.9% since 2022. Out of these drivers, 67% were PHV-licensed drivers, 11% were taxi licensed and 21% were dual-licensed. Using DfT records (ibid.) since 2005, the UK private hire and taxi market has seen a steady growth of both licensed drivers and vehicles – with drivers increasing from 242,000 drivers to 346,000 drivers in 2023, and vehicles increasing from 185,000 in 2005 to 289,000 in 2023 (See Figure 2.2, below).



**Figure 2.2** – Total licensed taxi and private hire vehicles and drivers in England from 2005 to 2023  
 (Source: Department for Transport: National Statistics, Taxi and private hire vehicle statistics, England: 2023)

In terms of vehicle type, over the period of 2020 to 2023, the DfT states that over 53% of PHVs are petrol or diesel, 40% are hybrid (self-charging and plug-in hybrids), with the remaining 6.4% of fleets fully battery electric. These breakdowns vary per region. For example, in the North East, there is a higher proportion (87%) of PHVs that remain petrol or diesel. Outside of London, the decline in petrol and diesel cars is driven by uptake in hybrid vehicles whilst electric uptake remains minimal at 0.9%. Inside London however, electric vehicles are seeing most growth with 14.1% of PHVs now electric in 2023, whilst petrol, diesel and hybrid vehicles are in decline (See Figure 2.3, below).

Percentage of vehicles



**Figure 2.3** – PHV fleet by fuel type, in London and England outside of London from 2020 to 2023  
 (Source: Department for Transport: National Statistics, Taxi and private hire vehicle statistics, England: 2023)

This chapter will now present an outline of the industry's operating structure, and recent developments such as the emergence of ride-hailing firms. By understanding trade developments over time, it will provide an informed context for understanding the data and trends. In addition, will lay the foundations for a comprehensive review (Section 2.3) of

competing forces in an evolving business landscape and particularly, the fundamental differences between UK-based traditional operators and global ‘ride-hailing’ market entrants.

### **2.3 History of the UK Private Hire and Taxi Market and the Regulatory Framework**

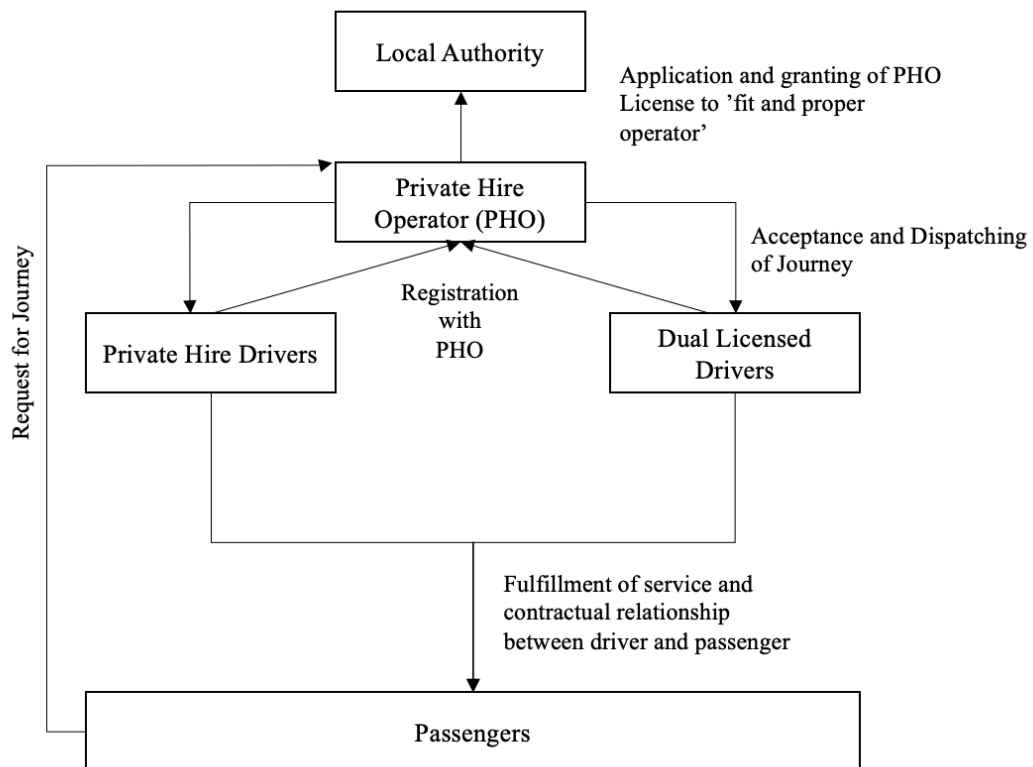
To understand industry dynamics and recent developments, it is first important to set out the historical legislative background. Philipps *et al.* (2023) refer to private hire and taxi legislation as a ‘complex shantytown of regulation’ (p.1199). Starting in 1831 with the first London Hackney Carriage Act, which permitted the transportation of a passenger for reward, the trade has been afforded minor attention or advancement by legislators since. This culminated in a House of Commons ‘Standard Note’ summarising that ‘the present regulatory arrangements governing taxis and PHVs have grown up by historical accident rather than by design’<sup>1</sup>.

Despite calls for regulatory overhaul, in 2019, the UK Government announced that it did not intend to reform primary legislation and instead, permitting local authorities to act independently using statutory guidance. In London, the industry is regulated by the Private Hire Vehicles (London) Act 1998 and outside of London, the industry follows adoptive legislation set out in the Local Government (Miscellaneous Provisions) Act 1976. Consequently, taxis and private hire in London are regulated by Transport for London (TfL) which centrally legislates for 32 district boroughs and local authorities, whilst those outside London operators are regulated by each individual district local authority in which the application for licensing is submitted. As such, private hire operators outside of London face a more complex regulatory landscape where they must adhere to multiple regulatory frameworks, since each local authority has the power to publish its own bespoke policies, compared to TfL which acts as a centralised regulatory body within London

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<sup>1</sup> House of Commons. Taxis: quantity restrictions, SN 2772 (29 May 2014).

Such nuanced operating differences outside of London are not understood regarding the causes and implications of recent developments in the industry, therefore, it is important to reiterate the distinction between taxis and private hire. Taxis may ‘ply for hire’ or be ‘hailed’ without prior booking or accept custom from a taxi rank in a licensed area. Contrariwise, private hire drivers must be pre-booked via a private hire operator and use a private hire vehicle all licensed by the same authority. It is therefore important to outline the interrelationship between private hire actors and the role which each play in the delivery of service. For a self-employed driver to operate on the road, they must also work in a relationship with a private hire operator (PHO) or hold a private operator’s license themselves since the invitation and acceptance of a journey must be fulfilled by a PHO. Despite this stipulation, the contractual agreement and fulfilment of service are coordinated between the driver and passenger.



**Figure 2.4** – An Outline of the UK Private Hire Industry and the relationship between involved parties (Author's Own).

The distinction between pre-booked services and hailed/ranked taxis, has undergone recent technological changes to revolutionise the way customers engage with PHV services. This led to the emergence of ‘ride-hailing’ companies that enable customers to see the location of imminently available PHVs, thus blurring the line between taxis and PHVs by the ability to pre-book in a manner that verges on hailing (Aarhaug and Skollderud 2014). Advances in smartphone technology combined with the UK government’s ‘Laissez-faire’ legislative<sup>2</sup> approach, has led to an industry model that ‘clearly lacks appropriate mechanisms for protecting certain public interests and public policy goals, as well as necessary mechanisms for consumer protection and market competition protection’ (Marin *et al.*, 2020, p.58). Firms like Uber have used outdated regulation (see Chapter 4) to define themselves as being able to ‘seamlessly connect riders to drivers’<sup>3</sup>, thus allowing Uber ‘to continue providing its core business model unhindered by any national law transportation regulation’ (ibid. p.18). However, the Court of Justice of the European Union (CJEU) ‘classified Uber as providing transport services or services in the transport field’ (ibid. p.9) because Uber offers and renders accessible transport services, using an electronic platform that ultimately enables the transportation service. If either element were removed from the model, the transportation service would not be possible, making them intrinsically and inextricably linked. Thus, it is the electronic platform that allows for the supply of urban transport on demand. As such, and in reality, I understand Uber’s business model by the below definition:

‘The main purpose of Uber’s business model is to provide the carriage of passenger road service with the aid of a digital platform (Uber’s application) that enables the establishment of contractual relations between the involved parties (integrated service with the transportation service as a dominant aspect

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<sup>2</sup> See also cf. [2]

<sup>3</sup> <https://www.uber.com/about>



of the overall service). Irrespective of the digital aspect present in Uber's business model, it would appear that the role of that individually definable digital (information society) service cannot exist separately from the transportation service. Absent of transportation service, the digital service would serve no actual purpose' (Marin *et al.*, 2020, p.52)

On this basis, I classify Uber as a transport provider and thus a PHO that is required to comply with the same regulatory framework as traditional PHOs – as outlined by the CJEU. In this next section, differences in operating practices are highlighted which will provide context for Chapter 4's analysis of whether Uber represents a form of disruptive innovation through new service offerings, or whether its nature of services aligns more with unfair competition in the marketplace.

#### **2.4 UK Private Hire and Taxi Industry**

A systemic review of existing literature, encompassing academic databases, university libraries, conference documentation and scholarly journals, has revealed limited academic attention to field of UK Private Hire and Taxi Industry. Although studies have been conducted on foreign markets (Dube, 2015; Surie and Koduganti, 2016; Kashyap and Bhatia, 2018; Liu and Kim, 2018, Finck, 2018) and Uber's operations in London (Dudley, Banister and Shwanen, 2017; Skok, and Baker, 2018), the overall dynamics and historical perspectives of the wider UK industry has not received focus.

Walter Skok (Skok and Tissut, 2003; Skok and Baird, 2005; Skok and Baker, 2018) has principally led research in the UK Private Hire and Taxi market, but their focus has centred on the London taxi industry. Skok's early research (2005) investigated how London's famous black cabs were disrupted during the 1970s and 1980s by the emergence of technology. Skok notes pre-bookings through the 'advent of telephones in business and the home' (*ibid.*, p.296) during the 1950s and 1960s, the emergence of two-way radios in 1974, computerised bookings

using electronic dispatching systems in 1983 and the introduction of global positioning systems (GPS) in 1996. His later work (2018) focuses on contemporary innovation within the trade, but again specifically concentrates on London by evaluating the impact of Uber on the UK capital's taxi service.

It must be noted that using London as a focal point for research fails to represent the wider UK industry – which differs from the capital due to regulatory, socio-economical and industry structure disparities. My review identifies a significant gap in the existing literature and contributes to and advances knowledge by focusing this thesis on this trade operating outside of London. To do so, I harness literature based on Uber and the taxi trade in London to draw useful comparisons between Uber and traditional operators. For example, Mudrić's (2020) in-depth legal analysis of Uber's operations in London helps to draw concrete distinctions between its operating practices and those of the wider UK industry – using workers' rights, taxation and pricing model as examples.

Mudrić (2020) first draws attention to the UK Employment Tribunal case between *Aslam and Farrar v Uber*<sup>4</sup> where the Courts concluded that Uber had a dominant role over its drivers, thus making them workers rather than self-employed contractors. The Courts specifically noting that 'Uber is paid by the application user, deducts its share, and then pays the Uber driver, who is, therefore, paid by Uber and not the application user' (Mudrić, 2020, p.38), meaning that Uber exerted total control over the funds driver receive. This financial model contrasts with that of traditional operators who redistribute all funds to drivers in full, before invoicing drivers for weekly charges. Hence, the private hire operator is not guaranteed their income and as such, places control in the hands of the driver as a self-employed contractor who has the responsibility to pay his suppliers.

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<sup>4</sup> *Aslam and Farrar v Uber*, United Kingdom Employment Tribunal, Case Number 2202550/2015 and Others.

This operational dynamic has recently triggered further legal action in the UK Private Hire and Taxi market with regard to value-added-tax (VAT). Given that Uber was deemed by the UK Courts to enter directly into a contract with passengers (for example, due to the payment model outlined above), this change in the contractual agency relationship restates Uber as principal, rather than an agent acting on behalf of a driver, and thus liable to paying VAT on all fares. Previously, Uber had just paid VAT on its agent's commission, yet the UK High Court deemed this as unlawful<sup>5</sup>. In 2022, Uber agreed a settlement with HMRC for £615m in unpaid VAT, followed by a further payment of £386m in July 2023, eclipsing £1billion in unpaid taxes<sup>6</sup>.

Regarding pricing models for rides, differences between new ride-hailing firms and traditional operating methods are distinctly highlighted. Whereas the traditional industry uses established and fixed variables such as distance and time to calculate metered prices for fares. Uber applies a more variable price determination model but factors more variable elements, such as levels of supply and demand. In other words, the higher the demand, the more inflated the fare price becomes. This surcharging 'acts as an indirect encouragement and incentive for Uber drivers to throw themselves into the market for the possibility of gaining higher fares than regular ones' (Petrović and Jakšić, 2020, p.159). Simply put, acting as a 'pricing algorithm that demonstrates elements of a cartel' (ibid., p.179), which is where a group's 'activities distort market competition' (ibid., p.156).

Overall, despite existing literature concerning Uber and its activities in London and foreign markets, no study has examined and offered representation to the wider UK Private Hire and Taxi industry and its traditional operators. Existing studies have failed to examine the industry in cities and towns outside of London and have not identified the distinct business and

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<sup>5</sup> United Trade Action Group Ltd, R (On the Application Of) v Transport for London, England and Wales High Court, Case Number C/4087/2020 & CO/30462021

<sup>6</sup> [www.taxpolicy.org.uk/2023/08/02/uber/](http://www.taxpolicy.org.uk/2023/08/02/uber/)

operating models between traditional private hire firms and new market entrants, nor the separate legislative and applicable operational frameworks. This thesis bridges that gap in existing research by providing insight into the wider industry.

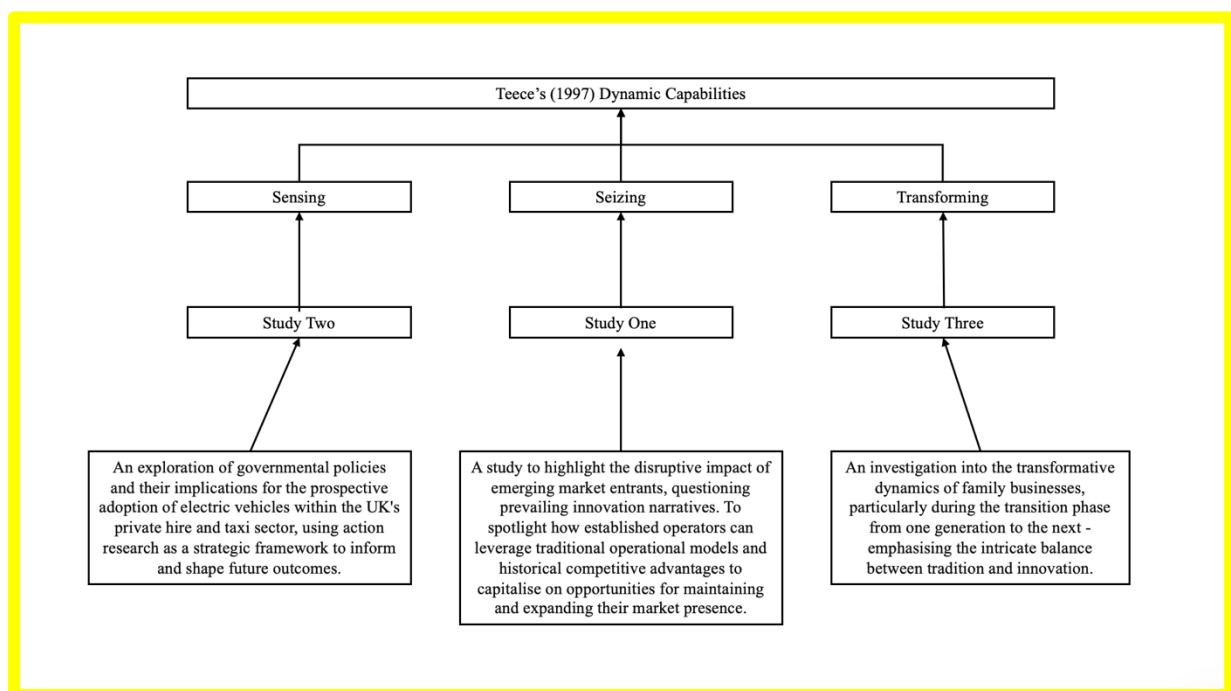
## **2.5 Summary**

The UK Private Hire and Taxi market is a growing industry with a steady incline since the early 2000s, both in terms of licenced drivers and vehicles both in and outside of London. The industry is complex, with multiple stakeholders and distinct business practices and models being employed by incumbent firms and new market entrants, with the latter operating outside of regulatory norms, resulting in a series of legal challenges. A lack of regulatory consideration afforded to this industry by regulators, with outdated regulation and an imbalance of regulatory application across geographies within the UK – highlighted principally the distinction between the Private Hire Vehicles (London) Act 1998 in London and the Local Government (Miscellaneous Provisions) Act 1976 outside of London.

### 3. Chapter 3 – Theoretical Framework: A Family Business

#### Innovation Model

To demonstrate the synergies between the three independent studies within this thesis, Teece’s (1997) dynamic capabilities theory is employed as an investigative framework to integrate the rationale, findings and contributions of each study to achieve the overarching research objectives of this thesis. To illustrate this, see below Figure (also see Section 3.3).



**Figure 3.1** – A figure representation of how the three-core fundamental Dynamic Capabilities proposed by Teece (1997) serve as a structural framework for the three studies within this thesis.

#### 3.1 Dynamic Capabilities

Teece *et al.*'s (1997) seminal strategic management conceptualisation of dynamic capabilities provides a framework for understanding how firms address uncertainty, adapt and innovate in a rapidly changing environment. Dynamic capabilities are defined as ‘the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments’ (Teece *et al.*, 1997, p.516). Teece *et al.* (ibid.) notes how firms can

harness dynamic capabilities to construct business models that achieve competitive advantage. In many cases, there is an inability of competing firms to replicate ‘the idiosyncratic characteristics of entrepreneurial managers and the history-honed routines and culture of the organisation’ (p.43) which further extends their competitive advantage. Combined with strategy, which Rumelt (2011) defines as ‘a coherent set of analyses, concepts, policies, arguments and actions that respond to a high-stakes challenge’ (p6), dynamic capabilities together create a business model that enables transformation. Given the market trends, regulatory challenges and technological change characterising developments within the UK Private Hire and Taxi market and their alignment with Teece *et al.*’s (1997) theory of how firms can harness capabilities to compete, I next expand the rationale behind the adoption and grounding of this theory in this context as a suitable lens through which I explore this industry.

### **3.2 Theoretical Underpinning of Thesis**

In this thesis, Teece *et al.*’s (1997) framework of core dynamic capabilities activities: sensing, seizing and transforming is a useful investigative framework that aligns with the research objectives, findings and insights of each of the three empirical chapters.

First of the dynamic capabilities is ‘sensing’ a firm’s ability to identify and be alert to industry opportunities and threats in the external environment. Second, firms must seize opportunities effectively through strategic decisions and action. Firms can do this by entering new markets, releasing new products and services and developing new partnerships. Third, is how a firm reshapes and reconfigures its internal resources to align with the newly seized opportunities, including redesigning organisational structures, modernising processes or developing new managerial competencies (Teece, 2007).

To draw parallels with Teece *et al.*’s (1997) framework and how it helps to connect my three distinct yet related studies, an outline of how each study has been structured in line with dynamic capabilities theory follows. To demonstrate the ‘seizing’ element of this framework in

relation to the UK Private Hire and Taxi industry, is a presentation of how firms harness their traditional modes of operating and historical operating practices to compete. Study Two focuses on ‘sensing’ and how firms within the industry assess the viability of new markets and opportunities, considering the development new product and service offerings, using vehicle electrification as the focus - given that firms are being directed by governmental policy to decarbonise their fleets. The third study explores ‘transforming’ how family firms transform during intergenerational transitioning and succession – specifically, the interplay between tradition and innovation. Thus, conceptualising, how firms modernise processes, and how succeeding generations ensure managerial competencies are suited to strategic goals.

### **3.3 A Family Business Innovation Model**

Linked to the above framework, is the fundamental development of this thesis where the author is a researcher-practitioner (Denzin and Lincoln, 2003; Scotland, 2012). This unique position of ‘insider’ (Coffey, 1999; Atkinson *et al.*, 2001; Hannerz, 2003; Hammersley and Atkinson, 2005; Wall, 2006; Clarke and Braun, 2022) within the UK Private Hire and Taxi Industry and within a family business and as a third-generation successor play a key role in the design, collection, and analysis of research data. These privileged positions have advanced Teece’s model, extending it to apply directly to family firms and exploring the unique nature of family businesses and the innovation-centric focus of this thesis. This extended model is illustrated in Figure 3.2 below.

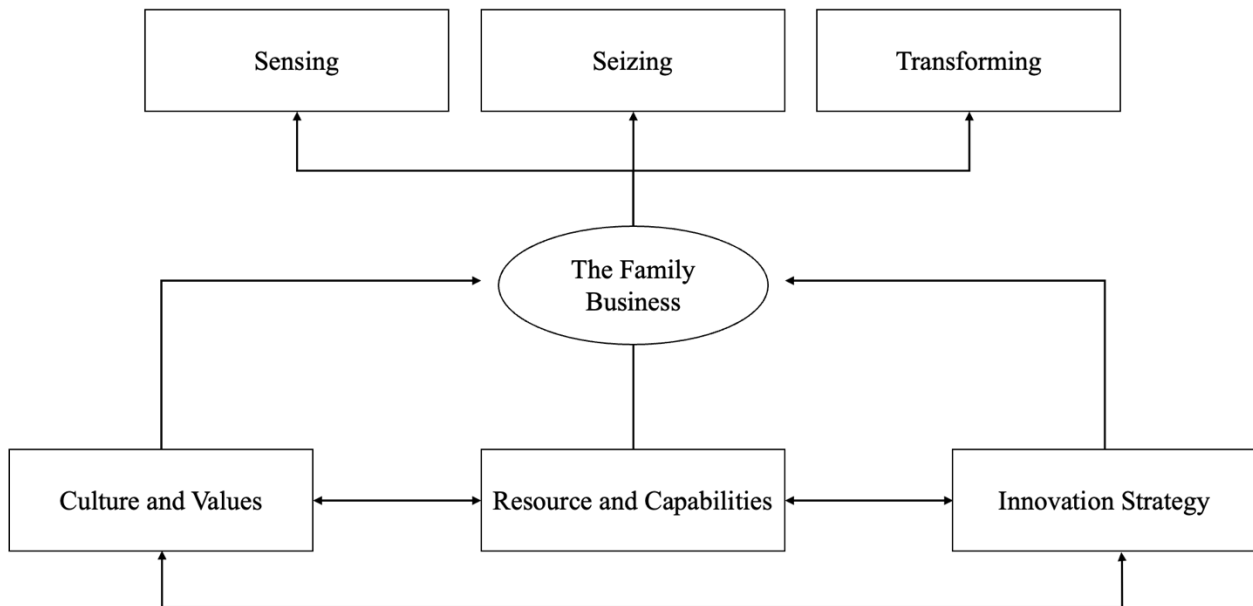
The conceptual model consists of the core family business which is associated with three interconnected dynamic capability dimensions: culture and values (CV), resources and capabilities (RC) and innovation strategy (IS), influenced by the view that dynamic capabilities are higher-level capabilities that ‘can take a variety of forms and involve different functions’ (Easterby-Smith, Lyles, & Peteraf, 2009, p.6) such as knowledge transfer, environmental factors, and changes to operational processes. For family businesses, culture and values address

family values, history and shared history (Teece, 2018) (See sections 6.2, 6.4.2, 6.5.1 and 6.5.2). Resources and capabilities refer to financial and human capital, such as access to finance, liquidity and the knowledge and expertise of family members (Easterby-Smith, Lyles, & Peteraf, 2009) (See sections 4.2, 4.4.1, 4.4.3, 5.5.2 and 6.5.1). Innovation strategy focuses on the family's approach to innovation, such as appetite for risk, short and long-term vision, and alignment with family goals and family office strategy (See sections 4.2.2, 4.4.3, 5.3.1, 5.5.2, 6.2.1, 6.3 and 6.5). The model also illustrates the interactions between these dimensions, and thus, the ability of a family business to sense, seize and transform. These interactions are as follows:

- 1.3.1 Interrelationship between Cultures and Values and Resources and Capabilities: the cultures and values of a family influence how resources are deployed and how capabilities are developed. Similarly, the availability of resources and capabilities can shape culture and values. For example, if there is a highly skilled family member within the firm, this can increase levels of trust.
- 1.3.2 Interrelationship between Cultures and Values and Innovation Strategy: family values dictate the innovation strategy employed by the firm. If family managers foment a conservative culture, innovation strategy will integrate with this ethos. Similarly, if the family creates a forward-thinking, driven and motivated culture, the innovation strategy will be more exploratory. Simultaneously, the innovation strategy can reinforce or influence the family's culture over time. For example, a high strategy that results in human, social or financial loss can alter a previously risk-tolerant culture to become more risk-averse.
- 1.3.3 Interrelationship between Resources and Capabilities and Innovation Strategy: the availability of resources and capabilities to a family can determine its ability to execute the desired innovation strategy with optimal effectiveness. For example, the family may



not have the necessary technical skills or innovative mindset to drive innovation, or the necessary capital to fund innovative strategies. Similarly, innovative strategies can



**Figure 3.2** – An adaptation of Teece’s Dynamic Capabilities (1997) to create a Family Business Innovation Model in the context of a UK Private Hire and Taxi firm (Author’s Own).

Having outlined the application of Teece’s dynamic capabilities (1997) as a theoretical underpinning of this thesis, and its role in connecting my three distinct yet related studies through my adapted Family Business Innovation Model (Figure 3.1), critiques of this theory warrant consideration. Teece *et al.*’s (ibid.) dynamic capabilities theory has been criticised from various perspectives (Katkalo *et al.*, 2010) such as the that ‘a universally accepted definition has been slow to emerge’ (Easterby-Smith, Lyles, & Peteraf, 2009, p.2), creating ambiguity in its definition, application, and outcomes. Zollo and Winter (2002) argue that dynamic capabilities are simply best practices of equifinal nature. However, firms are increasingly having to shift from ‘steady state operations to constant adaptation’ (Arthur, 2009, p.210) due to technology and its multi-dimensional, reconfigurable, and fast-acting nature. In line with this, Teece (2023) argues that his seminal works offer a more dynamic way of capturing ‘the

richness of actual competition and the particularities of time and place’ and so ‘one needs to sacrifice the transparency and testability of overly parsimonious theories’ in everchanging contexts. As such, empirical studies are increasingly applying dynamic capabilities to frame their analysis of digital transformation (Cannas, 2021; Soluk and Kammerlander, 2021; Chirumalla, 2021), as is the case in the context of the technologically driven UK Private Hire and Taxi market. Teece’s refinements to this framework are also relevant to the context of family business too, noting how dynamic capabilities, in line with family businesses, offer a long-term view, promoting a ‘continuous learning process, periodic pruning and ongoing orchestration of intangible assets and other resources’ (Teece, 2023, p.115), whereby ‘strong dynamic capabilities also tend to have their own, unique signature processes’ (Gratton and Ghoshal, 2005, p.119) which are historical and irreplicable by competitors.

Thus, despite its age and critique, Teece’s malleable, outward-looking, long-term, and digitally focussed framework therefore offers itself as a relevant model to underpin this thesis in achieving my overarching research objectives. To explore the fast-moving, technology-driven UK private hire and taxi marketplace, changes in regulatory environments and an autoethnographic account of navigating a family business in this industry context. The next Chapter introduces Study One of this thesis.

## **4. Chapter 4 – Study One: Disruptive innovation or disruptive money? The case of Uber, e-hailing and the UK private hire and taxi Market**

### **4.1 Introduction**

Uber, operational in the UK since July 2012 has become one of the most recognised e-hailing platforms to operate in the UK private hire and taxi market (Dumitru, 2016). To demonstrate its presence, Uber generates 24% of its sales from five major cities worldwide, including London, where it operates with 45,000 drivers (Burrige, 2019) and controls 85% of the 42% of private hire journeys booked through a mobile application in London (Taxi and Private Hire, 2016a). Despite establishing an e-hailing offering, the American firm has failed to penetrate other key UK cities and overcome incumbent private hire firms to confirm national market leadership. To gain traction and market share when launching in highly competitive UK cities, Uber historically implements aggressive and well-funded growth strategies to attract new customers and drivers, such as discounted fares and other additional financial inducements or what I call ‘disruptive money’ (Ezrachi and Stucke, 2016)<sup>7</sup>.

However, Uber has not launched in a new city in the UK since 2017. In addition, the firm has encountered multiple legislative and regulatory battles – most notably the revocation of its operator’s licence by Transport for London (TfL) both in 2017, and again in 2019 after an initial appeal. In response to both financial and legislative challenges, Uber, in 2020, acquired Autocab<sup>8</sup> – adding to their operations, through the control of a global taxi dispatching system, connecting the firm directly to incumbent private hire firms and providing the suitable digital architecture to become an aggregator platform. This centralised booking platform uses traditional private hire firms to fulfil the end-journeys as the service provider.

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<sup>7</sup><https://www.heraldscotland.com/news/14713000.uber-accused-of-trying-to-entice-drivers-with-financial-incentives/>

<sup>8</sup> [www.autocab.com](http://www.autocab.com) (Autocab are a Private Hire booking and dispatching software provider)

To better understand the challenge of Uber, this chapter reveals insights into how incumbent firms responded to Uber via effective competitive response strategies. In addition, as digital transformation is afoot across the UK private hire and taxi market, I uncover the extent to which Uber has disrupted the UK private hire and taxi trade.

At the time of writing, limited evidence exists in relation to Uber's activity in the UK private hire and taxi trade being deemed as 'disruptive innovation' (Christensen, 1997, 2003, 2015, 2018). Furthermore, none of the existing studies focus on the firm's impact on the wider industry outside of London, nor the impact and competitive response of incumbent operators (e.g., Dudley, Banister and Shwanen, 2017; Cramer and Krueger, 2018; Dudley, Skok, and Baker, 2018). Therefore, new insights are gleaned through the context of the UK industry and broadening the scope to encompass the national-level landscape to understand Uber's impact beyond London. Likewise, examining the competitive response and future role of traditional operators in this space, which has received little attention from both market players and regulators.

Consequently, the premise is that the ride e-hailing firm is not entirely disruptive in a theoretical sense and instead harnesses other factors, such as its access to venture capital (VC) funding and regulatory breaches, to disrupt the industry but, has still failed to capture the market outside of London. By focusing on the UK market, this chapter develops Garud *et al.*, (2020) findings that demonstrate how Uber's permissionless market entry in the US, validated a business model predicated on breaking the law and intentional engagement with illegal activity, as a tactic replicated by Uber in the UK (Edelman, 2017).

My approach questions the 'innovation' rhetoric within organisational and technological practices in the UK private hire and taxi trade. An extended framework of disruptive innovation and evidence from industry experts, challenges the notion that 'innovation is accepted without question to be a positive good' and instead supports the idea

that it is a ‘highly politicized construct taken up by specific actors and made to work in particular ways that are not always beneficial’ (Bishop and Suchman, 2000, p.331). Accordingly, two questions are posed: (a) How does analysis of Uber’s operations in the UK private hire and taxi market contribute to disruptive innovation theory? (b) How can competitive response theory assist in understanding the UK private hire and taxi incumbents’ response to disruptive innovation?

To inform such questions, real-world phenomena is collected via personal, lived experiences from experts embedded within the industry producing six cases including twelve months participant observation to deliver novel empirical insights. First, the legislative negligence and venture-capital investment that underpins Uber’s activities is outlined. Second, the nature of Uber’s ‘disruptiveness’ and whether this is technological, monetary, or business model, innovation is explored. Third, is how the traditional private hire industry has launched effective competitive response strategies to Uber, in pivoting to technologically advanced applications that sit within profitable business models. Fourth, is the contribution to the broader literature focused on Uber through empirical evidence from across the UK market, as opposed to the US and Uber’s activity in London alone (Dudley, Banister and Shwanen, 2017; Cramer and Krueger, 2018; Dudley, Skok and Baker, 2018, Garud *et al.*, 2020).

For practitioners, as this industry is valued at £9.9bn in 2021-22 (Skok and Baker, 2018), unique insights can further inform the debate surrounding Uber’s historic disregard for UK private hire and taxi legislation (cf. Transport for London (TfL) ruling)), by asking strategic questions for policy frameworks across the UK, such as the Competition and Markets Authority, as suggested by industry experts (See Table 4.5 in Appendix A). Findings include Uber’s business model in contrast to traditional firms, concerning the sustainability of gig-economy start-ups such as Uber, and their reliance on super-platforms, like Apple and Google, ‘who ultimately hold the key to coexistence, exclusion, or the possible acquisition of the

downstream operator' (Ezrachi and Stucke, 2016, p.155). Thus, providing a contribution to literature, and implications to industry stakeholders, who form part of wider competitive response strategies to combat market challengers.

The remainder of this paper is structured as follows, review of key literature underpinning the emergence, market entry and issues surrounding Uber in the context of disruptive innovation. Established theory is expanded to include the concept of disruptive money and competitive response strategies. Next, is the approach to the collection and analysis of data. Concluding the chapter is discussion of the findings accompanied with concluding remarks, recommendations and identifying future research avenues.

#### **4.2 Disruptive Innovation, Context and Uber's non-market strategies**

Uber emerged as a digital catalyst or 'disruptor' in this market quickly, as opposed to an incremental rise to dominance (e.g., over several decades) through adopting a pump-prime investment or 'disruptive money' (See section 4.2.1) fuelled e-hailing platform to target a mass market opportunity. Examining Christensen's (1997) seminal work on disruption of innovation theory, indeed, initial emphasis centred on technological (digital) innovations and the ability to disrupt extant marketplaces. The significance of capital from angels, venture capitalists and crowdfunding opportunities were not considered, they did not exist. Now, in the digital economy era, the impact capital injections can provide, is witnessed in sectors such as financial technologies (FinTech) (Hoenig and Henkel, 2014; Giaquinto and Bortoluzzo, 2020). Here, the effect of injecting large capital amounts underpins disruption, thus, disruptive money is defined here as a critical dimension of the innovative process. For example, by using subsidised, algorithmic, and monopolistic pricing, Uber can mimic 'a perceived competitive price rather than a true market price' to disrupt the market, creating barriers for the profitable, and sustainably priced, incumbent firms (Ezrachi and Stucke, 2019, p.51). Further, firms harness money as a significant resource for their non-market strategies, such as corporate political

activity (Lux, Crook and Woehr, 2011; Werner, 2017). Non-market factors, such as policy and regulation, affect the competitive forces of industries and their dynamics. Therefore, firms employ strategies to address and influence these non-market factors. Thus, they can have ‘a darker side, where corruption and immoral practices can dominate’ (Doh, Lawton and Rajwani, 2012, p.23) given that much political activity takes place discretely, in the shadows and away from the public sphere (Jia, 2018).

#### **4.2.1 Disruptive Money**

In the context of Christensen and Raynor’s (2003) refined initial findings, producing a less prescriptive and restrictive definition of disruptive innovation, as Markides (2006, p. 19) elaborates ‘widened the application of the term to include not only technologies but also products and business models.’ I add investment monies to this refinement. Thus, the multi-dimensional vision of disruption that was reframed from disruptive technologies to disruptive innovation (DI), is applicable in the analysis of firms like Uber, who introduced a new percentage-based fee structure model to drivers into the UK private hire market, instead of a fixed fee model used by incumbents (Nowag, 2016).

However, considering the broader definition of DI - an ‘evolution from a technology-change framework – essentially descriptive and relatively limited in scope – to a more broadly explanatory casual theory of innovation and competitive response’ (Christensen *et al.*, 2018 p.1043), Uber emerges as a sustaining innovation as opposed to DI. To explain, viewing their UK service offering beyond London, this did not present lower quality, nor cheaper to the consumer than other firms in the same marketplace thus, fails to meet the criteria of DI as espoused by Christensen. Hence, Markides (2006) challenges Christensen’s newly coined concept of DI, arguing that DI, when applied to technological advancements such as e-hailing apps like Uber, arises and presents itself in a different form. This differing form includes initiating varying effects premised on the monetary investment, that need unique competitive

responses compared with business-model-specific disruptive innovation or radical-product innovation which requires its own specific managerial responses (ibid.). For example, DI theory suggests that disruptive technological innovations increase their market presence over time and result in domination and control of the market. In contrast, business-model innovation, now situated under the theoretical framework of ‘disruptive innovation’, ‘does not support such an extreme position’ as business-model-led disruptive innovation often ‘fails to completely overtake the traditional way of competing’ (Markides 2006, p.21). Hence, the definition of DI requires further refinement to prevent such nuances from allowing a clearer understanding and application of the term and, this view of DI whereby Uber is defined as an ‘institutional disruptor’ leveraging disruptive money, will be adopted for this empirical study (Laurell and Sandström, 2016).

The term ‘disruptive money’ not only refers to its inherent asset value, and that of subsequent financial investment but also the indirect value of money in the form of politicking and influence. To provide clarity, by this I refer to the ‘indirect application of financial resources to strategic choices’ (Aplin and Hegarty, 1980), in the form of inducement, coercion, persuasion and obligation (Parsons, 1969), acting as a non-market force to drive economic, social and political performance (Baron, 1995).

The Guardian’s Uber Files leak<sup>9</sup> of 124,000 confidential documents provide evidence of Uber’s use of non-market forces (Davies *et al.*, 2022), describing how the firm ‘put pressure on governments to rewrite laws to help pave the way for an app-based, gig-economy model’ (ibid., para. 23) and how it was ‘adept at finding unofficial routes to power, applying influence through friends of intermediaries, or seeking out encounters with politicians at which aides and officials were not present’ (ibid., para. 29). In addition to lobbying politicians, the leaks reveal

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<sup>9</sup>The Guardian (2017). Uber Files: 124,000 confidential documents leaked.  
<https://www.theguardian.com/technology/2017/jul/15/uber-files-124000-confidential-documents-leaked>



how Uber ‘in a bid to shape policy debates... it paid prominent academics hundreds of thousands of dollars to produce research that supported the company’s claims about the benefits of its economic model’ (ibid., para. 31) as well as encouraging violent protests and internally acknowledging illegal practices such as denying law enforcement agencies access to incriminating data.

Thus, I offer a more nuanced concept of innovation, factoring these non-market factors and strategies, enabled by access to ‘unprecedented venture capital funding’ (ibid., para. 18) which is used as ‘disruptive money’. After setting the DI debate in context, next is a discussion of current literature pertaining to competitive response in the face of a challenger and illustrate the applicability between Uber and incumbents in this industry.

#### **4.2.2 Competitive Response**

To understand the consequences for firms faced with the emergence of Uber, competitive response literature offers insights into prior instances of disruptive marketplace challengers and documents how firms have reacted to survive (Ireland and Webb, 2007; Schmidt and Druehl, 2008; Agarwal, 2010; Sonsa *et al.*, 2010; Zott and Amit, 2010; Schneider and Speith, 2013; Zhu and Casadesus-Masanell, 2013; Nowag, 2016; Wirtz and Daiser, 2017; Andersson and Eriksson, 2018). An optimistic stance of competitive response strategy, affirms that DI can present itself as a catalyst for change and encourage incumbent firms to adopt new technologies themselves to counteract the arrival of new and disruptive competitors, leading to the incumbent firms transforming into the disruptors themselves (Schmidt and Druehl, 2008). For example, Riide in the UK, a consortium founded in 2015 by leading private hire operators, pursued this path. Investing over £3 million to upgrade its own technology and develop an e-hailing platform that rivalled Uber’s disruptive consumer app, additional features included the ability to still pay by cash<sup>10</sup>. In pivoting strategies, incumbent firms, such as the Riide group

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<sup>10</sup> <https://riide.co>

may regain, or even increase market share in the face of disruptive change, limiting the adverse impact disruptive innovators can impose on their business.

Similarly, Wirtz and Daiser (2017) sought to understand the mechanisms that firms can utilise when faced with the threat of DI – offering a positive outlook on competitive response efficacy. Findings revealed how the emergence of new technology can broaden and improve organisations by facilitating the streamlining of processes and thus, improve operational efficiency. In addition, macro-level market changes, such as national legislative amendments, for instance, the introduction of private hire subcontracting outside of London (an amendment to the Deregulation Act, 2015) or disruptive technological developments – increased smartphone usage and thus, e-hailing can reconfigure entire industries (ibid., 2017). As I shall reveal, the UK private hire and taxi sector is experiencing such paradigm shifts which trigger significant change for incumbent firms (ibid.).

The idea that firms can address the threat of DI, respond, and mould the threat into an opportunity is recognised by Andersson and Eriksson (2018). The authors argue that ‘well-established firms have been forced to realise that their conventional ways of doing business are failing and they need to find new ways to achieve competitive advantage’ (ibid., p.19). Zott and Amit (2010) exemplify this position via business model innovation – demonstrating that firms facing challenge from disruptors, can reshape their existing business model or implement an altogether new one. By doing so and undergoing change, it shows how firms must be agile and adapt rapidly (Sosna *et al.*, 2010), often finding ways to ‘re-deploy and use existing resources and capabilities to create new value offerings and value creation’ (Schneider and Spieth, 2013, p.4). Returning to the context of this thesis, many UK private hire firms have reconfigured their business models to adopt the percentage fee approach introduced by Uber. Here, firm revenue fluctuates given the reliance on a fixed percentage of driver earnings, rather

than a fixed weekly fee as per the traditional private hire fee structure, there is a clear value offering for the drivers through this more affordable ‘pay as you earn’ model (Nowag, 2016).

Prior research has focused on how early detection and recognition of opportunities (i.e., threats or opportunities) is vital to prevent disruptive firms from gaining sufficient momentum to threaten or overtake incumbent firms (Ireland and Webb, 2007). Early detection of a threat (or risk) is captured by entrepreneurial alertness when firms have an earlier, and therefore, superior insight into developments within the marketplace, permitting better identification of response strategies in combatting disruptive challengers (Kirzner, 1997; Tang, Kacmar and Busenitz, 2010). Suggested methods include horizon scanning, the practice of proactively tracking and monitoring changes and information, specifically new science and technology, that could impact an organisation within the business environment, (Brown, 2007; Cuhls, 2020). The importance of proactive and regular scanning of the market is viewed as an integral practice to ensure that potential threats and opportunities are captured early to allow adaptation to occur with minimal damage to the firm (Ireland, Hitt and Sirmon, 2003, p.982).

Applied to the context of this thesis, UK operators can scan and assess Uber’s launch and model in the United States, allowing insight into the imminent competition upon its arrival in the UK. Understanding how private hire operators have been, and continue to be, entrepreneurially alertness is key, and I will explore innovations that are being considered, measured, and acted upon by incumbent firms in the taxi industry, a central tenet of this research. Thus, reinforcing the importance of ‘alertness’ for firm survival in the literature.

As discussed, scanning the market, and adopting entrepreneurial alertness are methods that firms are incapable of doing alone, and rely on challenger firms for their own radical business model innovation, simply adapting and mimicking the innovations of others (Zhu and Casadesus-Masanell, 2013). Indeed, evidence shows how in markets where disruptive actors are present, there is a consequent net gain across the whole market, including growth for

incumbent firms who can capitalise well due to their financial stability, established brand and robust management (Gilbert, 2003).

Taking a similar stance, Agarwal *et al.*, (2010) advance Schumpeter's (1943) creative destruction theory, reconceptualising this as 'creative combustion'. Whereas Schumpeter outlines that in the creation of something new, the traditional *modus operandi* is terminated, the authors offer an alternative outlook and argue that because new market entrants are often structurally and financially less well-established than incumbents, when demand for the disruptive innovator product or service soars, the disruptive firm cannot optimally supply the demand (Agarwal *et al.*, 2010). As a result, an overspill occurs that cannot be catered for, such as customer demand for the product or service, which can be exploited by the incumbent firm if offering an equally attractive proposition to that of the disruptive competitor. However, incumbents possessing a well-established infrastructure are suggested as more experienced and able to cope with this overspill and gain from it (*ibid.*) Blueline Taxi's food delivery start-up 'Grab'<sup>11</sup>, serves as an example, where the opportunity was seized to service the overspill from a direct competitor, UberEATS.

Competitive responses have allowed the analysis of the relationship between challenger and incumbent, including subsequent business model and technological change (Ireland and Webb, 2007; Schmidt and Druehl, 2008; Agarwal *et al.*, 2010; Sonsa *et al.*, 2010; Zott and Amit, 2010; Schneider and Speith, 2013; Zhu and Casadesus-Masanell, 2013; Nowag, 2016; Wirtz and Daiser, 2017; Andersson and Eriksson, 2018). Yet, recent developments, such as Uber's acquisition of Autocab require investigation into how disruptors and incumbents work together in a 'frenemy' arrangement – simultaneously collaborative friends and sector enemies (Ezrachi and Stucke, 2019, p.151).

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<sup>11</sup> Press: <https://tinyurl.com/y2lhtson>  
Website: <https://www.grabnortheast.co.uk>

To summarise, I have reflected upon disruptive innovation and competitive response theory in the context of Uber's disruption of the private hire and taxi industry as a framework for understanding the dynamics between disruptors and incumbents in this market. Revisiting disruptive innovation literature to further develop and add my own concept of 'disruptive money' to highlight how money can, directly and indirectly, underpin disruption. Thus, I expand existing theories focused on technology and business model innovation (Christensen, 2018). My review of competitive response literature offers an optimistic perspective, demonstrating how incumbents can become disruptors themselves by harnessing their own unique selling points, whilst embracing technological advances. Mirroring this is the underpinning of Teece's (1997) dynamic capabilities in this thesis, whereby 'signature processes can provide a foundation for competitive advantage' (Teece, 2023, p.119) whilst also embracing new business models and technologies that are integral to digital transformation.

To advance my investigation, I now detail my methodological approach and data analysis protocols.

### **4.3 Methodology and Data Collection**

To explore this industry, the privileged, and unusual position of 'insider'<sup>12</sup> has allowed for the lived experience of operating and gaining unique access to data from an established professional network. As the 'insider', expert knowledge and insights within the taxi operating, licensing, system development, consulting, and policy aspects of the industry play a key role in the research design, collection, and analysis (Coffey, 1999; Wall, 2006). Therefore, principally deploying participant observation to reflect the degree of immersion of the 'insider' working within this context (Atkinson *et al.*, 2001; Hammersley and Atkinson, 2006). This approach is steered by Laurier's (2010) view that participant observation should focus predominantly on the participatory element rather than the observatory dimension of this

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<sup>12</sup> Lead author.

method. And, that there are no pre-set formal steps or specific social science requirements. So, a ‘how to’ approach is avoided. Instead, focusing on direct access to the phenomenon and the outcomes that arise from this setting through accompanying semi-structured interviews and documentary analysis, culminating in a participant observation commentary (See Table 4.5 in Appendix A). Thus, participant observation is implicit in all observations that follow.

Semi-structured interviews were used for six-cases to capture empirical knowledge and perspectives of the industry, recording observations of symbols, acts, behaviour, and situational experience, accompanied by extensive notes to record personal commentary as researcher-practitioner throughout the research process (See Table 4.5 in Appendix A) (Denzin and Lincoln, 2003; Scotland, 2012). The semi-structured interviews were conducted with representative participants from my professional network across the UK private hire and taxi industry (Denis *et al.* 2001). This included access to forty-seven managing directors, consultants, and owners, as well as other industry actors such as technology providers and industry commentators. For availability, and expertise of candidates, five key participants were selected. Specifically, the participants are a licensing advisor (PC1), freelance consultant (PC2), owner/operator (PC3), sustainable transport author and journalist (PC4) and a dispatching systems operator (PC5). Purposively selected, these five industry members broadly represent the UK private hire and taxi industry, because of the participants’ extensive industry knowledge, experience, and close relationship with me (see selection criteria below). This approach allowed us to develop ‘a depth of qualitative understanding rather than a breadth’ by interviewing a smaller, more expert sample (Boddy, 2016, p.430). As such, the evidence gained from these participants is not constrained to solely five interviews but forms part of a more substantial longitudinal professional relationship. The strength of this ongoing narrative and discourse has been formulated through years of relationship building where interactions have been captured, for example, through phone calls, joint attendance of social and

professional events, text messaging, LinkedIn interactions and informal conversations – indicative of the rare closeness not generally afforded to a researcher, and thus, the unique, robust and irreplicable nature of this data collection.

Additionally, the selected sample covers divergent perspectives from licensing regulation, sustainability, and ‘green’ credentials to the disruption of dispatching systems from physical to digital. Thus, the interviewees are participant observers and experts themselves given their experience of the emergence of Uber, the gig economy, and disruption first-hand and intimately involved in varied aspects of industry practice and processes (see Table 4.2 below).

Participant	Organisation	Trade Experience	Location
PC1	*** Licensing	Licensing Advisor (25+ years direct trade experience)	National
PC2	Freelance Consultant	Formerly Private Hire Operator and Transport for London (Policy) (40+ years direct trade experience)	National
PC3	***** Taxis	Private Hire Operator (35+ years direct trade experience)	North East
PC4	Freelance author and journalist	Cycling and Sustainable Transport (8+ years direct trade experience)	London
PC5	*****	Technology provider (dispatching platform, customer app and driver app) (12+ years direct trade experience)	Dublin
Lead co-author	***** Taxis	Third generation of family-ran UK Private Hire Operator, and current Finance Director. (9+ years experience)	North East

**Table 4.2:** Research Participants: a summary of purposive sample participants taking part in this study.

Each interview lasted approximately one to one and a half hours. Before the interview, an information sheet was reviewed and used to stimulate for further discussion post-interview. Parts of the interviews have been anonymised to safeguard the participant's identities.<sup>13</sup> Interviews were conducted online in March 2021 and structured as follows. A question sheet was circulated to the participants accompanied by a consent form which was signed and stored prior to the interview dates. Each interview was conducted via a one-to-one private format, and interviewees were explicitly assured of confidentiality and autonomy to answer questions openly and in confidence. The interviews were professionally transcribed with the objective of providing participants with maximum control over their individual information while collecting as much data as possible. Collectively, resulting in eight hours of recorded interviews. Data collection received ethical approval and stored digitally in password-protected files exclusively accessible to the researcher and supervisors. Participants could also withdraw their consent surrounding data usage and inclusion at any stage of the study.

The interviews with demographic questions regarding participant's position and tenure within the UK private hire and taxi industry (see Table 4.2). The subsequent questions focused on identifying key examples and characterisation of disruptive innovation and the impact of monetary investment in the UK private hire and taxi industry. I focused on understanding competitive response mechanisms (i.e., technological and business model adjustments) employed by incumbents. The complete set of questions is provided in Table 4.6 in Appendix A. Data coding and analysis procedures for the UK private hire and taxi industry were manually conducted, as follows.

Employing thematic analysis (Braun and Clarke, 2006) to organise and find insights in unstructured data, NVivo (v.12) software was utilised as a data warehouse tool for qualitative

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<sup>13</sup> For each quote from the interviews, ¶ identify the quote by the designation of the interviewee, see Table 4.2. Within the text ¶ follow the standard convention.



research (Woods, 2016). Following Strauss (1987) and Corbin and Strauss (2015), the data were analysed using a ‘process’ coding approach. This is a cyclical approach where the general meaning of the discussions conducted within the semi-structured interviews is initially categorised (initiation), structured around specific themes (focus) and then reviewed and encoded (axial coding). All material was examined to check that I had grasped what was significant to the interviewee (respondent validation; see also Charmaz, 2014). Subsequently, items were reduced into a more manageable form of themes or ‘sets’ (See Table 4.3 and 4.4 below) following Braun and Clarke’s (2006) six-phase guide of becoming familiar with the data, assigning initial codes to the data, searching for themes, reviewing themes and defining themes before finally writing up the data. To begin, transcripts were re-read and first impressions were informally noted. Codes were applied using open coding, meaning that I did not use ‘pre-set codes but developed and modified the codes as I worked through the coding process’ (Maguire and Delahunt, 2017, p.3355) vying between the data, theory and interpretation, considering bias to ensure the data was relevant to my research to justify being coded. The coded transcripts were then examined and themes that clearly fitted to my research questions and objectives emerged. To review these themes, I ensured each themes’ associated data contributed to the construction of the theme before ultimately defining a finalised set of themes and writing them up. The data was then triangulated via inter-researcher verification and with interviewees (Gioia, 2013).

**Table 4.3:** An example of the initial coding framework

Sample interview transcripts	Initial coding framework
<p>“But really when you look at companies that are subsidizing trips by up to 50%, you think that's not a business model, so it cannot be disruptive. And I think even if their target was to get rid of all the other companies and ended up as a dominant supplier, they'd failed miserably because they haven't done that.” (PC2)</p>	<ul style="list-style-type: none"> <li>• Trip subsidies</li> <li>• Business model viability</li> <li>• Disruptive innovation</li> <li>• Goal to remove competition</li> <li>• Intent to Monopolise</li> <li>• Failure to dominate the market</li> </ul>

<p>“I think what they've done is they've taken passengers who never really used taxis or private hire before. And the evidence for that, I think is London, you know, there were 50, 55,000 licensed private hire when Uber came into town within three years, that shot up to 110,000. So it doubled. Most incumbents were still in place. Most of the incumbents weren't doing very much less business than they were doing before. So what we have done is created their own customer pool. At the same time, TFL was confined in that there were less people using the tube and less people using the buses. And I would suggest that the margins there've taken some business away from incumbent suppliers, but in the mind, they're taken business away from public transport more. That would be my view and how they've done that, the disruption that they've caused to them, is they're subsidized trips by up to 50%.” (PC2)</p>	<ul style="list-style-type: none"> <li>• Creation of new user pool</li> <li>• Increase in licenced vehicles</li> <li>• Lack of detrimental impact on incumbents</li> <li>• Impact on public transport</li> <li>• Subsidising trips</li> </ul>
<p>“Well the disruptiveness from my personal opinion was the fact that they came in and they bought the work with VC money, their intention was to destroy the traditional taxi business by offering the public free rides, offering driver huge incentives. And that was unfair competition in my mind because they just simply could go out and buy, buy, buy, buy, and in the hope that people would collapse.” (PC3)</p>	<ul style="list-style-type: none"> <li>• Buying demand</li> <li>• Goal to remove competition</li> <li>• Subsidising trips</li> <li>• Driver Incentives</li> <li>• Unfair competition</li> <li>• VC Funding</li> </ul>
<p>“I just think they've broke the law in the UK. And they've simply have took no notice of the rules and regulations. You know, if you want to look at UK taxi law, the law states the invitation and the acceptance of a booking must be made by the operator at the licensed premises. And a number of things must be in place. Uber has always argued various things that they are not an operator, and they are purely a technology company and they had nothing to do with the booking, you know, and that was stated in the Canadian Supreme Court by one of their managers, that they had nothing to do with the booking and did not control the booking. Yet they come to the UK, they exercise that, and because of the size and the power of them, people became, certainly local authorities, because they were scared of the costs it would cause them.” (PC3)</p>	<ul style="list-style-type: none"> <li>• Non-compliance with UK law</li> <li>• Operator v Tech provider</li> <li>• Failure to legally challenge</li> <li>• Size and power of Uber</li> </ul>
<p>“Well, I mean, that's difficult. I think, what they have to push for is a level playing field. And really if the competition and markets authority was more active they could look at what is happening in particular towns and cities. But you know, I remember that it wasn't called a competition of the market authority. It was called monopolies and mergers commission or whatever. But at the time when the bus companies, which we mentioned earlier, Stagecoach and the likes were establishing sales in various markets there was something like 27 references to the monopolies commission at the time in various places. Darlington was the most famous, where I recall stagecoach actually ran free buses and squeezed out the existing local corporation player. So it needs the competition authorities to be very active. You know, if they're charging below cost, low below market price then clearly they should be stopped, but, you know, it's very difficult to police that, so they have to be on top of this. And I think undercutting their own prices would be cutting off their nose to spite</p>	<ul style="list-style-type: none"> <li>• Competitions and Markets Authority</li> <li>• Subsidising trips</li> <li>• Below market price</li> <li>• Goal to remove competition</li> </ul>

their face, frankly. But they are put in a very difficult position and all Uber is trying to do is to squeeze them out so that they can then establish a monopoly. It's just about that.” (PC4)	
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**Table 4.4:** An illustration of the final coded themes after refinement of the initial coding framework categories.

Final coding framework	Initial coding framework (examples from Table 3)
1. Financial Approach	<ul style="list-style-type: none"> <li>• Trip subsidies</li> <li>• Buying demand</li> <li>• Driver Incentives</li> <li>• VC Funding</li> </ul>
2. Regulatory Approach	<ul style="list-style-type: none"> <li>• Non-compliance with UK law</li> <li>• Operator v Tech provider</li> <li>• Failure to legally challenge</li> <li>• Size and power of Uber</li> <li>• Competitions and Markets Authority</li> <li>• Intent to Monopolise</li> </ul>
3. Competitive Response	<ul style="list-style-type: none"> <li>• Lack of detrimental impact on incumbents</li> <li>• Creation of new user pool</li> <li>• Increase in licenced vehicles</li> <li>• Business model viability</li> </ul>

The investigation also included gathering extensive secondary data and performing documentary analysis of the available resources for Uber in the UK private hire and taxi industry. Multiple sources included books, published case studies and academic articles on Uber or similar disruptive innovative firms, with a specific focus on the management of innovation and disruption (Banister and Shwanen, 2017; Cramer and Krueger, 2018; Dudley, Skok and Baker, 2018, Garud *et al.*, 2020). In addition, consulting an extensive library (See Table 4.1 in Appendix A) of Uber-related data sources encountered over a period of years

including legal documents, city council meeting/hearing minutes, Uber's website, pitch-deck, and IPO prospectus, as well as local and national news media, offering a multi-dimensional participant observation perspective (Hannzerz, 2003). Attention was paid to ensuring the authenticity, credibility, representativeness and meaning of the documentary sources (Bryman, 2004). Furthermore, consciously engaging in reflective practice in re-reading text to ensure that interpretation within the current context is reconstructed outside the original meaning of the author (Hodder, 2003). To do so, secondary data was also input into Nvivo, as per interview transcripts, and underwent the same six-phase thematic analysis. This assisted in identifying similar patterns throughout this data and strengthened contributions to my generation of themes, also mitigating reaching a saturation point using transcripts alone.

Adopting these methods is not without risk; for instance, the introduction of subjective bias may increase in interpreting what the insider observes, interprets, and subsequently records (Morse and Richards, 2002; Davies, 2008). For example, interviews can become subject to 'problems of bias, poor recall, and poor or inaccurate articulation' (Yin, 2003, p.93). Focusing on potential shortfalls in practice as both insider and subject, acknowledging how personal experiences and knowledge can impact on research design, discussion, and analysis, demanding in-depth reflection and consideration throughout. Yet, rather than detaching this rare access to insider knowledge and intimate familiarity with the UK private hire and taxi industry, I argue and accept the total immersion and 'in close contact' with the sector and people being researched as an added value to the study (Hannerz, 2003, p.202). Furthermore, the triangulation of data from different sources and using various methods, while engaging in reflection on the impact of pre-existing knowledge and experience of the industry on the data generation process (Dewalt and Dewalt, 2002). This method can act as a powerful tool for comparing and contrasting observational and interview data, highlighting behavioural inconsistencies (Hannerz, 2003).

Descriptions of the impact of disruptive innovation by Uber in the US literature and reports (e.g., Geradin, 2015; Cramer and Krueger, 2016; Dudley, Banister and Schwanen, 2017; Bensinger; 2021, Roose, 2021) show similarities in a comparable marketplace context. Nevertheless, given the limited number of interviews (5), concerns about credibility may arise. In justifying this standpoint, the intimate positioning of the research to the industry and the well-developed, longitudinal relationship with participants allowed for an opening up and willingness to talk and a deep understanding of the phenomena (Marhsall, 2013). Given that, exemplified by Alexander Flemming's discovery of penicillin, 'single case studies can have findings which can be generalised from and implications which are global in importance' (Boddy, 2016, p.428), therefore, the sample size provides reliable and trustworthy findings for the scope and exploratory nature of this study (Morse, 2000).

Empirical insights from industry are now presented. To further enhance the insights from the findings, within the discussion and findings section below, descriptions of the participants' views and my own reflections in my professional capacity are included.

#### **4.4 Findings and Discussions**

Pivotal to this study is foregrounding the participant observation in a more narrative style of writing, surrendering the objectivist voice of this paper (Webb, 1992; Schultz 2000). First, both a chronological and biographical defining of the case is presented. Second, findings are revealed in a way that reflects the knowledge-building journey of the case. Finally, the case and findings are presented around key research questions which sit under an overarching research aim (Stake, 1995). Two key themes have emerged: Uber's cavalier approach to UK regulatory and financial regulation and Uber's impact on the traditional trade and the competitive response of incumbents.

#### 4.4.1 Uber's Regulatory and Financial Approach

Headquartered in San Francisco, Uber has raised a total of \$25.2B since its inception, acquiring thirteen entities in the process, including the taxi dispatching system Autocab<sup>14</sup>. The firm entered the UK market in 2012 by launching in London but has not expanded in the UK since 2017.

When discussing how Uber employs disruptive innovation theory to challenge the UK private hire and taxi market, all participants (see Table 4.2 in Appendix A) cite Uber's access to significant levels of investment, financial backing (disruptive monies), and their approach to regulatory and legislative frameworks, perceived as central to their degree of disruption within the UK private hire and taxi market, more so than employing disruptive technology. These key themes have similarly emerged in the Uber Files leak of 124,000 confidential documents to The Guardian<sup>15</sup>, which will be used as supporting evidence in this discussion.

Building on existing research, specifically Christensen's (2018) view that Uber is not a disruptive innovator in the United States, participants support this stance, evaluating Uber's practices across the UK industry:

'I actually think that they're not quite as disruptive as they think they are. So, this whole idea that Uber is a game changer I think is a mistake.'

*(PC4, Author and journalist, 8+ years' experience)*

'With Uber, it's the same vehicles, same cars, same drivers, same costs. I don't see that any of the costs were taken out. I don't see anything was done any differently. The incumbents are still in business and most incumbents are doing pretty much the same as they were doing before Uber and Co rocked up.'

*(PC2, Freelance Consultant 40+ years' experience)*

Current knowledge considers the sustainability, practicality, and legitimacy of the disruptive firm's financial model, often reliant on venture capital and investor funds, compared to incumbent businesses (Roose, 2021) who, referring back to my application of Teece's

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<sup>14</sup> Uber Technologies, Inc. (2020). 2020 Annual Report. <https://investor.uber.com/annual-reports/index.cfm>

<sup>15</sup> The Guardian (2017). Uber Files: 124,000 confidential documents leaked.

<https://www.theguardian.com/technology/2017/jul/15/uber-files-124000-confidential-documents-leaked>

dynamic capabilities to support my Family Business Innovation Model, operate sustainable business models that ‘provide a customer solution that can support a price high enough to cover all costs and yield profit that is at least sufficient to support the business and its growth’ (Teece, 2023, p.121). From an economic perspective, participants commented on Uber’s access to and use of funds to disrupt the market:

‘They are simply using venture capital funds to buy their way through markets.’  
*(PC1, Licensing Advisor, 25+ years’ experience)*

‘Well, the disruptiveness from my personal opinion was the fact that they came in and they bought the work.’  
*(PC3, Private Hire Operator, 35+ years’ experience)*

‘They are a company subsidising trips by up to 50%...that's not a business model, so it cannot be disruptive. And I think even if their target was to get rid of all the other companies and end up as a dominant supplier, they've failed miserably because they haven't done that.’  
*(PC2, Freelance Consultant 40+ years’ experience)*

The following excerpts highlight a gap in the extant literature since disruptive innovation theory does not address the role of politicking and influence – all of which are raised by participants as key themes that together constitute Uber’s regulatory and financial approach. From a regulatory perspective, the participants underlined Uber’s disregard for regulatory compliance, closely linked to their politicking with the UK government:

‘I have been in the interesting situation of speaking to the then [REDACTED] as it so happens, with regard to Uber and his attitude was, don't care. Don't care what they're evading as far as tax is concerned, they generate revenue. So, certainly Uber was seen to have close links, indirect links to the parties and even the [REDACTED – SENIOR POLITICIAN] previously.’  
*(PC1, Licensing Advisor, 25+ years’ experience)*

‘What I think is unfair is how these startup firms have bypassed UK Private Hire and Taxi law and never been properly penalised for it. We’ve not had a level playing field, but they keep getting their licence despite historical breaches that, in my mind, warrant permanent revocation, regardless of what measures they put in place for moving forward. They’ve continuously broken laws, simple, and it’s allowed them to get ahead of the pack, it’s unfair. The courts have then in some cases not acted and a lot of that has been down to connections with people in high places.’  
*(PC3, Private Hire Operator, 35+ years’ experience)*

The above findings reveal how, according to industry experts, in line with my own experience and the Uber Files leak<sup>16</sup>, Uber's strategy to build legitimacy and socio-political acceptance in the UK private hire and taxi market mirrored their US-based practices by creating international strategic comparisons (Garud, 2020).

In the US, Uber's initial pitch deck included no reference to regulatory compliance and its activities, such as not seeking permission from regulatory bodies to enter markets, were indicative of a venture that attempted to influence which laws became applicable so as not to compromise its business model (Pollman and Barry, 2016; Garud *et al.*, 2020).

'We've recently seen that Uber are to settle a £615 tax bill with HMRC for unpaid VAT which, in reality, was less than the £1billion that was initially estimated. So, once again, serious questions remain unanswered as to why HMRC have settled this bill for a payment significantly lower than the expected liability. But, this bill, nevertheless, is evidence of how Uber operated in an uncompliant way, disregarding HMRC's tax laws, hoping they could get away with it until they were finally brought to the courts to be challenged by a non-for-profit that has a mission to uphold democracy and equality through law,'

*(PC2, Freelance Consultant 40+ years' experience)*

Revealed in The Guardian's recently leaked 'Uber Files', Uber's global head of communications admitted that Uber has 'problems because, well, we're f\*\*king illegal' (Davies *et al.*, 2022, language original), strengthening the participants' claims by offering insight from within the firm itself. The firm also hired President Obama's former campaign manager to direct global policy and political affairs (Garud *et al.* 2020), targeting global heads of state to 'infuse an aura of legitimacy around a company that was known for openly flouting regulations and laws' and 'leverage the US government to support international business' (Davies *et al.*, 2022)

In the face of regulatory challenges in courts of law, such as the TfL revocation of its licence, Uber continued to operate in the UK market with regulatory ambivalence – relying on

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<sup>16</sup> The Guardian (2017). Uber Files: 124,000 confidential documents leaked.  
<https://www.theguardian.com/technology/2017/jul/15/uber-files-124000-confidential-documents-leaked>



tactics such as using a ‘kill switch’ to deny police access to and delete, potentially incriminating data during raids. Additionally, as indicated in the findings and the Uber Files, Uber’s regulatory ambivalence was aided by its harnessing of relationships with influential decision-makers in positions of power to evade regulatory responsibility and consequences. For example, in the UK, there is conflict and disagreement between UK decision-makers on Uber and how the firm attempted to influence key stakeholders to shape policy in its favour:

‘I mean, culturally they’ve never wanted to be involved in regulated industry. They’ve always wanted to play by their own rules and do what they want to do and do it their way. I think it’s soft corruption. I mean, you know, I had some privileged information at the time. There was literally screaming matches between [REDACTED – SENIOR POLITICIAN] and [REDACTED – SENIOR POLITICIAN] about what they should do about Uber. So, they had massive political backing.’

*(PC2, Freelance Consultant 40+ years’ experience)*

Mirroring PC1’s contribution to this discussion with regard to the need for political support, The Guardian also revealed internal communications revealing that because the Mayor of London denounced the ‘brash attitudes of these gigantic American internet companies and the way they think they can come over and disrupt the market’ (Davies *et al.*, 2022), Uber hired an influential lobbyist, close friend to the UK Prime Minister, in order gain access to, and positively influence, the UK political establishment less in favour of the firm<sup>17</sup>. Like its strategy in the US, this close connection to government figures only ‘increased its window of opportunity to generate cognitive legitimacy for its service among riders and drivers’ (Garud *et al.*, 2020, p.8) – triggering competition implications for incumbent firms.

‘It must be difficult for traditional operators to see this company, which clearly operates in an illegitimate way, enter the UK as a market entrant but immediately have the support of senior politicians when the same politicians had never engaged with, nor took a remote interest in the taxi trade. So, to get praise and support from all corners of government for their climate plans, their job creation plans and the rest only fuelled the public’s positive perception of Uber off the back of which they featured in TV series, music and movies which undoubtedly encouraged uptake of their services. Only years down the line are the public beginning to become more conscious of the firm’s not-so-good operating practices, but by this point, they’ve already been let in and given time to establish themselves’

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<sup>17</sup> <https://www.theguardian.com/news/2022/jul/11/we-needed-dave-george-lean-on-boris-uber-battle-for-london>

*(PC4, Author and journalist, 8+ years' experience)*

From an economic perspective, participants point to Uber's policy of using incentives to acquire both users and drivers as a critical strategy to develop legitimacy in the market. By harnessing disruptive money to subsidise end-consumer pricing, mimicking 'a perceived competitive price rather than a true market price' (Ezrachi and Stucke, 2019, p.51), a monopolistic tendency is demonstrated, which has competition law implications.

'How could we compete with the scale of the discounts and free rides they were offering? It's cost them millions, if not billions. They were even offering drivers £500 if they completed a certain number of jobs on their platform. It persuaded a lot of drivers to jump ship and go work for them, get the bonus, and in some cases come back, but many stayed working their platform. We'd built a business by attracting customers through a good service that we charged for, and it allowed us to make money. Profit. It's easy to get customers when you're giving something away for free but someone has to pick up that bill eventually, and that's why they've never made a profit. They spend so much to grow but don't make enough to cover those costs. In many cases, customers then started looking at us as if we were expensive because we were simply charging a fair rate. They got used to these ultra-low fares and expected that across the board... so I think it was something Uber tried to also squeeze us out of the market knowing we couldn't rival those discounts and that people would eventually stop wanting to pay us if they could use Uber for far less.'

*(PC3, Private Hire Operator, 35+ years' experience)*

To summarise, the participants question how a firm can be labelled as truly disruptive if it cannot demonstrate regulatory-abiding practice and traditional business fundamentals, such as a profitable business model, aligning with Teece's (1997) view that a long-term profitable and sustainable business model is integral to sustaining competitive advantage. With driver and user growth strategies fuelled by significant financial subsidies, Uber's ability to operate with a sustainable and profitable business model beyond this financial investment remains to be seen (Wigan, 2021). As such, participants argue that Uber's impact is driven by vast sums of VC investment, or 'disruptive money' rather than acquiring market share through disruptive innovation. Furthermore, Uber's regulatory approach poses the question of how firms can disrupt an industry without adhering to legislative frameworks and whether their

growth and socio-political acceptance were permitted through lawbreaking and lobbying rather than true application of dynamic capabilities to drive innovation.

Whereas Christensen's (1997, 2003, 2015, 2018) research focuses on the modes of innovation businesses employ to determine disruptiveness, my study reveals how industry experts identify alternative areas that require focus, stemming from practical industry insights. The financial structure, the longer-term viability of a firm's business model and its adherence to legal requirements need to be addressed further in innovation theory. The challenge is whether disruptive firms are truly disruptive innovators or, conversely, evading corporate responsibilities. The latter requires consideration of regulatory reform to ensure a fair, and competitive market.

#### **4.4.2 Uber's Impact on Incumbents and Competitive Response**

Although UK-based private hire firms were aware of Uber's presence in the United States, all participants agreed that UK operators, including my firm, were ill-prepared to combat the threat of a new market entrant:

'I think they were very reactive. I don't think firms were expecting them to come here and if they did, not to have any success. So, they were very reactive.'

*(PC2, Freelance Consultant 40+ years' experience)*

'Our CEO was speaking at US trade shows saying this is coming make no mistake, this is coming and almost everybody disagreed. They weren't prepared for it. They didn't see it coming. They made no advanced plans and we're just completely reactive to it.'

*(PC5, Technology Provider, 12+ years' experience)*

Despite this lack of entrepreneurial alertness (Kirzner, 1997; Ireland, Hitt and Simron, 2003; Brown, 2007; Ireland and Webb, 2007), the consensus among participants is that incumbent firms were able to combat and positively benefit from the arrival of Uber. While previous research has focused on finding new ways to achieve competitive advantage and moving away from conventional methods of business to reshape and remodel their organisation *to survive* (Zott and Amit, 2010; Sosna, 2010; Schneider and Spieth, 2013; Andersson and Eriksson, 2018), practical insights from participants highlight that incumbent firms were able

to successfully harness and capitalise on their traditional business offerings as unique selling points to retain their position as market leaders. This is similarly underlined through my application of Teece's (1997) framework for dynamic capabilities through which he states that these historical practices can provide a foundation for competitive advantage 'provided that management doesn't allow the advantages of this history to stagnate and become maladapted as the business environment changes' (Teece, 2023, p.119).

As evidenced below, in the case of the UK private hire and taxi market, traditional firms benefitted from their traditional booking methods (call centres), ability to accept cash payments combined with their focus on human interaction and brand loyalty. For example, all benefits Uber were unable to offer their consumers (both end-passengers and drivers):

'I think on one side the good taxi and private hire companies looked at how they were different to Uber and how they could focus on that. So, you know, in some cases they realised that they had a robust call centre, that they were actually speaking with their customers quite a bit.'

*(PC5, Technology Provider, 12+ years' experience)*

'The customers wanted to pay cash. Uber didn't accept cash.'

*(PC2, Freelance Consultant, 40+ years' experience)*

'Their technology was great, but there was no human intervention and no human service.'

*(PC3, Private Hire Operator, 35+ years' experience)*

'I think there's a lot of brand loyalty once you get outside of London.'

*(PC2, Freelance Consultant 40+ years' experience)*

Although participants identified the lack of entrepreneurial alertness in advance of Uber's arrival in the UK market, active business mapping was undertaken following Uber's launch - to identify the key strengths of incumbent operators and, specifically, maximise traditional unique selling points. Notably, having observed Uber's city-centric model in other cities, incumbent operators harnessed their fleet capacity to expand service offerings and technology, venturing into more rural areas where traditional booking methods were favoured, and, fundamentally, where Uber did not have operators' licences, nor the necessary infrastructure to suitably supply demand and customer needs. Given this strategic success, it is

highlighted that traditional firms can continue to succeed by the strength of their traditional offering.

Participants further remarked on how incumbent firms upgraded their technology as part of a digital strategy to better compete with Uber's app in the UK market—reflecting Schmidt and Druehl's (2008) competitive response theory. This example was supported and reinforced by participants:

'So, I think they've, you know, encouraged incumbents to utilise technology more. It has shown them that passengers and users can benefit from feature-rich technology, making historically laborious tasks far easier at the touch of a button. It aligns with what we are seeing across industries with increased automation. Not only does this benefit the end consumer, but commercially, investing in technology can save the business money in the long-run too, such as reducing the need for 24/7 manned call centres when customers can now send direct contract requests to drivers without having to go via a human operated call centre, which comes at a cost to the firm – and takes more time!'

*(PC2, Freelance Consultant 40+ years' experience)*

'We have certainly added to our app since because we decided to consolidate with other operators around the UK and we joint funded an app that was going to be of equal quality as Uber's and it took some time to do that. We had used app-based technology before Uber arrived in the UK for booking fares, but their app did things that ours couldn't – especially on their driver app – and that really made us up our game. Our drivers can now manage their full business on their driver app and in the past, it was really just used to accept journey requests. So, it's developed a lot.'

*(PC3, Private Hire Operator, 35+ years' experience)*

Finally, finding support for Agarwal *et al.*'s (2010) creative combustion theory in that incumbents have benefitted from disruptive challengers in the industry. As the number of licenced private hire drivers in London increased by 25.9% in the first three years after Uber's initial launch in the capital<sup>18</sup> (compared to 1.5% growth of taxis in the same period), indicative of their success in creating a new passenger market and consequently the need for drivers, incumbent firms benefitted from the operational changes by supplying the passengers not serviced by the market entrants.

'We have over 30,000 vehicles operating on our dispatching platform, and we identified some very clear trends after Uber's launch in the UK. Generally speaking, most major fleets saw an increase in the number of journeys that they were completing. In some ways, this

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<sup>18</sup> <https://www.theguardian.com/news/datablog/2015/aug/25/private-hire-vehicles-licensed-uber-london>

could be attributed to the fact Uber had created an increased demand for their service that they then could not fulfil, leading passengers to migrate to other firms that had the capacity. Or, perhaps Uber's PR campaigns encouraged more people to become a taxi driver, bring more people into the industry, and in turn, increasing all firms' ability to cover work with more drivers on their networks as these drivers cycled between fleets. It's a complex picture but it's more than plausible.'

*(PC5, Technology Provider, 12+ years' experience)*

To conclude, the actualities of this industry reveal a partial alignment with competitive response theory but expose new aspects to consider. Simply put, by primarily persisting with their traditional business models and advocating this as a unique selling point, in contrast to existing literature (Zott and Amit, 2010; Sosna *et al.*, 2010; Schneider and Spieth, 2013; Andersson and Eriksson, 2018), incumbent firms have not been usurped by a disruptive firm and have retained their position as market leaders, specifically beyond London. Again, this view aligns with Teece's (1997) dynamic capabilities framework that I use to guide my study, in that managers of incumbent firms must be aware of new technologies and prepare to adopt new business models, but remain conscious that it is the historically rooted signature processes that are difficult for competitors to imitate.

#### **4.4.3 Professional Reflection**

I note Teece's (1997) focus on the role of top management's entrepreneurial and leadership skills in generating and sustaining dynamic capabilities. Therefore, to garner such insight, and to also develop the 'contextual richness' (Miles and Huberman, 1994, p. 83) of the findings, this autoethnographic narrative describes the social context of my senior management position in the industry and, thus, an introspective reflection of the above findings is offered.

To create this autoethnographic reflection, interview transcripts and data sources were revisited and considered against my own lived experience combined with theoretical insights. By doing so (as presented in Table 4.5, see Appendix A), it became apparent that my experience principally aligns with the thoughts and conclusions of my participants, the policy implications they suggest, and demonstrates how real-life management in this specific context was tested

again seminal literature relevant to this study (Christensen,1997) and overarching thesis (Teece, 1997).

First, as Finance Director, I recognised that competing with Uber's VC-backed subsidisation model, outlined by participants, could not be replicated – given that it would lead to depleted financial resources and eventually a suppressed value in terms of quality-of-service. For example, the inability to fund vehicle upgrades. Thus, the decision to pursue a traditional pricing model carried risk, as competitor's subsidisation could have enticed both passengers and drivers away from my firm. However, it became clear that due to Uber's surge feature, whereby fares increase based on a supply-demand imbalance, as well as their commission-based driver fee model, the traditional fixed-fee model was more attractive to many customers and drivers, who published concerns over social media.<sup>19</sup> Overall, taking this evidence into account, I conducted financial simulations and found that the sum of monies needed to subsidise the firms' fares to the same extent as Uber's model was unfeasible and, therefore, retained the traditional model to remain financially stable and avoid substantial borrowing. Core to my Family Business Innovation model, this process is illustrative of Teece's (2012) entrepreneurial management, which is competence 'critical for a business to possess dynamic capabilities' (ibid., p.1398) and 'involves calibrating opportunities, diagnosing threats, directing (and redirecting) resources according to a policy or plan of action, and possible also reshaping organizational structures and systems so that they create and address technological opportunities and competitive threats' (ibid.)

Second, my reflections underline Uber's regulatory approach. As the only operator in the region to be licenced by all local authorities, my firm unequivocally understands the necessity and importance of regulatory compliance to ensure transparency, protect customers' rights and ensure fair competition (OECD, 2011). It is noteworthy that Uber's inability to

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<sup>19</sup> [shorturl.at/qsxNP](http://shorturl.at/qsxNP)

comply with the complexities and nuances of UK taxi and private hire legislation, as highlighted in the legal proceedings in Table 4.1 (See Appendix A), has been beneficial in limiting their ability to obtain licences to operate. Consequently, restricting the firm's growth into some of my key operational areas, and is exemplary of how a mismatch between new digital business models and regulation can cause unintentional consequences (Reed, 2007). Conversely, the findings develop on Garud's (2020) US-focused analysis and in agreement with participants and the recent Uber Files leak, Uber was able to garner socio-political acceptance despite regulatory breaches through politicking, law-breaking, and influence. As a result, I put forward the participants' clear calls for a complete and impartial, current and retrospective, investigation of Uber's UK activity by the UK government, its Competition and Market's authority and local authorities.

Third, the participants' observations of competitive response reflect effective competitive response literature focusing on traditional modes of operating (Birkinshaw, 2022), demonstrated through the case of WH Smith, the UK retailer who doubled down on their traditional bricks-and-mortar retail business rather than entering the digital online marketplace. This approach was also evidenced in my decision-making processes and subsequent action as an incumbent in the UK private hire and taxi market. Fundamentally, participants underlined the strength of traditional operating modes that Uber did not offer telephone and web-booking, prebooking, acceptance of cash payment, bespoke corporate travel, operating in rural areas and personal customer service. For my firm, I identified these traditional offerings as profitable, unique selling points, which increased my firm's service offering, as well as servicing customers who preferred these tools (i.e., telephone booking) and booking facilities (e.g., pre-booking) (Gratton and Ghoshal, 2005; Kraus *et al.*, 2021). In other words, my strategic decision-making processes focused on offering services and facilitating bookings in a way that Uber could not compete with (it does not operate with call centres nor accommodates pre-



bookings) – giving a competitive advantage by means of differentiation, profitability and sustainability (Porter, 1985; Teece, 1997, 2007, 2012, 2023).

Whilst endorsing traditional operating methods, I also support the digitalisation of my firm's operations in advance of Uber's arrival in my firm's operational region. In the marketplace, incumbents were using digital technologies to accept and manage bookings before the introduction of Uber, such as taxi booking apps that customers readily used<sup>20</sup>. Despite this, I believe that there is a misconception that Uber was the creator of 'app-bookings' and was revolutionary with this development. However, because of Uber, I did reflect and decide to continually invest in technology to advance my firm's offer and remain competitive. Thus, my firm and a series of other national operators embarked on a joint-venture project to combine knowledge and funds to achieve this<sup>21</sup>. To demonstrate the importance of technology to the firm's operation, the implementation of the e-hailing app platform today affords the position as the region's market leader and completes over 50% of the total bookings via app. Noteworthy is that Uber's emergence also helped bolster the strength of the firm's digital offering, as Uber helped drive user acquisition and socio-technological acceptance of booking taxis by app. In line with Agarwal *et al.*'s (2010) creative combustion theory, I have witnessed new user acquisition on this platform increase, leading to over 60% automation of bookings.

To conclude, reflecting on my experience and observations in devising my firm's competitive response strategy and actions following Uber's entry into the marketplace, and despite its claims and aspiration to dominate the sector, my firm continues as an industry leader in fleet size, geographical scope and journey completion across the region. Furthermore, underlining the success is pursuing the existing business model and traditional modes of operating, as well as engaging in partial technological transformation, exemplifying

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<sup>20</sup> See Figure 4.1 in Appendix

<sup>21</sup> [www.riide.co](http://www.riide.co)

ambidexterity (O'Reilly and Tushman, 2004). In doing so, demonstrating the applicability of Teece's (1997, 2007, 2012, 2023) dynamic capabilities framework in terms of harnessing conventional business practices and models, encouraging entrepreneurial thinking at managerial level, and the allocation of resources to enable and enact on digital transformation.

#### **4.5 Concluding Remarks**

To improve the conceptions and understanding of disruptive innovation and money across the UK private hire and taxi industry, I investigated the extent to which Uber has disrupted the UK private hire and taxi trade through innovative practice and offer new insights through the context of the UK industry. Furthermore, broadening the scope to encompass Uber's impact across the national level landscape, beyond London.

To do so, this chapter harnesses the views of key industry insiders to analyse recent industry changes and incumbent competitive responses. Through the unique position of participant observer and 'insider' (Coffey, 1999; Hannerz, 2003; Wall, 2006; Clarke and Braun, 2014), a novel contribution to this area of research was possible by drawing on professional experience, networks, and my lived experience of operating within the UK private hire and taxi trade thus, best positioned to reflect and inform key contributions and conduct expert analysis.

In addition to this unique position, access to expert data and insights, this study offers an alternative analysis of Uber as a disruptive innovator, contextualising it to the UK, in contrast to prior research, which focuses exclusively on the US market, or London alone – ignoring the firm's activity across the rest of the UK.

The investigation reveals that despite the e-hailing challenger's impact on the industry, Uber's operation in the UK does not align with the theoretical concepts of disruptive innovators (Christensen, 1997; Christensen and Raynor, 2003; Markides, 2006; Christensen, 2018). Instead, Uber's growth is premised upon substantial subsidies and investment—supporting the

contribution of disruptive money as a new dimension of innovation in the digital era and regulatory disregard which can spur further empirical enquiry.

Consequently, in competitive response to new market entrants, incumbent firms have continued to use traditional operating methods, such as telephone bookings, cash payments for fares and fixed-rate driver rental business models. Thus, incumbents have maintained their position as market leaders in many major cities beyond London – evidencing how, in practice, traditional operating methods and management strategy have succeeded in the face of ‘innovation’, albeit hybrid operations now offer cash and digital payment options simultaneously. Although, incumbents have undergone a certain degree of digital transformation, pivoting their operations and models in view of entrants to the sector much of this digitalisation, such as the adoption of e-hailing apps, existed and operated in the market prior to Uber’s entry into this sector (Birkinshaw, 2022). Contrary to common belief, Uber did not pioneer taxi booking apps, and taxi companies did not digitalise in response to Uber, although the pace of transformation increased. Despite this change, I acknowledge that sustaining technological innovations were required by incumbents to remain competitive in this digital marketplace. But, overall, offering an alternative perspective to existing disruptive innovation and competitive response theory, which favours disruptive innovators and their new operating practices over incumbents and incumbent-led innovation (Gilbert *et al.*, 2012; Christensen, Raynor and McDonald, 2015; Andersson and Eriksson, 2018).

Given the changes in this industry to date, and the future innovations that industry experts foresee, such as Mobility as a Service (MaaS) (Callegati *et al.*, 2017; Smith, Sochor and Karlsson, 2018; Abe, 2019), this study demonstrates how firms can pivot their business models and strategies to compete in current and future disruptive and digital landscapes. Although future innovations may be predictable, such as MaaS, autonomy and electric vehicles, little is known about how these new ideas can be implemented in practice and at scale.

Similarly, how businesses in this industry will model themselves to accommodate and profit from such technologies.

Likewise, highlighting an important practical and policy implication for industry players, such as noting Transport for London's decision to revoke Uber's operator's licence on multiple occasions. And, as the evidence suggests, the need for a further national review of Uber's activity in the UK private hire and taxi industry by the UK government, its Competition and Markets Authority and local authorities to better understand the impact of historical regulatory breaches and the use of 'disruptive money' on incumbent firms. The findings demonstrate that innovation rhetoric applied to Uber should not be 'accepted without question to be a positive good' (Bishop and Suchman, 2000, p.331). Rather, that their strategy to build legitimacy and socio-political acceptance in the UK private hire and taxi market, which mirrored their US-based practices, is not a result of disruptive innovation. I posit that it is premised on the use of disruptive money conceptualised in this research, referring to both its inherent financial value allowing subsidisation and the 'indirect application of financial resources to strategic choices' (Aplin and Hegarty, 1980), in the form of inducement, coercion, persuasion and obligation (Parsons, 1969). The idea that both Uber's driver and user growth strategies relied on significant financial subsidies, rather than innovation, and that their ability to operate with a sustainable and profitable business model remains to be seen, and therefore, raises implications for achieving a long-term profit-generating business model (Wigan, 2021). The Uber Files should be used as a reference point for the firms' history of politicking and coercion, which was another crucial enabler of the firms' growth. Furthermore, illustrating strategic management implications for managers working in disrupted industries, with real-life actions, that form part of broader competitive response strategies, signalling how effective management can be successfully implemented to combat challengers.

Although the participant observer role afforded privileged access to data and perspectives, the opportunity for bias presented itself as a potential limitation. However, the reflective practices and considerations outlined in the methodology gives qualitative rigour to my approach and, thus, findings (Gioia, 2013). Future research could draw on these findings in capturing the impact of other e-hailing operators in the UK private hire and taxi Market, such as but not exclusive to, Ola, Bolt and FreeNow to determine any differentiation between e-hailing operations. Additionally, insights could be enhanced by conducting a comparative analysis of the UK industry with other European and global markets (Dube, 2015; Surie and Koduganti, 2016; Kashyap and Bhatia, 2018; Liu and Kim, 2018, Finck, 2018) as well as investigating future digital technological innovations and investment trends in this industry.

## **Chapter Five – Study Two: The Transition to E-Taxis. How the UK private hire market has become a Forgotten Industry in the UK government’s Net Zero policy.**

### **5.1 Introduction**

The UK private hire and taxi industry is undergoing significant change as both local and national government target this key sector to decarbonise as part of UK climate policy. The UK government's flagship decarbonisation policy, Net Zero Strategy: Build back Stronger<sup>22</sup> (NZS), states that domestic transport contributes most to the UK’s greenhouse gas emissions, with 23% generated by this sector alone and 55% of this attributable to passenger vehicles. To combat this, the UK government has stated that removing emissions from passenger-carrying road transport is a priority and therefore has committed to legislation ensuring that no new petrol and diesel cars are to be sold beyond 2035. The UK private hire and taxi market relies on passenger-carrying vehicles to trade, and therefore is subject to a significant and complex transition to electric vehicles by this deadline. The government’s NZS did not include the words ‘taxi’ or ‘private hire’, nor a roadmap or framework for the industry, in its policy. Consequently, my premise is that the UK private hire industry is a ‘forgotten industry’ – in essence, its exemption from NZS demonstrates a disregard for, and lack of understanding of the industry.

Using Alford’s (1975, p.xiii) ‘strategically structured interests’ conceptual framework, I uncover this disjoint between government policy and the UK private hire and taxi industry. Operators question the viability and practicality of the UK government’s policy and challenge its implications, whilst the government remains committed to the climate change remit set out at the Conference of Parties<sup>23</sup> (COP). Previous research has focused on the technical analysis

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<sup>22</sup>UK government. (2021). Net Zero Strategy: Build back Greener. [Policy document]. Online: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1033990/net-zero-strategy-beis.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf)

<sup>23</sup> <https://ukcop26.org/transport/>

of e-taxis, my study offers new insights and makes a key contribution to this research by incorporating a strategic management perspective, discussing business model implications for UK private hire and taxi firms and stakeholder interests. Accordingly, I pose two questions: (a) In this industry context, whose interests are being served by the current UK government's Net Zero Strategy? (b) What role can Action Research play in designing a viable alternative?

To inform such questions, real-world phenomena is collected via personal, lived experiences from experts embedded within the industry through action research – using interviews, complex documents and participant observation methods. Unique practitioner insights are revealed within the operational structure of a UK private hire firm and make a novel contribution using insider<sup>24</sup> access to 8.7 million sets of private hire journey data, previously unavailable to the government and academics. This privileged and unusual position as an insider-researcher extends further to unique access to data from an established professional network with expert knowledge in taxi operating, licensing, system development, consulting, and policy aspects of the industry (Wall, 2006). Furthermore, benefiting from close contact with the research subject, allowing a high degree of immersion (Clarke and Braun, 2014).

The remainder of this chapter is structured as follows: first, outlining the concept of Net Zero and the role of COP, as well as the UK government's own net zero policy. Second, identifying global electric taxi developments to provide comparative case studies. Third, discussing the interaction between industry and government for effective policy-making before finally contributing to the broader literature on this topic through an insider-led, strategy management focused action research approach from the UK market, underpinned by my overarching theoretical framework – Teece's dynamic capabilities (1997). Thus, providing a contribution to literature, and offering implications for industry stakeholders. For literature, I

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<sup>24</sup> Lead author

apply both Alford (1975) and Teece (1997) to new contexts, generating new insights. For stakeholders, the unique insights from this work can further inform the debate regarding effectively achieving net zero in line with national policy and COP commitments - by presenting business model considerations to better inform policymakers, operators, vehicle manufacturers and service users of the implications of taxi electrification in the UK.

## **5.2 Background**

### **5.2.1 Net Zero and Conference of Parties (COP)**

Global leaders have voiced their ambition to limit global warming by radically transforming energy systems and usage to achieve ‘net zero’ greenhouse gas emissions. Net zero is reached by ‘balancing any remaining CO<sub>2</sub> emissions by CO<sub>2</sub> removals of exactly the same amount’ (Rogelj *et al.*, 2015, p.3). Initiated by the United Nations (UN), the Conference of Parties, referred to as COP, is an annual summit of global leaders to discuss climate policy and advance the climate change commitments of the 2015 Paris Agreement and implement the UN Framework Convention on Climate Change (UNFCCC). In 2023, the most recent and 28<sup>th</sup> annual summit (COP28) was hosted by the United Arab Emirates.

Although nearly 200 nations agreed to adopt a ‘Climate Pact’ to push decarbonisation, the overall roadmap of achieving global net zero carbon by mid-century remains unclear (Arora and Mishra, 2021) and ‘a considerable number of countries have yet to develop detailed strategies to fulfil their net-zero pledges’ (Li *et al.*, 2023, p1). Established research highlights not only the inadequate scope and implementation of climate commitments (den Elzen *et al.*, 2019), but that even the most ambitious climate net zero policies will likely fall short of achieving this objective. Recent analysis (Lit *et al.*, 2023) of national climate commitments and actions have demonstrated that current gaps in policy measures and outcomes, if left unresolved, will lead to a failure in limiting global warming to 1.5C by the end of the century. In the UK, the Climate Change Committee’s (CCC) 2022 report to parliament on the Progress



in reducing emissions<sup>25</sup> signalled that suitable policies have not yet been implemented to deliver the large programme of delivery required to meet targets. In essence, progress is falling behind policy goals. It is also noted that the UK government has not set out a public engagement strategy, nor has the Treasury fully calculated and published the full range of costs and benefits of this transition.

Given that road transport ‘accounts for 10% of global greenhouse gas emissions, and its emissions are rising faster than those of any other sector’<sup>26</sup>, the Zero-Emission Vehicle Transition Council (ZEVTC) launched their 2022 Action Plan at COP26. The central tenet was to accelerate the global transition to zero-emission vehicles (ZEV’s), focusing on charging infrastructure, the transition of heavy-duty vehicles to zero-emission and greenhouse gas emissions regulations. The ZEV Declaration, also launched at COP26 – a collective group of transport stakeholders (vehicle manufacturers and governments, for example) who commit to selling only zero-emission vehicles by 2035 and ensuring fleet-owning businesses achieve zero-emission fleets by 2030<sup>27</sup>.

### **5.2.2 Net Zero Policy in the United Kingdom (UK)**

My study investigates the current state and future management implications of vehicle electrification in the UK private hire industry; thus, understanding the UK and its net zero policy is a crucial motivation and requires attention. In 2019, the UK became one of the first nations to formally address climate change (O’Beirne *et al.*, 2020) by committing to and legislating, achieving net zero by 2050, creating 2 million ‘green collar jobs’ and increasing the low-carbon exports economy to £170 billion annually by 2020 (Department for Business, Energy and Industrial Strategy, 2019). Further, in advance of COP26, the UK government published its Net Zero Strategy: Build Back Greener (NZS) (Department for Business, Energy,

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<sup>25</sup> [www.theccc.org.uk/publications](http://www.theccc.org.uk/publications)

<sup>26</sup> UK COP26. (n.d.). Transport. Retrieved February 08, 2023, from <https://ukcop26.org/transport/>

<sup>27</sup> United Nations ZEV Declaration [Policy document]: <https://zevdeclaration.org/>

and Industrial Strategy, 2021). This strategy outlined the ambitions to achieve reduce emissions across the economy, including sectors such as power, industry, construction and transport. The strategy also underlines key transition initiatives such as green investment, embedding net zero in government policy and empowering the public and businesses to make green choices<sup>28</sup>.

The NZS states that domestic transport contributes most to the UK's greenhouse gas emissions, with 23% generated by this sector alone and 55% of this attributable to passenger vehicles, and as such, removing emissions from passenger-carrying road transport is a priority (ibid.). The government therefore committed to ensuring that no new petrol and diesel cars are sold beyond 2030, as well as hybrid cars and vans by 2035. However, in 2023, the UK 'announced plans to push back the ban on new fossil fuel vehicles from 2030 until 2035 as part of a significant watering down of the government's key climate policies designed to help Britain become net zero by 2050' (Ambrose, 2023, para. 4) leading to a decline in the growth of electric vehicle sales, becoming one of the slowest rates of growth in Europe.

With a total of 251,100 licensed taxi and private hire vehicles operating in England in 2021 (Department for Transport, 2021), taxi and private hire vehicles are an integral part of the UK's transport network. This sector offers a mobility service at times and locations that other forms of public transport cannot, while transporting people on behalf of government bodies, local authorities, the NHS and charities. However, the words 'taxi' and 'private hire' do not feature in the government's Net Zero Strategy: Build Back Greener – nor is there any acknowledgement or guidance given to this industry, despite enforcing electrification policies.

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<sup>28</sup>UK government. (2021). Net Zero Strategy: Build back Greener. [Policy document]. Online: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1033990/net-zero-strategy-beis.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf)

### 5.2.3 The use of electric taxis (e-taxis) in other regions

Several e-taxi schemes have emerged in cities across the globe including Vienna, Stockholm, New York City, Bucaramanga, and Seoul (Reinthalder, *et al.*, 2014; Ko and Shim, 2015; Tseng, *et al.*, 2019; Langbroek and Hagman, 2020; Ospino, 2021). Only China and its major cities have accomplished successful large-scale deployment of electric taxis – notably Beijing and Shenzhen (Zou *et al.*, 2016). In 2019, for example, over 24,121 electric taxis in Shenzhen were studied as part of Hu *et al.*'s (2021) analysis of charging infrastructure and operational efficiencies. In contrast, Langbroek and Hagman's (2020) study highlighted that only 1% of the case company's fleet in Stockholm comprised electric vehicles. The latter represents the UK private hire industry, where market-leading fleets have been slow to electrify.

Several bodies of non-management research have presented issues related to using electric vehicles for private hire and taxi purposes from a socio-technical and engineering perspective. To understand the large-scale deployment of electric vehicles for commercial purposes, Zou *et al.* (2016) assess the relationship between driver behaviour (shift patterns) and charging behaviour (notably, charge time and frequency). Ko and Shim (2016) similarly analyse charging but focus on the optimal siting of charging stations to satisfy operational needs. Conversely, Bauer *et al.* (2021) place less importance on the siting of charging stations and emphasise how real-time information to drivers, such as queuing time, is most beneficial to maximising economical and operational efficiency. Meanwhile, Tseng, *et al.*, (2019) study the importance of vehicle performance by comparing various e-taxi battery capacities and driving ranges.

In addition to technical considerations, fleet electrification and e-taxis economics have been widely discussed. Scorrano, *et al.*, (2020) conducted a comparative analysis of the cost of e-taxis relative to conventional (petrol/diesel) taxis – considering asset costs, lease and

ownership model costs, and maintenance costs such as specialist EV repair and the need for battery replacements. From a monetary point of view, EV technology can be a viable alternative to conventional taxis if it improves in terms of vehicle driving range, purchase price and model availability. Li *et al.*, (2016) similarly argue that despite the high purchase cost of EV taxis, the cost savings made by consuming electricity rather than fuel means they are economically viable, but only on the basis that conventional taxis are subject to a far higher operating license, which e-taxis are exempt. Thus, it is the subsidy that makes the cost of the e-taxi competitive rather than being price competitive all things being equal. Kochhan (2016) discusses the economic impact on the end-consumer (passenger) and highlights how passengers are not willing to pay more for a more environmentally friendly service – raising questions as to how private hire firms and drivers can retain profitable operations if fare revenue cannot be increased, despite increasing costs.

To mitigate the complexity of transitioning to e-taxis, there has been a global introduction of regulatory framework and policy to combat challenges and encourage uptake by fleets. These include financial incentives to purchase and lease vehicles, subsidisation of charging costs and tax relief schemes. In China, policies have been specifically designed for the taxi trade, including incentivising the shortening of combustion engine vehicle operational lifespan to under seven years and tax relief on electric vehicle acquisition (Yang *et al.*, 2018). As well as financial incentives, Langbroek and Hagman (2020) highlight how policy in other countries has been designed to give drivers of e-taxis prioritised queueing positioning, at Stockholm Airport, for example, and particular contractual work for key hotels and large corporations. They also highlight, however, that there is a misalignment concerning policy design and benefitting stakeholders, in this case, drivers and private hire firms, given that the priorities of both parties differ. For example, drivers may opt for cheaper yet slower charging

facilities, which triggers operational and dispatching issues for the private hire firm due to reduced available vehicles to accept jobs.

#### **5.2.4 Current state of play for taxis and private hire vehicles in the UK**

Critical assessment of the background and context setting of this study highlights a gap between the UK government's net zero policy and the private hire industry. By not acknowledging this industry in its climate strategy, the UK government fails to consider not only the technical implications of using electric vehicles as taxis, which have a bespoke use case, but the business model changes and implications necessary to achieve government ambitions. To bridge this knowledge gap, this research addresses critical strategic management questions regarding government intervention and policy implication to offer an integrated theoretical framework. Through this lens, examining if the UK government's Net Zero policy is achievable in the specific context of the UK private hire and taxi market, and demonstrating the importance of a firm's ability to address 'deep uncertainty about technological and market opportunities and changes in regulatory environments at home and abroad and more generally' (Teece, 2023, p.114).

### **5.3 Literature Review**

#### **5.3.1 Government Intervention in Business**

At the time of writing, no research has been conducted regarding the effects and impact of UK government net zero policy on the UK private hire and taxi market. To fill this void, current literature on net zero policy is examined and its implications on business in other industries to determine if some comparisons and learnings can be applied to this specific market. More broadly, Keim and Hillman (2008, p.48) state that 'few would dispute the observation, however, that decisions by government policymakers can affect almost every aspect of business and that even simple policies can create, sustain or erode a firm's competitive advantage in a marketplace.'. This statement reinforcing Alford's (1975) view that within

hierarchies, the interests of others are affected, positively or negatively, by the interests and power of others, and warrants the application of Teece's (1997) dynamic capabilities framework, which can also be applied on a macro scale to give policymakers 'a deeper understanding of the origins and evolution of organisational capabilities to help predict likely business model responses to policy change' (Teece, 2016, p.213). Glynn and Cooper (2022, para. 9) develop this argument by applying the notion of vested interests to net zero stating that government policies are 'increasingly creating life and death issues for many companies that fail to prepare for a net zero world'. Operating with alternate energy sources is a complex endeavour, and businesses must consider significant changes in time, cost, and risk of business model changes. Applied to the private hire and taxi context, the implications range from vehicle acquisition cost and rental models to vehicle dispatching algorithms considering vehicle charge, repair and maintenance requirements and fine-related costs such as CAZ penalties. As such, without significant regulatory pressure or an increased cost of carbon, a viable business case for making this transition can be difficult to justify (ibid.). Since carbon prices are not a driving factor, governments are now using policies to incentivise sustainable energy use. The UK has an array of policies to incentivise and ultimately achieve sustainable change. For instance, for the UK private hire and taxi market, the government's policy to ban the sale of fuel-combusting engines from 2030 is an example of how a legislative framework can be used to force businesses to make sustainable changes. Indeed, such as making it a legal necessity for taxi and private hire companies to transition to e-taxis.

Glynn and Cooper (2022) also underline that despite proposed government policy, a lack of tangible detail means that managers face many unknowns, making a thorough evaluation of transitioning to electric taxis less certain. As evidenced, the UK government's

flagship Net Zero Strategy<sup>29</sup> did not mention ‘private hire’ and ‘taxi’ in its transport decarbonisation strategy. Yet, companies are expected to transition in line with legislation. Kuzemko (2022) addresses this disjoint between government and business, affirming that the government’s ability to meet its climate objectives must be formed in cooperation with industry as ‘government departments are under-resourced and lacking in institutional memory’ (p.238). Keim and Hillman (2008) similarly believe the relationship between business and governments is vital to the strategic planning process, especially since ‘governments will become progressively more important to business managers over time... because of issues such as sustainability, climate change, healthcare and trade policy’ (p.52). Therefore, the government’s failure to consult businesses in this sector fails to include businesses that are expected to enact its principal decarbonising strategy and has prevented access to knowledge resources and market data. Simply put, producing policy that does not adequately serve the interests of vital stakeholders. This research bridges this gap, generating a more balanced approach to policymaking by considering each stakeholder group’s interests, and the conflicts between them.

On top of the government’s responsibility to engage with businesses in an absorptive (listening), administrative (resourceful), analytical and communicative capacity (Dunlop, 2018) to ensure effective policy design and intervention, managers also have a responsibility to be proactive to shape public policy, sensing opportunities and shifts in the external business environment, coined as ‘entrepreneurial management’ by Teece (2016). Weidenbaum (1980) summarises this aspect by stating that ‘public policy is no longer a spectator sport for business’ (p.46), distinguishing between managers who offer a passive response to policy and those who are proactive in shaping it. By a passive reaction, Weidenbaum (1980) refers to when managers

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<sup>29</sup> UK government. (2021). Net Zero Strategy: Build back Greener. [Policy document]. Online: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1033990/net-zero-strategy-beis.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf)

change business operations, if required, based on new legislation. In contrast, proactive engagement with the government directly or through interest groups to aggregate interests. Zardkoohi's (1985) research demonstrated that firms most proactive in political engagement are often more extensive, more global and operate in heavily legislated industries. Reflecting on the UK private hire and taxi market, the Uber Files leaked by The Guardian<sup>30</sup> in 2022 highlighted how the Silicon Valley firm pressured global governments to rewrite and reform laws in their interest. However, it remains unknown whether net zero and climate policy were the focus of these engagements with the government, nor whether these engagements were compliant with government lobbying rules.

Critical to this discussion is not only the publication of new policy but the implementation of it. Policy implementation literature (Sabatier and Mazmanian, 1979; Cerych and Sabatier, 1986; Gornitzka, Kyvik and Stensaker, 2005) has identified critical variables for effective implementation. These include unambiguous policy directives, a clear, process-driven implementation strategy which increases target group performance and the right socio-economic conditions that enable fruition. Additionally, existing literature (ibid.) points to the requirement of policy resources, such as financial subsidies and penalties, to encourage policy adherence by businesses. To exemplify such observations in the UK private hire and taxi market, and more specifically to the region of interest of this research, the local authority is introducing a Clean Air Zone (CAZ) to charge non-compliant vehicles to enter a city-centre zone as well as offering government-funded grants to private hire licenced drivers to upgrade their vehicles<sup>31</sup>.

To explore the interaction between government policy and its implications on businesses, next the theoretical frameworks applied to this study are discussed.

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<sup>30</sup> The Guardian (2017). Uber Files: 124,000 confidential documents leaked.

<https://www.theguardian.com/technology/2017/jul/15/uber-files-124000-confidential-documents-leaked>

<sup>31</sup> Newcastle City Council. (n.d.). Businesses to be given longer to get CAZ ready. [Web page]. Retrieved from <https://www.newcastle.gov.uk/citylife-news/transport/businesses-be-given-longer-get-caz-ready>



### 5.3.2 The Forgotten Industry

Drawing on climate change objectives set at UK hosted COP26<sup>32</sup> to reduce emissions and speed up the switch to electric vehicles, and the UK government Net Zero Strategy to meet these requirements, the failure to include the UK private hire and taxi industry in the transport plan for achieving net zero is a glaring omission. Thus, the UK private hire and taxi industry is the forgotten industry in an overarching hierarchy of macro, meso, and micro-level actors. Theoretically and pragmatically, this paper defines the gap between government electrification policy and the UK private hire and taxi industry, determining the vested interests and subsequently applying action research to highlight optimal solutions for e-taxis.

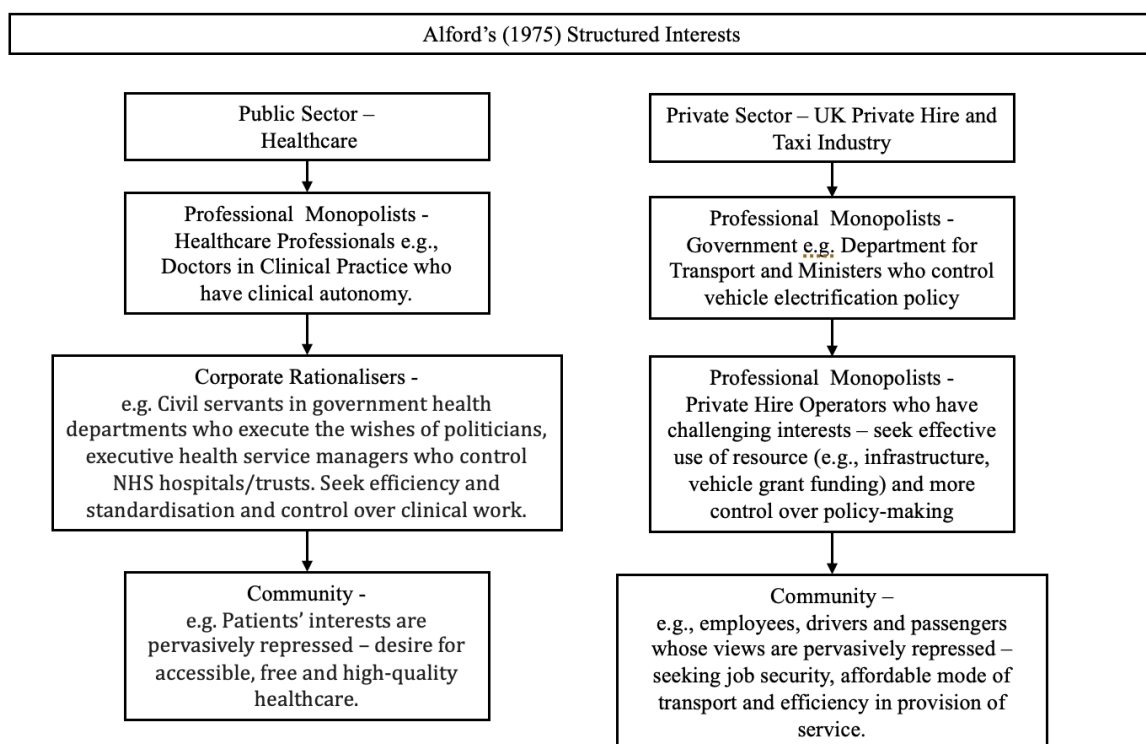
To highlight the different interests and power between government and industry in this context, I draw on Alford's (1975, p.xiii) 'strategically structured interests' conceptual framework to assess the role of stakeholders concerning policy changes. Alford first applied this term to explore power dynamics between those leading health system reforms in the United States, emphasising 'a continuing struggle between major structural interests operating within the context of a market society – "professional monopolists" controlling the major health resources, "corporate rationalisers" challenging their power through managerialism, and the community population seeking better health care' (Alford, 1975, p.xiv). By structuring the market in this way, a distinct hierarchy is formed and outlines distinctions between the structural interests of each group of actors labelled as 'interest-group politics' (Alford, 1975, p.9). These interests, created by an array of political, legal, and economic activities, allow each group to maintain specific dominant interests and, thus, maintain relative positions of power.

There is an analogy when applied to the UK private hire and taxi market: the macro-level monopolists – the government who have dominant control of policy and funding, the meso-level corporate rationalisers – traditional private hire firms and system operators, and the

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<sup>32</sup> UK COP26. (n.d.). COP26 Goals. [Web page]. Retrieved from <https://ukcop26.org/cop26-goals/>

micro-level community population – passengers, drivers, and industry employees. Drawing parallels to Teece (2016), these structures demonstrate how competition not only is a force between homogeneous firms but is also present between distinct and idiosyncratic actors, such as businesses and governments. Since the publication of Alford’s seminal work (1975), structural interest research has continued to be applied to the interaction between health care and policy, for example, the National Health Service (NHS) and other primary care providers in the UK (Peckham, 2001). By applying Alford’s theory to a different context, namely the private sector, I offer development to this model by using a commercial lens to understand how actors are positioned differently and how dynamic capabilities can be employed by corporate rationalisers in a more fast-moving, technologically fertile consumer market (Teece, 1997).



**Figure 5.1:** A comparative model of the application of Alford's (1975) structured interests theory applied to public and private sectors, illustrating hierarchical actors.

Applying this perspective to the UK private hire and taxi market, private hire firms act as the meso-level corporate rationalisers questioning government and local authority policy, who, at the macro-level, control crucial tools, policy and funding, which is a fundamental enabler for a transition to e-taxis. Whilst the government uses its NZS policy to meet obligations and climate commitments set out at COP, UK private hire and taxi businesses challenge the viability and practicality of these policy implications – such as the cost of vehicles, operational feasibility (dispatching vehicles with variance in charge availability) and business model changes such as fare pricing. Consideration is also required for micro-level community actors that the corporate rationalisers serve (such as passengers, drivers and private hire employees), who will encounter changes during the transition to electric, being: vehicle affordability for independent drivers, electric vehicle suitability (e.g., wheelchair-accessible vehicles for disabled passengers), changes in working hours/location (due to topography/charge considerations) and continuous professional development (the requirement for electric vehicle repair retraining).

This study addresses two crucial points that develop an understanding of the strategically structured interests in this industry and the implications for taxi electrification. I investigate the following:

1. In this industry context, to what extent is the interest of the UK private hire and taxi operators being served by the current UK government's Net Zero Strategy?
2. Can Action Research play a role in providing the government with industry insights and considerations to produce alternative approaches to its current policy to electrify taxis?

Using these crucial points to identify industry implications of government policy implementation, I both determine whether government policy will be practical and implementable across stakeholder levels and, thus, whether the outcomes can allow the

government to reach the climate goals agreed to at COP. By using Alford's and Teece's (1997) theoretical frameworks to identify stakeholder tensions and roles with existing policy, I use Action Research to provide policy alternatives that enable electrification in a way that is more representative and suited to each stakeholder's group's needs.

## **5.4 Methods**

### **5.4.1 Action Research**

Koshy *et al.* (2011) highlights how tackling real-life problems and situations are at the heart of Action Research (AR), and unlike a case study, in which a separated and detached researcher studies a phenomenon (French, 2009), AR aims at taking action as well as creating knowledge or theory about that action (Coughlan and Coughlan, 2002). AR, therefore, generates research from people who are 'close to the action' whereby it 'arises organically from their work' making sense of their own practice and the problems they face (Prichard and Trowler, 2003, p.xv). This intimate participation of the practitioner as researcher bridges divisions between the two roles, demonstrating their interdependency, and, because questions are rooted in professional practice (*ibid.*, pxv-xvi), not only is practical knowledge acquired, but successful change is more likely implemented in the form of action (*ibid.*). Thus, O'Leary (2005) affirms AR is well-suited to management studies given its 'systematic approach to continuous improvement' (p.190) and realisation of change, which differentiates Action Research from other forms of knowledge generation methods.

This study adopts AR as a novel approach to investigating how industry can provide the government with alternative policy considerations using the following, replicable process. To inform the debate surrounding the future of the UK private hire and taxi industry, the privileged and unique position of the practitioner as insider<sup>33</sup> is used within their own private hire family firm (Coffey, 1999; Hannerz, 2003; Wall, 2006; Clarke and Braun, 2014). This

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<sup>33</sup> Lead author.

intimate familiarity of the industry of context (UK private Hire market) is used to identify a central topic for my AR – the electrification of taxis. This increases the credibility of the research and the suitability of AR as the methodological approach, given that the study is undertaken with professional considerations at the forefront within the researcher's professional capacity (Sankaran and Tay, 2003).

The action research approach is 'a cyclical four-step process of consciously and deliberately: planning, taking action and evaluating the action, leading to further planning and so on' (Coughlan and Coughlan, 2002, p.223). The enactment of these cycles was anticipated rather than designed in advance due to the emergent nature of AR. As part of this study, two cyclical and interconnected streams of action research were conducted due to the unique positioning of the researcher as an insider (See Figure 5.2 below). Since AR focuses on interactive and participative research in action, rather than research about action (Gummesson, 2000) there is a growing experience of managers undertaking AR projects in their own firms, as managers begin to engage in academic programmes alongside their work (Bartunek *et al.*, 2000), which was the case for my study. As such, first, the firm engaged in AR through a privately organised collaborative project with the CDT to analyse 8.7 million sets of taxi journey data (See section 5.4.3), combined with a second interconnected AR stream occurring simultaneously led by the researcher as participant observer. These two streams were interconnected since the outputs from the firm-organised project AR cycle informed the second action phase of the research led AR, outlined in Figure 5.2.

In both engagements, with the researcher and the CDT, the firm analyses the industry context and its own purpose for engaging in this research, identifying gaps in knowledge, and understanding business modelling and strategic management. With the understanding that the research must meet the demands of policy and market monopolisers, the firm uses the planning stage of AR to consider change. For example, realignment of its business model, structure, and

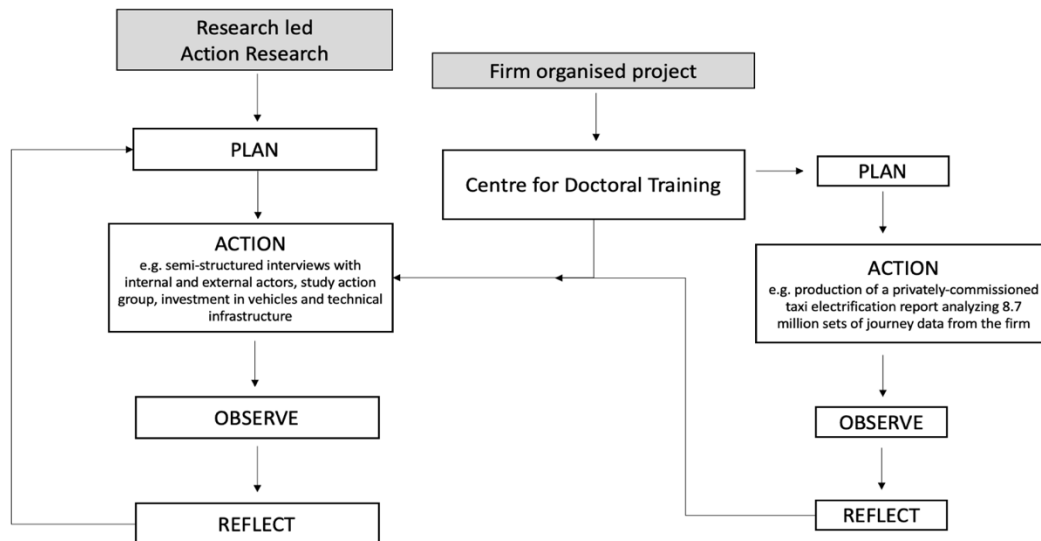
strategy, to operate under new legislations (Teece, 1997) – firming up its purpose for engaging in AR by challenges pre-existing misconceptions. Recognising the lack of understanding of its own data related to this industry change, the firm actively uses the planning phase to participate with the CDT to inform, ensuring all participants have the necessary knowledge and understanding of this industry change and its own operational activity and strategic management before gathering data.

To gather data, action research uses data generated ‘through active involvement in the day-to-day organisational processes relating to the AR project’ (Coughlan and Coughlan, 2002, p.231). In this study direct observation of phenomena took place in both formal settings, such as research-planned interviews and meetings, but also in informal settings, with colleagues over lunch, whilst car-sharing to work and during time spent with colleagues outside of work. To inform and steer these conversations, harnessing an insider’s unique access to hard data, such as journey data, financial accounts and internal management reports – demonstrating the interaction between both cycles of AR. Once data collection was complete, it was analysed in a collaborative approach with participants through an explorative diagnostic inquiry, questioning reasoning, actions and emotional processes through questions such as: ‘What action did you take?’ and ‘Why do you think this happens and how does it make you feel?’ (Coughlan and Coughlan, 2002). The AR process is used to create a change plan which outlines what action steps are to be taken, by whom and in which areas of the business, and in what time frame. This action is then implemented before finally reflecting on the AR process to understand organisational learnings (Kleiner and Roth, 1997).

Throughout each cycle of the AR process, reflection is integral. By critically reflecting on practice, it facilitates new knowledge and stimulates new ways of improving research practice in providing qualitative rigour – for example, by accounting for researcher bias. As both insider and researcher, acknowledging the impact and effect of personal experiences,

knowledge, and bias on the resultant research output, but employing a rigorous methodological approach (outlined in section 5.4.2) ensures that the results do not only reflect the personal perspective of the researcher and are valid, credible and dependable (Stringer, 2007). Specifically, reflection in AR 'is the critical link between the concrete experience, the interpretation and taking new action' (Coughlan and Coughlan, 2002, p.235). Since action research involves the uncertainty of an unfolding narrative, its cyclical and reflective nature benefitted from methodology sequencing applied in this study, using two simultaneous streams of AR, allowing one stream of AR to inform the other and vice-versa. For instance, the firm-organised data analytics project informed the themes investigated within semi-structured interviews premised on the insights gained from the analysis of the firm's own data by the CDT. Thus, better informing the action, observation, and reflection stages of this study's AR, making sure that all actors were aware of interesting innovations and trends to fully make sense of their own practice, and reflecting rigorously on their own assumptions. To exemplify this, taxi operational behaviour and trends derived from unique real-life taxi data analysed during the reflection phase of firm-organised project were presented by the CDT to other stakeholders during the Action phase of the Research led AR cycle (outlined in Figure 5.2 below), having admitted to never having had access to taxi data and insights belonging to corporate rationalisers in the past.

Figure 5.2 outlines the two cyclical and interconnected streams of action research that formed the basis for this research approach. It shows both the firm-organised project conducted alongside the Centre for Doctoral Research and the research-led Action Research. Both streams of Action Research followed the plan, action, observe and reflect stages and occurred simultaneously, with data analysis and outcomes generated during the firm-organised project informing the semi-structured interviews, study action group and active investments during the action phase of the research-led AR.



**Figure 5.2:** Action Research cycles followed during the firm’s privately commissioned collaborative project with the CDT and the research-organised engagement with the firm (Source: author’s own).

### 5.4.2 Methodological Approach

Robson (1993) emphasises using multiple sources of evidence to strengthen research when investigating contemporary phenomena within their real-life context. The research design follows elements of both Stake’s (1995) and Merriam’s (1998) constructivist approaches to research design and data collection. In line with Stake, I start with two clearly defined research questions that ‘help structure the observation, interviews and document review’ (Stake, 1995, p.20). But, whereas Stake (1995) encourages a flexible research design upon the reasoning that ‘the course of study cannot be charted in advance’ (Stake, 1998, p2), I follow Merriam’s (1998) five steps of research design (conducting a literature review, setting a theoretical framework, identifying research problems and producing evolved and concise research questions), meaning the research questions are moulded from the essential review of existing literature, contributing to the further development of theory (Merriam, 1998).

Next, a multi-method approach was applied in using interviews, observing, and analysing documents (Merriam, 1998) to ensure robustness. This included to analysing complex reports produced by the Centre for Doctoral Training (CDT) in Geospatial Systems,



participant observation of a private hire firm, reflexive journaling by the insider<sup>34</sup> and semi-structured interviews with key industry stakeholders. Waddington (2004) supports this approach by outlining how most practitioners of participant observation do not rely wholly on their observations, analysing other information sources such as complex documents<sup>35</sup>. Using these complex technical findings, interviews were conducted with key industry stakeholders at the firm level and external actors.<sup>36</sup> In so doing, garner insights into the ‘strategically structured interests’ of interest groups at the macro, meso, and micro levels of this sector (Alford, 1975, p.xiii). As per the outlined theoretical framework for understanding stakeholder interests regard policy-making and industry impact, participant observation underpinned the data generation process. These methodological approaches and tools are explained in more depth in subsequent sections of this chapter.

The objective in employing this approach is to produce representative findings rather than limiting data collection to a single source or method. Thus, I ensure a more comprehensive and robust analysis due to the substantiation of data across multiple sources. Triangulating data from different sources and other methods has therefore been a powerful tool for comparing observational and interview data, identifying thematic similarities and inconsistencies (Merriam, 1995; Stake, 1998; Hannerz, 2003).

Building on this triangulation of data, the defined steps that guided my analysis are outlined. The data collected through interviewing, participant observation and the production of complex documents (Merriam, 1995; Stake, 1998) were analysed using the inductive, grounded theory approach. Themes and patterns emerged from re-reading of data, open coding of the data using a mixed method approach of Nvivo for interview transcripts and handwritten highlights and annotating for third-party documents, and the final refinement and defining of

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<sup>34</sup> Lead Author

<sup>35</sup> See Table 5.1 in Appendix B

<sup>36</sup> See Table 5.2 in Appendix B

themes having employed triangulation across multiple data sources to spot patterns in the data concerning common codes which were they grouped into relevant overarching themes (Braun and Clarke, 2006; Maguire and Delahunt, 2017).

#### **5.4.3 Centre for Doctoral Training (CDT) in Geospatial Systems Project**

This project, conducted by CDT in Geospatial Systems at Newcastle University<sup>37</sup>, was organised privately in collaboration with my firm, while the interviews and documentary analysis ran concurrently. Combining the multiple methods is considered part of the recommended AR protocols. The findings produced by the CDT acted as a significant research artefact, providing novel insights from the firm's actual journey data, such as taxi routing and road use, driver shift patterns and distances travelled. These discoveries shaped the interview questions posed to participants during the semi-structured interviews<sup>38</sup> as part of my concurrent research led AR steam outlined earlier in Figure 5.2.

The geospatial researchers were provided with a written brief of the industry context and regulatory challenges by me in my professional management capacity, considered as the planning phase of the firm-led AR cycle. Then, I met the researchers in-person for a keynote presentation along with a former Chief Scientific Adviser for the Department for Transport, and a Visiting Professor of Engineering, who had expertise in the field of vehicle electrification. I presented industry and firm-level-specific considerations to provide the geospatial researchers with contextual knowledge to highlight operating practices specific to my industry. To give balanced insight into other stakeholders' positions, knowledge and insights, technical keynotes from a former Chief Scientific Adviser for the Department for Transport, and a Visiting Professor of Engineering, were also provided, focusing on vehicle, infrastructural

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<sup>37</sup> Website: <https://geospatialcdt.ac.uk>

<sup>38</sup> See Table 5.6 in Appendix B

considerations and government policy. This was followed by a closing question-and-answer session.

The CDT then received authentic journey records spanning three years (ranging from 2019 to 2022) by my private hire firm. The aim was to conduct a four-week viability analysis of ZEVs operating as private hire vehicles from a technical and infrastructural perspective. Collected from a standard operational setting and without any controlled or standardised trialling (Kunz, 1998), the CDT conducted an exploratory data analysis (EDA) of this real-life big data, which consisted of 8,798,129 rows of journey records, each with 20 columns – see below in Figure 5.3.

Figure 5.3 – Sample of Taxi Journey Data provided to The EPSRC Centre for Doctoral Training (CDT) in Geospatial Systems

PICKUP DATE	PICKUP ETA	BOOKED	ARRIVED	CONTACT	FINISH ADDRESS	ZONE	LATITUDE	LONGITUDE	DESTINATIOI	DESTINATIOI	DESTINATIOI	DRIVER	METER	ACTUAL DIST	ACTUAL DIST	DISTANCE	C	DURATION
01/12/2019	00:00	01/01/1970 01:00	01/01/1970 01:00	01/01/1970 01:00	14-12 ST. JAMES P. City North		54.974853	-1.622173	CRAMLINGT	55.08602		-1.583153	0	0	0	0	0	22
01/12/2019	00:00	01/01/1970 01:00	01/01/1970 01:00	01/01/1970 01:00	22-13 30 GRASMEI Walker		54.972391	-1.556911	CITY CENTRE	54.970882		-1.610391	0	0	0	0	0	7
01/12/2019	00:00	01/01/1970 01:00	01/01/1970 01:00	01/01/1970 01:00	23-44 14 CHARLAW CLOSE, SACI		54.823136	-1.632443	4 GAINFORD	54.853034		-1.590071	0	0	0	0	0	11
01/12/2019	00:00	01/01/1970 01:00	01/01/1970 01:00	01/01/1970 01:00	23-53 8 STEPHEN S Consett		54.855723	-1.833878	FENWICK WJ	54.854417		-1.845441	0	0	0	0	0	3
01/12/2019	00:00	01/01/1970 01:00	01/01/1970 01:00	01/01/1970 01:00	23-54 8 MILLENNIUM Durham City		54.778387	-1.575669	14 GRANARY	54.857854		-1.821984	25.4	2910	1.8081867	1.7783	0	0
01/12/2019	00:00	01/12/2019 00:00	30/11/2019 23:50	30/11/2019 23:54	00:00 17 BONDICA Blyth Centre		55.126527	-1.508758	36 BEATRICE	55.110447		-1.535399	557	5.2	2910	1.8081867	1.7783	0
01/12/2019	00:00	01/12/2019 00:00	30/11/2019 23:50	30/11/2019 23:58	00:12 ARMANAS, CC Camperdown		55.044042	-1.578093	ALLENDALE F	54.973018		-1.570001	12.4	9377	5.82658649	5.7906	15	
01/12/2019	00:00	01/12/2019 00:00	30/11/2019 23:58	01/12/2019 00:04	00:13 69 MEDWAY Deckham		54.952129	-1.585442	RECTORY RC	54.95109		-1.60926 X324_2601	5	2699	1.67707763	1.6018	5	
01/12/2019	00:00	01/12/2019 00:00	30/11/2019 23:57	01/12/2019 00:05	00:13 CROCKETS H Low Walker		54.974206	-1.539259	COQUETDAL	54.978485		-1.542548 X782_2310	5.8	3283	2.03995771	2.0053	0	
01/12/2019	00:00	01/01/1970 01:00	01/01/1970 01:00	01/01/1970 01:00	00:15 SUNDERLAN Felling		54.950203	-1.554703	4 RANNOCH	54.950775		-1.531871	4.4	0	0	0	0	
01/12/2019	00:00	01/12/2019 00:00	30/11/2019 23:56	01/12/2019 00:02	00:16 2 FORRES CT East Stanley		54.868305	-1.675731	THE COMPAL	54.851264		-1.832588 X1778_1501	16.6	13073	8.12317001	8.1073	0	
01/12/2019	00:00	01/12/2019 00:00	01/12/2019 00:06	01/12/2019 00:16	00:16 WYLLAM BRE City North		54.982325	-1.616363	SEATON SIU	55.082152		-1.477539	584	0	0	0	26	
01/12/2019	00:00	01/12/2019 00:00	30/11/2019 23:45	30/11/2019 23:57	00:17 THE UNION I City South		54.969908	-1.614923	30 HIGH RIDI	55.040596		-1.631396	21	9675	6.01175475	5.8011	0	
01/12/2019	00:00	01/12/2019 00:00	30/11/2019 23:55	01/12/2019 00:02	00:18 24 CRAKE W. Washington		54.88733	-1.552157	PARK LANE F	54.903463		-1.384859 X1592_2611	24	14199	8.82283263	8.805	0	
01/12/2019	00:00	01/12/2019 00:00	01/12/2019 00:04	01/12/2019 00:12	00:19 138 BENFEL Blackhill (B)		54.866355	-1.855616	PARK TERRA	54.835296		-1.869878 X1131_2611	5.8	4458	2.77006746	2.7572	11	
01/12/2019	00:00	01/12/2019 00:00	01/12/2019 00:09	01/12/2019 00:11	00:20 G W HORNE Chester ie St		54.857964	-1.573556	SANDERS G	54.900958		-1.57435	7.4	5025	3.12238425	3.1133	8	
01/12/2019	00:00	01/12/2019 00:00	01/12/2019 00:06	01/12/2019 00:10	00:22 THE ALCHEM City South		54.973434	-1.614665	1 CHELTENH	54.981332		-1.579625	15	6.3	3411	2.11949307	1.9983	8
01/12/2019	00:00	01/12/2019 00:00	01/12/2019 00:00	01/12/2019 00:11	00:22 6 ROBINSON Blydon		54.957947	-1.715229	OLD MAIN S	54.964499		-1.791026 X749_0303	9.5	6548	4.06873076	3.9925	11	
01/12/2019	00:00	01/12/2019 00:00	01/12/2019 00:09	01/12/2019 00:15	00:22 MICKLEY CLC Willington Q		54.994371	-1.498697	PROSPECT A	54.999857		-1.536162 X120_2310	5.8	3642	2.26302954	2.243	6	
01/12/2019	00:00	01/12/2019 00:00	30/11/2019 23:54	30/11/2019 23:59	01/12/2019 00:03	00:24 TYNEWOUTH Tynewmouth		55.01646	-1.418202	EASTBOURN	54.95121		-1.606514 X227_2002	21.8	17718	11.0094337	10.9685	28
01/12/2019	00:00	01/12/2019 00:00	01/12/2019 00:00	01/12/2019 00:05	00:24 BRIDLE PATH Whickham		54.945546	-1.682377	THE HAUGH	54.964463		-1.852313	214	17.4	13849	8.60535313	8.5978	16
01/12/2019	00:00	01/12/2019 00:00	01/12/2019 00:15	01/12/2019 00:19	00:28 TURF HOTEL Winton		54.955224	-1.727496	CONWAY CL	54.966296		-1.752375 X1121_2112	7.7	4787	2.97449819	2.9367	6	
01/12/2019	00:00	01/12/2019 00:21	01/12/2019 00:18	01/12/2019 00:20	00:29 TYNESIDE FC City North		54.971036	-1.621426	1 BENTINCK	54.97123		-1.644012 X930_1811	5.4	2823	1.75412751	1.7175	0	
01/12/2019	00:00	01/12/2019 00:00	01/12/2019 00:08	01/12/2019 00:12	00:31 NEWCASTLE City North		54.974987	-1.617514	JUTLAND AV	54.975878		-1.514409	288	15.4	12073	7.50180001	6.9165	14
01/12/2019	00:00	01/12/2019 00:00	01/12/2019 00:27	01/12/2019 00:31	00:31 THE BREWERY Dunston		54.955978	-1.654437	37 RAMSAY	54.935916		-1.78181 X1738_0309	0	0	0	0	19	
01/12/2019	00:00	01/12/2019 00:00	01/12/2019 00:12	01/12/2019 00:17	00:32 WYLLAM BRE City North		54.982325	-1.616363	HOLYSTONE	55.02829		-1.529388 X1628_0309	13.2	9723	6.04158051	6.0227	12	
01/12/2019	00:00	01/12/2019 00:00	30/11/2019 23:54	01/12/2019 00:05	00:34 9/7, 55 DEGI City South		54.971688	-1.608688	34 MANOR F	54.913892		-1.517355 X628_2002	25	19300	11.992441	11.9138	27	
01/12/2019	00:00	01/12/2019 00:00	30/11/2019 23:50	30/11/2019 23:57	00:37 103 THORNTONS CLOSE, I		54.873805	-1.618893	34 TYNEBAN	54.959095		-1.725793	32.5	19506	12.1204432	12.049	27	
01/12/2019	00:00	01/12/2019 00:00	30/11/2019 23:51	01/12/2019 00:14	00:39 CLARION HO Boldon Col		54.944063	-1.470583	PILGRIM STR	54.97073		-1.609049 X350_1312	17.5	6572	4.08364364	4.0167	9	

The CDT in Geospatial Systems employed Erbas *et al.*'s (2018) methodological approach of converting spatial and non-spatial data into information through a multi-criteria decision-making analysis (MCDA) using geographic information system mapping (GIS). This entailed using advanced previous studies based on optimal EV charging location using analytical hierarchy process (AHP) and MCDA (Tang *et al.*, 2013, Erbas, *et al.*, 2018, Guler and Yomralioglu, 2020, Zafar *et al.*, 2021) by combining not only urban, environmental, and economic factors<sup>39</sup> using an analytical hierarchy process (AHP) (Salabun *et al.*, 2020; Anthopoulos and Kolovou, 2021), but developing this procedure by adding novel taxi data, providing a unique insight into taxi activity using an origin-destination analysis (ODA). Throughout the four-week project, two weekly Zoom calls were held between the two parties (CDT and the firm) to analyse the data together, track the project development, and answer further questions from both a technical and business management and modelling perspective.

Finally, action was taken in the form of a written report delivered to the firm. Some of these findings are outlined in section 5.5 below, and the primary data was used to inform the subsequent cycles of my AR, notably shaping interview questions through these novel firm and industry specific data insights.

#### **5.4.4 Interviews**

Taking the output from the CDT AR Report, semi-structured interviews were conducted via multi-level analysis, engaging both firm and external industry actors<sup>40</sup> from my professional, insider network, as recommended by Denis *et al.* (2001). A complete set of questions is provided in Table 5.6 in Appendix B. This ensures closeness to industry and relevant industry knowledge, providing sector insights that are pivotal to the premise of this research - to inform policy by understanding and representing the 'strategically structured

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<sup>39</sup> See Table 5.3 in Appendix B

<sup>40</sup> See Table 5.2 in Appendix B

interests' of interest groups at the macro, meso and micro levels of the UK private hire and taxi industry (Alford, 1975, p.xiii).

First, stage one consisted of eleven in-person semi-structured interviews with firm-level representatives of a regional private hire company: Managing Director and firm owner, Operations Director, Head of Fleet, Head of Garage Services, and private hire drivers. This purposive sample, with actors from across the firm's hierarchical structure, gave voice to divergent perspectives from different operational functions, levels of responsibility and family/non-family employees within the company and offered a depth of understanding across key departments (Boddy, 2016). In this PhD thesis, while I acknowledge the significance of micro-level actors such as drivers and passengers, I have deliberately excluded them from the direct data collection process. Instead, I rely on their perspectives being encapsulated through the lens of the firm. This decision stems from the sheer volume and substantial divergence of views among these actors, exemplified by the count of 85,000 weekly travellers. Undertaking a comprehensive data collection process to faithfully represent all viewpoints at this level would have been excessively time-consuming. Consequently, I deemed it necessary for such an endeavour to warrant its own distinct research project. Each interview lasted between forty-five and sixty minutes. Although framed as interviews in this methodology, interpersonal skills (Waddington, 2004) and pre-existing relationships with participants created more fluid, casual and open conversations that reflected the closeness to the researcher. At the firm level, the research questions centred on how the electrification of taxis would affect different stakeholders and their positions within the firm, enabling a holistic view of the business implications of this transition from combustion engines to ZEVs through micro-perspectives. Questions were also asked to specific participants to establish what actions the firm had taken or planned to take concerning electrification and compliance with policy directives.

Second, expert findings were gathered through a further six semi-structured interviews with actors outside the firm. Albeit a small sample, this external group offered deep, expert insights into the subject industry and regulation, compared to a larger, less informed sample (Boddy, 2016). This cohort was accessed from my professional network to offer nuanced insights and alternative perspectives rather than limiting data collection to within the firm (Wall, 2006). While there were other individuals in my network, these participants were selected due to their unique blend of professional expertise in relevant industries to this study and that aligned with my research objectives - a specialist senior transport planner from the local authority, a strategic management consultant specialising in ZEVs, Head of Strategy and Partnerships of a global vehicle manufacturer subsidiary, a climate consultant, and a C-suite executive of a public transport (bus) operator (Palinkas *et al.*, 2015). The interviews were conducted online and were commenced by asking participants to describe their professional capacity to produce further background knowledge. These initial stages were followed by more case-specific questions to identify critical insights about the decarbonisation of taxis and the transition to ZEVs relevant to each stakeholder. Questions included the electrification of the taxi industry but allowed for more general commentary, given participants' experience in other sectors.

Before both stages of interviews were conducted, all participants were provided with a questions sheet and a consent form signed and securely stored. Each interviewee was notified of and guaranteed complete confidentiality and anonymity, encouraging participants to answer questions openly and confidently. Participants had the option to withdraw their consent and data at any stage of the research.

During both stages of the interviews, extensive notes and observations were recorded (Denzin and Lincoln, 2003; Scotland, 2012). The collection and processing of data in this way

formed part of a broader ethnographic participant observation approach to data generation, which is explained in depth below.

#### **5.4.5 Participant Observation and Ethnographic Underpinning**

The position of ‘insider’ permits a high degree of immersion and intimate knowledge of the UK private hire industry. Participant observation was an overarching data generation method throughout this research – during the multi-stage interviews and the collaborative CDT project. This intimacy to the research subject allowed for data collection ‘to occur naturally through observation, making it a genuine artefact of a research setting’ (Silverman, 2001, p.286).

Participant observation was embedded in an ethnographic approach to this research. Ethnographic research differs from other qualitative data in that rather than drawing primarily from participants' input, it is the researcher's ‘personalised seeing, hearing, and experiencing in specific social settings’ (Van Maanen, 2011, p.222). To craft these narratives of reality, reflection on my own highly immersed personal experience in the research field was recorded in my fieldnotes, placing me ‘in the thick of things’ (Yanow *et al.*, 2012, p.352). By including this richness of lived experience, I can convey to the reader not only a recording of what was said but also the emotions, environment, and peculiarities at the time of the interaction with participants and, in doing so, replicating the sensation of being there and strengthening the meaning and connection with data (Jawzabkowski *et al.*, 2014).

Hence, participant observation went beyond verbatim quotes in describing the emotions and tensions experienced (such as frustration and confusion), enriching the narrative through additional emotional context. As many of these interpretive notes were compiled during the observation where possible; however, revisiting audio recordings of interviews to produce the most accurate verbatim quotes was required, and further commentaries were added post-transcription and acted as part of the reflective process. Next, following Jawzabkowski's *et al.*'s



(2014) three-step process to rework notes into meaningful text<sup>41</sup>. First, the field notes were made logical and clear by correcting syntax and grammatical errors - removing short-hand, spelling mistakes and other irregularities. For example, clarification of short-hand terms such as 'LA's' and 'SE' as referring to local authorities and self-employment, as well as removing illegible notes such as '£££' and replacing them with meaningful text such as 'extortionately expensive'. Second, reflecting and strengthening the emotional commentary within. For instance, adding that the Managing Director critically conveyed his thoughts, using a frustrated and angered tone of voice. Third, key theoretical concepts were revisited, considered and critically weaved into the fieldnotes, drawing comparisons between data and existing literature, such as Li *et al.*'s (2016) economic viability analysis of electric taxis.

Once the above steps had been taken, observations of various actors and events produced a single composite narrative to develop meaningful empirical findings from the combined data and observations. This helped find meaning in fragmented observations by identifying common micro-themes and main themes in the data<sup>42</sup> that was collected across a wide body of records (Smets *et al.*, 2014), such as the participants' direct contributions from interview data and participant observation. Creative ethnographic writing (Humphreys and Watson, 2009) was key to the composition of this singular narrative, surrendering the objective voice and using the first-person and personal narrative accounts to illustrate closeness to the phenomena in this participant observation and action research (Schultz, 2000).

Although AR does not face more threats to its validity than any other type of research, there are challenges to this method that must be acknowledged. Principally, it is important that action researchers are consciously unbiased, as far as practically possible (Argyris *et al.*, 1985). Fisher and Torbert (1995) outline that being explicit in the research's purpose, openly

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<sup>41</sup> See Table 5.4 in Appendix B

<sup>42</sup> See Table 5.5 in Appendix B

acknowledging one's personal inferences, opinions and viewpoints and mitigating these through directly observable data will aid in presenting a valid presentation of the AR that has taken place. Placing this sentiment at the forefront of my mind, I discuss the findings.

## **5.5. Findings and Discussion**

### **5.5.1 CDT Technical Findings**

To provide an increased depth of understanding for effective Action Research, key findings were discovered from the private hire firm's journey data and subsequent analysis by the University's CDT.

'Results demonstrate the need to significantly grow the current vehicle charging network. A minimum of 75 charging points should be added alongside a hub specifically for the Blueline fleet in central Newcastle.... If by 2030, 75% of the company's fleet is to be converted to electric'

*(CDT Report, p.1)*

To come to this conclusion, the CDT's analysis combined firm-specific considerations, such as the firm's 1,000 vehicle fleet, with existing recommendations in literature, notably that there should be at least one charging station for every ten electric vehicles (ICCT (2020)). Other industry specific trends were identified and considered within the data such as the such as frequent use of common routes and roads between high volume of pick-ups and drop-offs which is associated with taxis (See Figure 5.4 below).

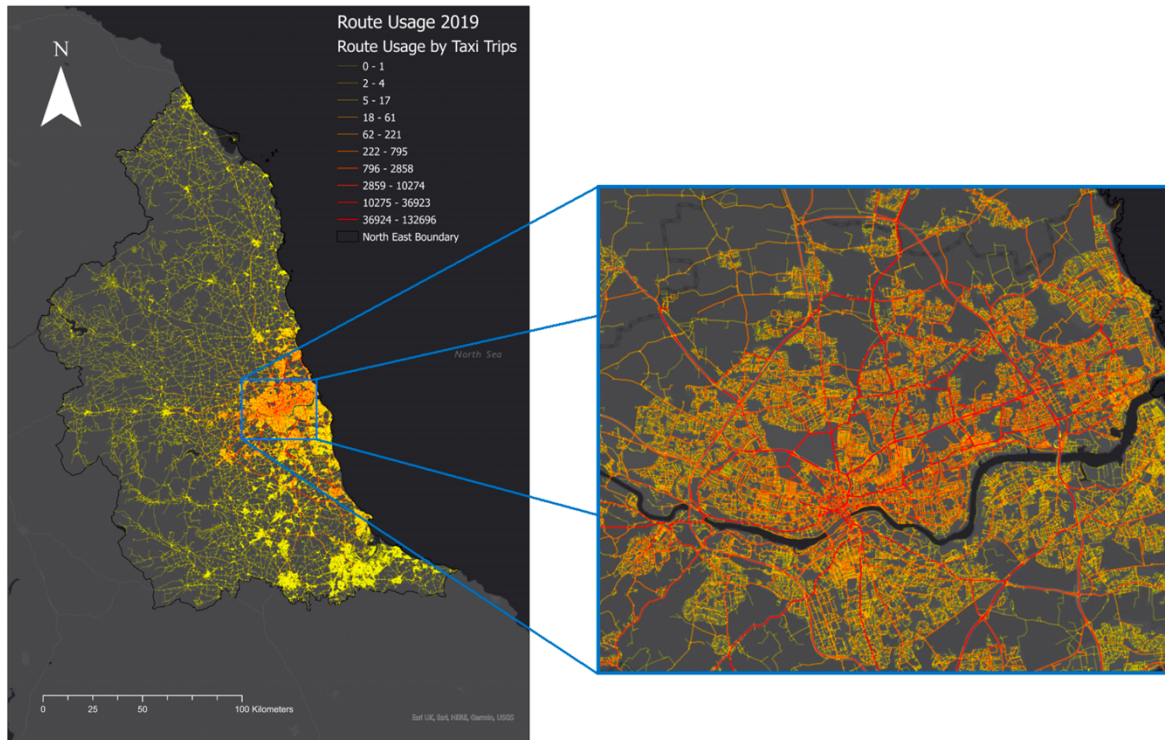
'When investigating the taxi fleet behaviour in 2019, the highest seven pick-up zones and highest eight drop-off destinations are located within the city of Newcastle-upon-Tyne despite operating throughout the entire North East region. This is similar to 2021.'

*(CDT Report, p.6)*

'High usage can be found on arterial roads leaving Newcastle City centre and Gateshead. Blyth, Blaydon and Stanley are also areas with high road frequency. Segments of motorway constituted nine of the top ten most travelled roads in 2019 and

eight of the top ten most travelled roads in 2021, thus displaying little variance between the years.’

*(CDT Report, p.7)*



**Figure 5.4** – Visualisation of Taxi Routes by their use frequency in 2019

The CDT’s subsequent multi-criteria decision-making analysis (MCDA) helped to identify and understand the viability of e-taxis through optimal location suitability for charging stations, considering the above travel trends. Results showed that:

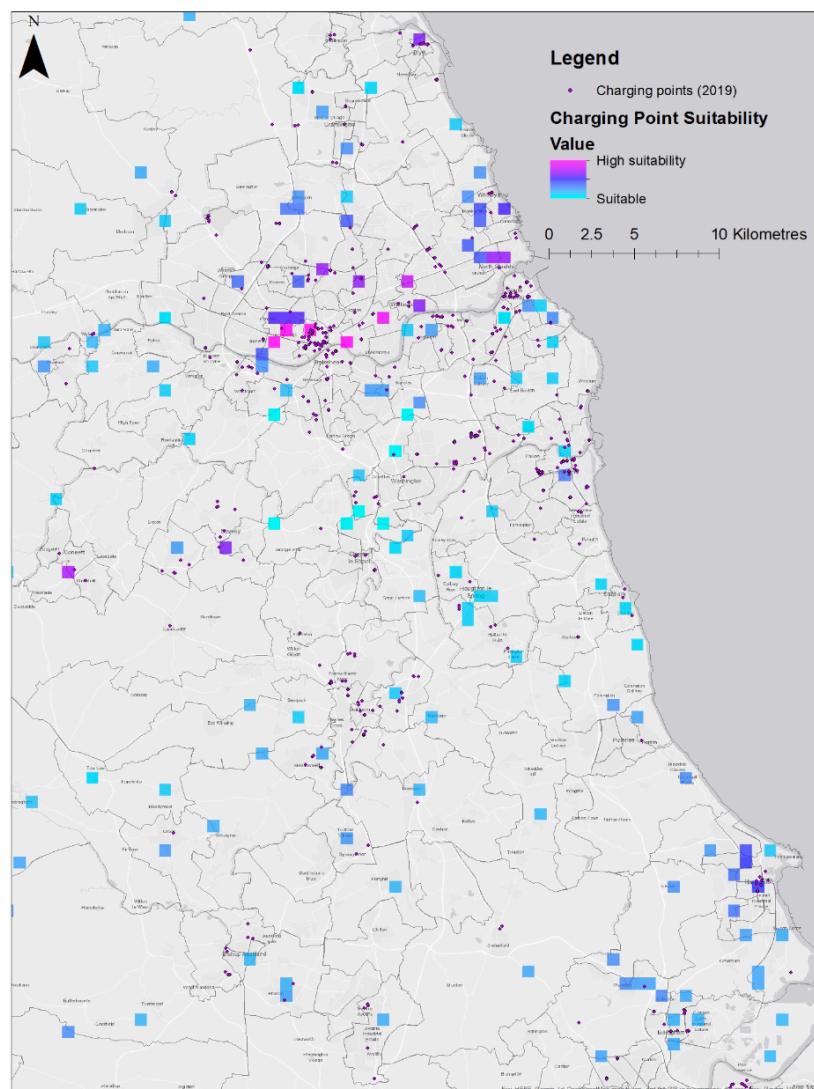
‘Despite Newcastle city centre having the most rapid chargers, the highest land value and some of the highest slopes, the results of the MCDA still recommended the centre as areas where EVC’s are most required. This is expected given that Central Newcastle is the economic and cultural centre of the North East. Popular locations such as Newcastle train station and Royal Victoria Infirmary generated high weightings within the MCDA. Results capture commuting behaviour; this is reinforced as established waiting locations for taxi drivers were prominent within the resulting layer for use in the MCDA’

*(CDT Report, p.10)*

‘Areas such as Blyth and Peterlee which do not have the same commercial reach were sites where taxis would benefit significantly from investment into ECVs’

*(CDT Report, p.10)*

These findings underscore the importance of using taxi-specific data, by highlighting the priority of increased charging infrastructure in both the city centre, followed by charging infrastructure in peri-urban locations like Blyth and Peterlee, given the significant clustering of taxi use in both these areas and current deficit of charging points. These ‘taxi-specific’ considerations distinguish the CDT’s findings research from Namdeo’s (ibid.) private ownership study in the North East which stated the need for further charging sites in peri-urban areas only, failing to recognise the high concentration of journeys in city-centric areas. Figure 5.5 below outlines the CDT’s suitability visualisation of new charging points across the operating areas of the firm:



**Figure 5.5**– Visualisation of New Charging Point Suitability across the North East

Other taxi-specific data emerged from the CDT’s analysis of the firm’s journey, data, concerning working patterns the drivers’ nature or working shifts. Findings highlighted how:

‘From a 24-hour period starting from 3am, the mean shift pattern is 12.5 hours in 2019 and 2021.’

*(CDT Report, p.6)*

‘Each month in 2019 and 2021, a number of drivers exceeded the average range of 250km for electric taxis [during their shift]. An increased range threshold of 400km significantly reduces the number of vehicles exceeding this range. Nonetheless, only in January 2021 would this range meet the distance requirements for all trips. However, January 2021 correlated with a national lockdown in the UK, thus is unlikely to be representative of a typical month.’

*(CDT Report, p.6)*

Since many drivers exceeded the average of 250km per average 12-hour shift, the importance of accessible charging infrastructure to complete working shifts if EVs are to be considered viable replacements for current petrol, diesel, and hybrids. Given the fleet size, scope of journeys conducted and requirement for regular charging, it is worth noting that in the North East, 40% of residential dwelling do not have access to charging, putting further pressure on the public charging network (Koncar and Bayram, 2021). Thus, expansion of the public network requires public funding in the immediate term (Funke and Burgert, 2020)

In summary, having identified taxis as having a high mileage use-case, exceeding current range capacity of electric vehicles during shifts and the need for an increase of strategically located charging infrastructure dictated by taxi demand and journey trends, the CDT conclude that:

‘It therefore becomes clear that a successful transition requires a concerted effort by both taxi fleet operators and local government to collaborate, as evidenced in Shenzhen, China (Li *et al.*, 2020, 2016; Clairand *et al.*, 2019). The government should contribute and enhance efforts of taxi companies by providing subsidies and incentives throughout the entire value chain, from manufacturing of infrastructure to the purchase of EVs.’

However, despite attempts by taxi firms to issue reports as a way of producing ‘public acquiescence in the face of deeply embedded structural problems’ (Alford, 1975, p.101), policy remains lacking in consideration of these findings. I now explore findings from my industry engagement.

### **5.5.2 Industry Engagement Findings**

The singular composite narrative from the semi-structured interviews with multi-level firm and industry stakeholders provided three key themes. First, the readiness of market-suitable vehicles for e-taxi use. Second, the lack of infrastructure provision to support e-taxi fleets. And third, building upon previous research through a private hire firm’s strategic management lens, to consider business modelling complications of taxi electrification, in line with my underlying Family Business Innovation model and use of Teece’s (1997) dynamic capabilities and a theoretical framework. In line with action research practice, what emerged was tangible business actions taken by the firm (the corporate rationalisers as per Alford’s (1975) framework)) partaking in this research in response to new policy imposed by the government (the professional monopolists, as per Alford). Furthermore, the findings explore the position of the micro-level community and gives this usually excluded group a ‘voice’ in research in relation to policy (drivers, employees, passengers).

To run an e-taxi fleet, private hire firms and drivers require vehicles suited to the operational demands and in the bespoke use case of a taxi (outlined in section 5.5.1), notably higher mileage and longer periods of use compared to private vehicle. From a purchasing perspective, the UK Electric Vehicle Database indicates the average price of an electric car is £53,865, ranging from £22,225 to £157,160<sup>43</sup>, compared to an average fuel-combusting vehicle

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<sup>43</sup> ev-database.uk. (2023). Cheatsheet: Price of Electric Cars in the UK [Website]. <https://ev-database.uk/cheatsheet/price-electric-car>

price of £26,752.29<sup>44</sup>. To show the effect of this cost discrepancy, the Department for Transport (DfT, 2023) in their 2023 annual National Statistics release revealed that only 6.4% of private hire vehicles are fully electric.

And although previous research points to cost-savings of electric charging compared to fuel consumption (Li *et al.*, 2016; Du *et al.*, 2020; Mahboob; 2021), recent geo-political conflicts and increasing energy prices (Kammer *et al.*, 2022) have led to the cost of rapid electric charging, preferred by taxi operators for minimal downtime, increase by 42%, making it less than 1p per mile cheaper than petrol according to the Royal Automobile Club (RAC)<sup>45</sup>. Private hire drivers own their vehicles or lease them from private hire firms or third parties. Participants believe that this increased asset cost complicates both models. First, individual drivers voiced how their earning capacity will limit their ability to independently purchase an asset of this value – in line with Patrick and Pybus' (2022) concern about recent energy price hikes and the resultant sustained financial pressure on UK households due to the wider cost of living crisis.

'I simply just don't make enough to afford something like that. It's a lot of money. I've got my kids to feed, bills are going up anyway at the moment, so there's not much left to put away in savings for a fancy electric car once I've paid all my outgoings. I know there's a grant available but it's pennies in comparison to what I'd still have to cover. I just don't have that kind of money. It really worries me.'

*(PC7, Driver)*

The drivers predict this will lead to an increased need for electric vehicle leasing from the firm or force them out of the industry and into unemployment.

Using the company vehicle asset register at the firm level, the firm's Heat of Fleet noted that the average value of firm-owned vehicles is £13,248.50. By purchasing new vehicles at scale and benefitting from economies of scale rates from vehicle manufacturers, and second-

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<sup>44</sup> Statista. (2023). Average car price in the United Kingdom (UK) by type 2019-2023 [Website]. <https://www.statista.com/statistics/1300610/uk-average-car-price-by-type/>

<sup>45</sup> BBC News. (2023). UK electric car sales up as battery costs fall. [Website]. <https://www.bbc.co.uk/news/business-63029226>

hand vehicles, private hire firms can offer a cost-effective lease model to drivers. This approach is speculated to break even within a two-year period and make a profitable return on their vehicle investment in the third, subject to any mechanical and maintenance work. The high mileage that taxis are required to fulfil, high-volume passenger use, and mechanical deterioration mean the firm ultimately places a three-to-four-year life span on its vehicles before replenishing the fleet with newer vehicles. Conducting a periodic analysis of assets and resources to determine whether a reallocation of resources would be favourable to a new business model as per Teece (2023), it became apparent that purchasing electric vehicles would be detrimental to profits and operations. First, financially, the capital required to purchase a set of electric vehicles is far higher than traditional fuel-combusting vehicles, and such a significant financial outlay would pose a financial risk to the firm (Scorrano, et al., (2020) Ouyang, Zhou and Ou, 2021).

‘We’re a family business and we don’t carry any debt. I was always told ‘Don’t buy what you can’t afford’ and so I’ve never borrowed money from the bank, no mortgages or leasing agreements on our fleet vehicles. We only buy if we have the cash reserves available. So, with the cost of electric cars being so much higher than traditional cars, I’m not sure we’d have the funds available to buy the same number of vehicles we do at present to replenish our fleet. You know, that worries me because that’s a core pillar to our business model in terms of operating a modern fleet for customers, minimising repair cost, our brand image and for attracting drivers.’

*(PC1, Managing Director at Private Hire Firm)*

Consequently, to make a financial return on more costly vehicles, both private hire vehicle-leasing firms interviewed outlined they would need to increase leasing costs – making it impossible for drivers to afford. The Operations Director of the firm suggests that increasing taxi fares could increase driver income, providing additional funds to the driver for leasing purposes. However, notes how this would be commercially detrimental to passenger demand and disincentivise private hire use, thus reducing mobility options available to the end-consumer. Kochhan and Sellmar’s (2016) research suggested a similar economic impact on the end-consumer (passenger) and how passengers are unwilling to pay more for a more



environmentally friendly service. Thus, once again, demonstrating how interests across the hierarchical structure vary and how dominant interests of one can be detrimental to another.

To find a commercial solution to this scenario, the firm began ‘sensing’ a new, not yet adopted leasing model to meet the needs of cost sensitive of drivers (Teece, 2023). A new strategy of ‘back-to-back’ leasing was proposed by the firm to generate enough income to ensure a return on investment. Simply put, the vehicle is leased across 24 hours across two drivers’ shifts, differing from the existing model where a singular driver uses the vehicle for their shift and then takes it home for private use too. However, it was noted by the firm’s Head of Fleet that there would be a ‘depot requirement’ with space to occupy hundreds, or potentially thousands, of vehicles at intermittent times between shifts, as well as increased labour requirements to inspect and manage vehicles during shift turnarounds, which at present, is the responsibility of the singular driver. Thus, without financial support in the form of grants or relief from the professional monopolises (government), this was not in the best interest of the firm (corporate rationalisers), resulting in an unsolved problem for the firm and the micro-level actors since profit could not be yielded (ibid.).

‘If we begin to invest in more and more electric vehicles and then have to rent them out around the clock to make the money back out of them, then we’re going to need a sizable piece of land to store them all – for cleaning, charging, maintenance. Or, because we operate across the region, we’d need three or four even for drivers on our fleet who are based in different parts of the North East. How much is that going to cost – I mean, the cost of the land, making it fit for purpose, employing staff to monitor the fleet, to manage sign-in and sign-outs of vehicles? How are the drivers even getting to the depot in order to pick up their taxi to start their shift? It would be a logistical nightmare and very costly. A problem we don’t have at the moment, and an added inconvenience to the drivers I think too.’

*(PC3, Head of Fleet at Private Hire Firm)*

Understanding the battery degradation of real-life operational taxis is fundamental to private hire firms who lease vehicles, enabling them to predict an appropriate vehicle life cycle to base their financial model around. According to Tian *et al.* (2017, p.334), it is ‘difficult to model the battery ageing process due to the lack of battery capacity data, while the process is

crucial for understanding battery degradation phenomenon'. Thus, vehicle life-span and maintenance needs are unknown, complicating creating a suitable vehicle leasing model. The firm's Head of Garage Services points to this as a further complication of introducing electric vehicles.

'Well, we've never really worked with electric vehicles at scale before. In fact, we don't even get many on an individual level either. So, we're a bit blind about batteries and how long they last after being worked as a taxi in the North East. Imagine going up and down Dean Street and Grey Street from the Quayside, and in the cold for six months of the year. They had to stop the electric buses on that route because their batteries couldn't handle it.'

*(PC3, Head of Garage Services at Private Hire Firm)*

The excerpt highlights that indirect mechanical considerations of introducing new vehicle types to a fleet will affect the firm's business model, particularly the retraining and development of mechanics' knowledge to suitably handle electric vehicles. According to Teece (2023, p.115), 'the long-term viability of a firm requires not just the amassing of a war chest and clever strategic positioning, but also a continuous learning process', 'equivalent in importance to assets and resources' (ibid., p.116). In addition, investment in appropriate infrastructure and equipment to ensure health and safety compliance. These changes would require substantial financial investment and likely cause operational downtime whilst employees are sufficiently upskilled and equipment is installed, highlighting how policy can disregard deeper structural issues in education, training and skills.

Another aspect of mechanical complexity is range anxiety which is 'a concern that an EV might not have enough driving range to reach the desired destination due to its limited battery size' (Pevec *et al.*, 2020, p.1). This key concern was voiced by various participants. The high-mileage nature of an operational taxi compared with the lack of sufficient charging infrastructure are key contributors to the degree of anxiety. First, a dispatcher highlights how the operational implications of range variation (meaning that charging frequency and time become a determining factor of vehicle availability) could cause fleet depletion, weakening the

ability to service passenger demand. To exemplify their concerns, the dispatcher posed scenarios regarding dispatching a journey to the closest available point and utilising a traditional fossil fuel vehicle against the new EVs which I speculated to have insufficient charge to fulfil the mileage requirements of the same trip. Given that the firm transports clients locally, regionally, and nationally on demand, understanding vehicle charge at the point of dispatching work is crucial to avoid the above scenarios.

‘At the moment, if a car gets a long-range job and doesn’t have fuel, they can get to a petrol station and fill up within minutes and be back on the road again. But, because the electric cars take so long to charge, it makes the driver inactive, reducing the number of cars we have available to send work to and I think that’ll make us more inefficient and run late’

*(PC6, Dispatcher at Private Hire Firm)*

Second, the legal and licencing consultant voiced concerns about how a lack of vehicle range, or a lack of charge, could present licensing complications for drivers.

‘It is a condition of their licence that drivers, as principal, complete a fare once they enter into contract with a fare-paying customer. If they enter into such contract and fail to complete the journey because of low battery, which is distinctly different to a mechanical breakdown, this would constitute, I imagine, as a breach of their licence. Could drivers use battery charge as a mechanism to avoid fulfilling certain journeys they don’t see as worth fulfilling? And, I wonder how local authorities would police this.’

*(PC14, Legal and Licencing Consultant)*

To address the real-life organisational and operational issues in light of government policy, the CDT report and the salient outcomes of semi-structured interviews, the firm established a study action group of internal and external members to further explore new electric technology and trends. To better identify new business opportunities, the study group has and continues to proactively track and monitor new electric vehicles and infrastructural developments that could impact the organisation. Therefore, the study group is ‘entrepreneurially alert’ (Kirzner, 1997; Teece, 1997, Brown, 2007; Tang, Kacmar and

Busenitz, 2010) and focuses on new ways of thinking for planned changes in operational processes and technological innovation (Repenning *et al.*, 2018).

The firm, upon the advice of the study action group, seized the opportunity to redeployed resources to implement a new business model through new dispatching engine technology, capable of analysing a vehicle's charge status for efficient dispatching purposes (Teece, 2023). This change will help with operational risks which otherwise would become inefficient and impractical. The study action group has researched the market for a suitable software development house to partner with and has since engaged in a collaborative project to solve this problem.

‘Inevitably, we are going to have to find a way to factor vehicle charge into our dispatching algorithm. How we do that is challenging. Our dispatch engine can currently analyse journey data for the upcoming 120 minutes, for example, and dispatch effectively. But how we can predict charge rates? It's not like fuel which we can predict future consumption on basic mileage, there are so many more topographical factors that can affect battery consumption which is unknown during that period of time – weather changes, crossing more challenging terrains, for example. We are beginning to speak to vehicle manufacturers to find the best way to establish the most accurate data from the battery to feed into our dispatch system, making the data available to the operators as accurate as possible’

*(PC13, Development Lead of Global Taxi Dispatching System)*

In essence, the firm has developed a ‘community of practice’, a multi-organisation collaboration bound by a common interest and goal, learning from one another during the process (Kilbride *et al.*, 2011; Wenger *et al.*, 2002). In this case, the software developers are gaining taxi insights, and the taxi firm is understanding the opportunities and limits of software in pursuit of this common goal of taxi electrification. Referring to Alford's (1975, p.xiii) ‘strategically structured interests’, this is an example of two corporate rationalisers collaboratively investing and strategising to propose other effective solutions for the micro-level community population to adhere to macro-level legislation that industry participants described as unrealistic and impractical.

To trial these technological advancements, strategic investment was made by the firm to purchase and operate a range of hybrid and electric vehicles - as part of the action phase of the research-led AR cycle, outlined earlier in Figure 1. Data from these trials was also harnessed to produce lobbying documents and an e-taxi electrification proposal presented to North East regulatory bodies. The participant firm recommended a collaborative project between meso (private hire firm) and macro (governmental) stakeholders to best serve the micro-level community (drivers and passengers), exemplifying Teece's (2023) view of how firms with dynamic capabilities 'instead of governing what the firm is currently doing, they involve deciding what the firm should be doing in the future, ensuring access to the resources the firm will need, and implementing the organizational design that will be best suited' (ibid., p.119).

The firm's proposal noted how there remains on-going macro-political tensions between different governmental authorities (Alford, 1975), rendering finding consensus across the firm's operational region more difficult. Despite this, the plan outlined a collective investment strategy and use of local authorities' land to create a network of taxi-suitable charging container hubs in critical locations such as Newcastle, Blyth and Peterlee (as recommended by the CDT analysis of real-life taxi data and illustrated in Figure 5.4).

'I think it's imperative the business engages in a collaborative project with other local stakeholders, namely the local authority and perhaps the university too. The reality is that the firm does not have the financial resource, but does have expert industry knowledge, that is really needed to put a comprehensive solution in place. I cannot be done alone. Everybody needs to be invested and singing from the same hymn sheet.'

*(PC15, Business Advisor)*

The firm also proposed that all charging hubs be exclusive to taxis since previous studies have demonstrated income losses for drivers of e-taxi due to queueing delays whilst charging (Jung *et al.*, 2019). The local authorities have declined to engage with proposals due to funding concerns and budgetary restraints from the central government – highlighting the differing interests and a lack of priority cohesion between actors in the hierarchical structure. This outcome of action research serves to underline the disjoint between government policy

(monopolists) and industry (corporate rationalisers). To exemplify this dislocation between actors' interests once more, participants state:

'They've got it all wrong. They're putting clean air zone<sup>46</sup> restrictions in place on an industry that can reduce the use of private cars – combining four passengers travelling in four vehicles into a singular taxi to reduce emissions. We need to encourage the use of taxis to reduce congestion on the roads by encouraging people to travel in a shared singular vehicle. Instead, they're [local authorities] putting barriers up in the taxi trade, discouraging new drivers from entering and that's causing a public safety problem – as people are being left stranded streetside when public transport isn't operating at night times or in places there's not the public transport network. I suggested this to the council, but they made a flippant comment about needing to fill parking spaces in the city centre with private cars – which is obviously a huge revenue generator for them. It begs the question, what is their priority - money or actually achieving net zero?'

*(PC17, Managing Director at Private Hire Firm in another major UK city)*

'The clean air zone is well welcomed. We need to reduce emissions in the city centre and by supporting taxi drivers to upgrade their vehicles to be less polluting with grant funding, we can achieve that. Also, we need to continue to promote walking and cycling which also has wider health and wellbeing benefits for active travellers. And, we have seen the fantastic new edition of electric scooters too, to navigate the city centre. So with all these green modes of transport combined, we should see a drastic reduction in harmful emissions.'

*(PC12, Managing Director of Net Zero Consultancy)*

'The grant scheme being promoted by our local council serves little purpose in my eyes. It's all smoke and mirrors as it's been designed in such a way as to discourage anyone from ultimately taking it out. It's only available when you buy a vehicle from a motor dealer, and not through auctions or private sellers, which is the most common practice in our industry. So, you're now having to pay the highest retail price which means there's no real financial assistance at all. And even though it's about to go live, the clean air zone, the council still has not sent a single letter confirming eligibility requirements and explaining the process and the conditions that would apply to the making of a grant. So, I don't think this grant is serving the industry as well as they'd like you to believe.'

*(PC1, Managing Director at Private Hire Firm city)*

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<sup>46</sup> The Clean Air Zone (CAZ) charges for certain vehicles to enter the zone, but will not affect private cars or motorbikes. For those who operate a taxi, van, bus, coach or HGV, there may be charges if the vehicle does not comply with government emissions standards. (See: <https://www.newcastle.gov.uk/our-city/transport-improvements/transport-and-air-quality/newcastle-and-gateshead-clean-air-zone>)

To summarise, my study highlights key concerns, at both the meso and micro level of Alford's (1975) framework of interests and power, surrounding the current government policy to electrify taxis, such as the asset and running costs of electric vehicles, the complexities of introducing vehicles that require specialist repair and maintenance infrastructure, and range anxiety.

Financially, the purchase cost of electric vehicles is highlighted as a concern to both the firm and drivers (meso and micro actors), specifically the ability to finance new vehicle purchases, the potential reliance for drivers to lease and the consequent business modelling complications of leasing higher-value vehicles. Concerns around range anxiety were also expressed – underlining a lack of charging infrastructure and suitable technology to include vehicle charge in its multi-factor algorithmic dispatching. In all cases, there was an impact on micro-level passengers too, in the form of reduced access to affordable transport.

Concerns were also raised by participants regarding the unknown elements of using electric taxis, supporting Tian *et al.*'s (2017) conclusion that it is difficult to model and understand battery degradation given the lack of battery data accessible in this specific use case, making it unknown.

Similarly, firm and micro-level participants (employees) identified a lack of knowledge, training, equipment, and qualifications to safely repair and maintain electric vehicles due to these unknowns. However, applying this critically to Alford's (1975) theory of structured and political interests, the interests of micro-level stakeholders are repressed and wield little power. Using comparative studies on healthcare that also cite Alford's framework, it is highlighted how the healthcare system similarly fails to represent patients' experiences and interests (Lupton *et al.*, 1998; Wood, 2000), with this group being referred to as the 'ghost in the machinery' (Klein, 1989, p.77). In both cases, these actors represent the public and community whose views, albeit potentially valid, have 'no social institutions or political mechanisms' to

‘ensure that these interests are served’ (Alford, 1975, p.15). Thus, they rely on more powerful corporate rationalisers to challenge dominant interests on their behalf.

To drive change, these insights and findings demonstrate how corporate rationalisers aim to leverage action research and their dynamic capabilities (Teece, 1997, 2007, 2012, 2016, 2023) for their best interest. Through the establishment of a ‘community of practice’ with technological providers, together with active investment in physical assets, infrastructure and entrepreneurial management, actors in the corporate landscape are able to drive transformation (Wenger *et al.*, 2002; Kilbride *et al.*, 2011; Teece, 2023). In doing so, industry-specific data also informs proposals and development of alternative policy. Critically engaging with Alford’s (1975) theory, this amalgamation of proactive action exhibits that firms are not passive actors, but active political entities that wield their structural interest and power (industry knowledge, access to data and relationship with micro-level stakeholders) in pursuit of their commercial (internal) and climate policy (external) objectives that align with their interests (Teece, 1997). Their ability to understand industry-specific implications, experiment with alternative approaches and propose alternatives to policymakers is, in essence, a manifestation of Alford’s (1975) theory in practice. Further, by closely examining the application of this theory to the more consumer-focused, corporate private sector, the findings offer additionalities that have not been considered before through its application to the public healthcare system. First, I recognise that privately owned companies acting as corporate rationalisers have more control over the resources they dedicate to challenging monopolising actors, for example using company profits to lobby and invest in Action Research outputs. Another development offered is the inaccessibility of private company data to government (unlike readily available public sector data), contributing to a misunderstanding of industry activity and actualities that impact policy and decision-making.



## 5.6. Conclusion

To improve understanding of future innovation in the UK private hire and taxi industry, this chapter discusses the implications of electrification of taxis in this marketplace. Applying Alford's (1975, p.xiii) 'strategically structured interests' framework to the UK private hire and taxi industry, the findings suggest that the government hold dominant interests and power regarding the policy for the electrification of taxis. To establish, in respect to my guiding research questions, whether the interests of the UK private hire and taxi operators are being served by the current UK governments Net Zero Strategy, it appears the government's stance is disjointed from the operational and strategic interests of private hire stakeholders at the meso-level, which triggers implications for those at the micro-level (i.e., customers, drivers, etc.). Although meso-level actors have harnessed their dynamic capabilities (Teece, 1997) to engage in independent and collaborative projects to better understand and contribute to taxi electrification policy-making, the failure of national government to neither directly engage with nor include this industry in its central NZS has ultimately led to a lack of interrelationship between hierarchical structures required for policy implementation success (Sabatier and Mazmanian, 1979; Cerych and Sabatier, 1986; Weidenbaum, 1980; Zardkoochi, 1985; Gornitzka *et al.*, 2005; Keim and Hillman, 2008; Dunlop *et al.*, 2020; Glynn and Cooper, 2022; Kuzemko, 2022).

To bridge this gap, various theoretical contributions emerge. First, in applying Alford's (1975) theory to a new industry sector and engaging with a private hire firm (corporate rationalise) to identify the actors at play and their structured interests. The findings align with Alford's central argument, and existing literature on current government climate policy inadequacies (den Elzen *et al.*, 2019; Ambrose, 2023; Li *et al.*, 2023), market reforms in this industry are also likely to fail, principally due to a lack of understanding and representation of embedded structural interests within the marketplace. I see similar evidence by applying

Teece's (1997) dynamic capabilities to this macro level. Unlike at firm-level where these capabilities have been deployed effectively, it appears also that the application of dynamic capabilities does not extend to this macro-level in this case, since policymakers have been unable to predict the business model responses and implications of this Net Zero Strategy.

Alford's (1975) theory is also advanced by applying it to a fast-moving consumer market in the private sector. The novel considerations concerning the influence of corporate rationalisers and the relationship between corporate rationalisers and monopolisers, and how these differ between the public and private sectors due to the latter sectors' access to independent resources and data and the reversal in roles between professional monopolists and corporate rationalisers. Whereas the government are the corporate rationalisers in the public sector, they are the professional monopolists in this case, with ultimate control over policy direction. Second, further expanding previous research focusing on the technical discussion surrounding electric vehicles, such as electric vehicle charging and infrastructure (Ko and Shim, 2016; Zou *et al.*, 2016; Tseng *et al.*, 2019; Hu *et al.*, 2021; Bauer *et al.*, 2021) by focusing on the UK private hire and taxi market and their specific use-case of electric vehicles. Third, this study also reveals the relevance of existing technical theory but furthers prior research (Zou *et al.*; Ko and Shim, 2016; Tseng *et al.*, 2019) by presenting an alternative analysis through a strategic management lens by applying Teece's (1997, 2007, 2012, 2016, 2023) dynamic capabilities to this context.

The findings also contribute critical insights for government policymakers to reflect upon and re-assess the viability and market appropriateness of its existing policy. Again, in response to my guiding research questions, I establish how the firm also contributed to policy-informing using action research. Through engagement with the CDT, the creation of a study group and making active investments in infrastructure, the outcomes derived from combined findings from interviews with industry stakeholders and the firm's action research, inform

policymakers of the industry specific considerations concerning the electrification of the UK private hire and taxi market, validated using over 8 million sets of unique real-life taxi data.

Having identified disparities between interest groups' representation in policy, the results begin to bridge this gap between government and industry in the private sector by presenting previously inaccessible data, views and insights of interest groups currently underrepresented in policy. Thus, prompting calls for the UK government to reconsider the practicality of its current approach, the ability of the industry to comply effectively with the regulation and the lack of a centralised national taxi electrification policy. Furthermore, Action Research demonstrates the importance and need for shared data to aid businesses and policymakers.

In short, the provided insights would be further enhanced by analysing real-life taxi data and conducting action research across a series of other private hire firms with varying fleet sizes to assess whether the findings differ across the sector to highlight replicable business models and strategic management implications for future sustainability in this industry.

## **Chapter Six – Study Three: Balancing Tradition and Innovation: The Emotional Journey of a Family Business Successor.**

### **6.1 Introduction**

Family businesses are a dominant force in global markets (Ramadani *et al.*, 2017; Fendri and Nguyen, 2019, Marques and Couto, 2020). However, around 70% of family firms fail after one generation (Gené and Gallizo, 2021), with the average life span of a family-ran firm being 24 years (Family Business Center, 2010). Academics point to intergenerational succession as one of the most difficult, complex, and challenging events for a family firm (Miller, *et al.*, 2003; Song *et al.*, 2022), that affects the longevity and survival of family firms. Notably, the challenges succession poses become particularly prevalent during the transition from second to third generations (Lambrecht, 2005). Stalk and Foley (2012) reinforce common belief in this phenomenon through linguistic references globally: ‘fu bu guo san dai’ (wealth never survives three generations) in Chinese, ‘pai rico, filho hobre, neto pobre’ (rich father, noble son, poor grandson) in Portuguese and ‘dalle stalle alle stelle alle stalle’ (from the stables to the stars and back to the stables) in Italian.

As a third-generation family member and successor to a family business, the topic of family business and succession planning is therefore of great interest and significance to me on a personal and commercial level, for the continuation of my family firm. By reflecting on my personal experiences through engaging in a deep exploration of personal notes, journals, memories, and reflections, I explore this notion of third-generation failure (Lambrecht, 2005; Stalk and Foley, 2012; Kalra and Gupta, 2014) and offer a rich, nuanced, and intimate analysis of the intergenerational transition of my family business from the perspective of the successor. The purpose of this research is to increase my self-consciousness and self-awareness of what is it like to be part of the successor of a family business, whilst navigating it to success beyond the third generation. Although, I understand the uniqueness of each family firm and the

inability to offer prescribed solutions, I intend to provide insight into my lived experience as a third-generation family member to permit this research to inform others in a similar position. I also contribute to innovation and family business theory by offering a view of the interplay between tradition and innovation in family firms from an autoethnographic position, revealing deeply personal experiences and emotions which would typically be inaccessible to a researcher (Prichard and Trowler, 2003; French, 2009; De Massis *et al.*, 2016). In addition to contributing to literature in this way, ultimately this research serves as a personal opportunity to engage in an intimate transformative process, where I gain clarity on how my own family business navigates through intergenerational succession, heals from past experiences and illuminates the path ahead of me, as I begin to steer the business through change, in view of the electrification and digitisation of the private hire and taxi sector (Keles, 2022).

To guide this study, I ask: 1. What are the practical and theoretical implications of balancing personal ambitions, family and commercial success for third-generation successors in family firms? 2. How are the experiences of the third generation impacted by the actions of the incumbents and other historical leadership? And 3. How does that affect the interplay between tradition and future innovation?

Given the intimate nature of family businesses and my inherent interest, I employ an autoethnographic approach for this study due to my natural affinity and access to the subject area (Sambrook and Herrmann, 2018). This method combines personal insights and commentaries with comprehensive scholarly analysis to offer a well-rounded and holistic analysis, whilst offering novel contributions to this subject area, using poetry as a ‘window into the heart of human experience’ (McNiff, 2017, p.83). This often first-person, autoethnographic and artistic account creates an interplay between entrepreneurial legacies, the emotional and psychological impact on successors. The implications of this study are primarily personal – by enhancing my understanding of my personal experiences working in a transitioning family

firm, it will review and inform my family's succession planning and strategy. However, these implications also extend to various stakeholders. I offer other successors the opportunity to refer to this case as a comparative reference point for their own business and succession experiences. For academics, I contribute to business literature by demonstrating that there is viable scope to extend methodological repertoire in this field, through my use of autoethnography and poetry to capture the multidimensional nature of family business and succession planning. Additionally, I continue to apply Teece's (1997) dynamic capabilities model as an underpinning investigative framework. Given that reconfiguration and transformation are inevitable for transitioning family businesses, I will hone in on the leadership and transformational elements of Teece's (1997) framework in this study.

To provide context for this Chapter, an overview of my family business is provided first, followed by a summary of my personal involvement within the firm. Then, a literature review of intergenerational family business succession is provided to enable a critical analysis of my own experiences. The findings garnered from these experiences are discussed after outlining the methodological approach taken for this study.

## **6.2 The Business Background**

Blueline Group is a family-owned and operated business that specialises in providing taxi and transportation services. With over 10 million passengers transported every year, the firm is one of the most-recognised private hire operators in the United Kingdom among industry leaders. Blueline's booking platforms include telephone, app, web-based services and custom corporate booking portals, making it easy for riders to move around the region. As the only private hire operator in the region with licences from all local authorities, Blueline's transportation covers a vast geographic area and caters to a diverse set of customers – including the general public, corporate clients and local authority-funded support transport.

The family business was founded in 1958 by Colin and Audrey Shanks. Having returned from World War II to London before relocating to Newcastle-upon-Tyne, Colin bought an Austin Morris model car, which he used as a taxi to generate additional income. Over time, this singular 'Blueline taxi' gained a reputation for providing a reliable taxi service, prompting the addition of more drivers and vehicles to the fleet – including multi-seater buses and luxury cars for weddings and executive events. In 1978, the company transported Diane Disney around the North East of England, and parts of Scotland, whilst Disney filmed two classic films.

After the demise of the founders in the 1990s, the second generation took control of the business. At this stage, the second generation inherited a firm that had a fleet of around 80 vehicles. Since then, the company has undergone a comprehensive digital transformation, during which time the second generation spearheaded the digitalisation of the company's operational technology, driving growth, and expanding the fleet to approximately 1,000 private hire vehicles. The company now completes an average of 85,000 journeys per week, which equates to annual metered fares exceeding £31.2 million. Aside from its taxi services, the family firm has expanded the business to include a considerable property portfolio of over 73 commercial and residential units in the North East of England, a Ford-authorised garage, and a digital advertising arm. Notably, Blueline remains family-owned and controlled at the time of writing, with five third-generation family members working with the business in the following positions: Finance Director, Operations Director, Head of Drivers, Executive Transport Coordinator and Senior Mechanic.

### **6.2.1 Personal Involvement in the Family Business**

From a subjective and personal viewpoint, my involvement in the business has felt ever-present in my life. Growing up, I was surrounded by the family business, which sparked my curiosity and inspired me. Having been fortunate to interact with thousands of company employees and witness hundreds of business meetings, I became fascinated by the various

elements of the business I was exposed to at a young age from managing finances to customer service. I believe these unique and early exposures imprinted a foundational industry knowledge and emotional intelligence awareness during my childhood (Sieger, Akhter and Chirico, 2023).

After graduating from university and eager to contribute my skills and knowledge to its success, I began working as a Business Development Executive, where I was able to practice sales, marketing, finances and strategy, for example. Having established myself within the business over time, I was promoted to the role of Finance Director. This was a significant personal and organisational change as I became Responsible for all commercial and financial activities of a North England taxi operator that fulfils 4.42 million rides annually, setting the strategy and motivating, scaling and managing the commercial and financial teams across the Group to implement this. I control the Group's profit and loss and report Group financials to the family Board. My focus on operational excellence and financial management has resulted in significant achievements, including contributing to record annual revenue of £54.9M in FY22-23, creating employment for over 1,100 people in the region. Transformed the organisational structure to accommodate growth through the acquisition of fourteen SMEs across various verticals, reviewing and aligning each acquired entity's financial and operational strategy with the Group's vision. To do this, I led the Group's restructuring, including transitioning the Group from its previous trading position as a partnership to a more comprehensive and intricate group of 21 active trading companies, each having its own unique corporate and banking structures. This has been a complex undertaking, which required significant coordination and collaboration across various functional units. To do so, it required assessment and realignment of the Group's business operations, corporate governance and risk management position to ultimately produce a more robust and effective structure that aligned with the firm' strategic objectives. My approach has been both pragmatic and methodical to



ensure a Group structure is designed and implemented that improves operational activity and supports succession planning and future transitioning of the business. To reach this pragmatic and methodical approach, I have been informed and inspired by, reflected upon and taken action on family business publications that I have read throughout this process. Most notably, I frequently revisit Harvard Business Review's Family Business Handbook (Baron and Lachenauer, 2021) which includes frameworks, practices and tactics from a multitude of family businesses. And, as a result, I have decided to directly employ certain elements arising from their research, such as finding a confidant outside the family, creating entry rules for family employees and designing a successful family office model.

Upon introspection, being raised surrounded by the family enterprise has engendered within me a profound appreciation for enterprise, a strong work ethic, comprehensive industry knowledge and a desire to engage with wider business literature, which all continue to prove invaluable in my current professional capacity as a Group Director.

### **6.3 A Literature Review of Intergenerational Family Business Succession**

Family firms are a dominant force in global markets (Ramadani *et al.*, 2017; Fendri and Nguyen, 2019, Marques and Couto, 2020), creating wealth and employment, and even in times of crisis and instability, assuring sustainable growth (Astrachan and Shanker, 2003) which is vital to the development of national economies. Family firms often outperform non-family firms because of their unique structure and set of strengths. First, to define a family firm, I refer to Astrachan and Shanker's (1996) definition of a firm that has different generations of family members owning or managing the business. This family involvement in the business is key to understanding its opportunity to benefit from competitive advantage. Family firms have a long-term orientation and aim to build a strong business and wealth generator that will sustain for the benefit of future generations. To achieve this longevity, family firms are not focused on short-term results, and instead promote long-term strategies that are less sensitive to economic

cycles (Daily and Dollinger, 1992), meaning that they do not have to compensate for poor short-term economic pressures by selling assets, retracting from investments or reducing human capital, resulting in a more agile organisation (Fendri and Nguyen, 2019). But, despite the ability to set strategy that achieves longevity, the success of this often depends on succession and the intergenerational transition of the entity. The succession is defined as ‘the mutual adjustment between the role of the founder and the next generation’ (Marques and Couto, 2020, p.44) and is characterised as an evolutionary process with multiple stages during which the involvement of the successor increases whilst the involvement of the founder diminishes, culminating in the total transfer of power between the founder and the successor (Jayantilal, 2016). The complex nature of intergenerational succession is multi-faceted and well-documented, especially for the third generation (Lambrecht, 2005; Stalk and Foley, 2012; Kalra and Gupta, 2014) since the growth in family members and shareholders adds additional financial, emotional and strategic complexities (Gersick *et al.*, 1997), such as the pressure on the business ‘to provide a steady flow of generous dividends to cousins not making careers in the company’ (ibid. p.199). The biggest challenge in the third generation is, therefore, to make structural changes that manage this level of added complexity.

To begin the succession process, the incumbent must accept their own mortality, which is a demanding psychological process (Marques and Couto, 2020). Therefore, in many cases, succession is neglected, or significantly delayed, due to the incumbent’s attachment to the firm (Bachkaniwala *et al.*, 2001), and the relinquishing of control that triggers a sense of personal loss in terms of status, power and motivation. This is particularly challenging since many founders and incumbents view the family firm as an extension of themselves, making the process deeply personal (Lansberg, 1999). If the succession process is neglected and the predecessor generation dies, 'there will be a vacuum on the leadership of the family business and competition between family members or external parties can take place to fight for an

empty power position' (Fuad *et al.*, 2018, p.23). The process can also be ignored with sibling partners attempting to 'install a structure very similar to their own' with 'cousins who can work together and continue the same pattern of shared decision making that they have been able to establish' (Gersick *et al.*, 1997, p.199). But this synergistic approach is difficult to replicate and likely inadequate due to the changed circumstances and larger family group (*ibid.*). If the founder/incumbent accepts the succession process, another problem can arise if they become a 'generational shadow' (Davis and Harveston, 2001), whereby they try to retain significant power or fulfil their original role after the transfer has been completed, in contrast with Jayantilal's (2016) staged succession model which outlines the importance of a total transfer to the successor. The interference from senior generations, intentional or not, can impact the self-confidence and sense of control of the younger generation, leading to resentment towards elders through a feeling of being subordinate or economically dependent on their parents and grandparents (Gersick *et al.*, 1997). Although not my lived experience, this sentiment can particularly heighten at third generation since the business is more well established, leading offspring to grow up 'in the pervasive shadow of the family company, which inevitably becomes a force in their lives, shaping their own aspirations' (*ibid.*, p.200), and therefore warrants consideration for experiences beyond my own.

To aid a successful transition, many families establish rules and codes of conduct that act as a governance structure to guide the family in the next generation, promoting continuity and evading potential conflicts (Marques and Couto, 2020). Family firms have to decide whether to continue with family management, or to professionalise management by hiring externally. Although hiring family involves the complexity of the institutional overlap and interconnection between business needs and individual desires (Helin and Jabri, 2016), Gené and Gallizo's (2021) results show that family firms prefer the successor role to be assumed by a family member. Despite the potential of being underequipped with the necessary skills to

fulfil the managerial role, families can self-educate and share firm-specific knowledge that equates to a greater understanding of the business using previous collective experience to inform and support successor (Ala-Laurinaho, 2017; Parada and Dawson, 2017), meaning their skillset deficit is compensated by family and firm-specific knowledge and skills (ibid.). For third-generation family firms, choosing the successor from a larger pool of cousins can cause disengagement, disentanglement and resentment at feeling disadvantaged both professionally and financially for candidates not chosen as an appropriate successor to lead the firm (Gersick *et al.*, 1997). Subsequently, branches of the family can then split. Once the successor is chosen however, Fendri and Nguyen (2019) underline how the process must be afforded adequate time to allow the successor to fully acquire the necessary technical knowledge, to be accepted by employees, to build relationships with all external stakeholders and allow the incumbent to gradually retreat from their role as not to destabilize the transition. It must be noted, however, that despite formal succession initiatives, such as advisory boards, governance structures, auditing and family education, most guides and frameworks that promote the successful transitioning of a business ‘follow a recipe-like mechanistic paradigm neglecting the complex dynamics of succession’ (Leib and Zehrer, 2018, p.76). Thus, should be treated with caution given the unique nature of each family business and dynamic, which is exemplified in my own business and experience.

Once the business and the total control of its running is transferred to the successor, the business can experience a change in profile and growth due to its management strategy, which is dependent on the ‘relationship between an organisation’s past and present’ (Miller, *et al.*, 2003, p.514), be it an over-attachment to the past, rejection of the past or a merging of both past and present. To demonstrate these changes, Miller *et al.* (2003) group successions into three categories. First, conservative successions are defined as those whereby the successor is overly reliant on the predecessor and their legacy, the strategies they employ and the values

they represent reflect those of the past – resulting in stagnated products, a rejection of free-thinking and depletion of market share. Second, wavering successions have the desire to implement their own approach but respect the policies and operating practices of the past, which results in indecision concerning what direction to take. This results in time and resources being wasted, a lack of consensus and unification and indecision. Third, rebellious successions indicate when the successor rejects the legacy and historical practices/traditions of the past, encouraging significant changes to the business offering, upheavals in the management team and reestablishment of company values and its vision.

Whether successions are conservative, rebellious or wavering is determined by factors such as the experience gap between the incumbent and successor, unclear succession plans, unprepared successors and dysfunctional family relationships, and manifested in the business through extremes of change vs. inaction, strong conflicts vs. over-democratisation of decision-making and chaos vs. order. Regardless of which path is taken and my own lived experience of succession, I acknowledge the problematic nature of intergenerational successions, driven by the crux issue of the interplay between past, present, and future. De Massis *et al.*, (2016) refer to this complex relationship as the innovation paradox, summarising it as a tension between the need to maintain tradition and the predecessor's vision with the desire to innovate and adapt to the needs of the future, whereby the former constrains the latter (Erdogan *et al.*, 2020). On the contrary, Suddaby and Jaskiewicz and Suddaby (2020) affirm how tradition can be used to manage strain and offer stability during periods of change. Rather than being seen as a limiting construct, it can act as a resource to ‘mobilise stakeholder commitment to a shared past and identification with a common mnemonic project’ (p.238). I argue that by applying this contemporary lens to tradition, families can create firms whose entrepreneurial and innovative spirit and structure are pillars of continuity in tandem with change, allowing for the successful continuation of the firm. To harness tradition in this way, Fivush (2011) and Fivush *et al.*

(2011) refer to the cognitive practice of autobiographical memory through which one creates a narrative of the self-using personal memories and experiences, to provide oneself with a coherent sense of self.

In summary, family businesses are inherently complex organisations due to the intricate and interweaving web of family and business. This added involvement of family within the organisation offers both strengths and weaknesses. At the crux of this passage is the interplay between past, present, and future. The interrelationship between the past and the succeeding generation can be steered by tradition, for either positive good or as a constraint. To use tradition to help with continued growth, innovation and conflict mitigation, for example, successors can harness tradition through autobiographical memory, which aids intergenerational reflection, communication and awareness of self. I use this view to challenge the pessimistic outlook (Lambrecht, 2005; Stalk and Foley, 2012; Kalra and Gupta, 2014) on the survival of third-generation successions of family firms, demonstrating what tensions practitioners should be mindful of and approaches that can be taken to drive family firms forward past this point. This leads to introducing my methodological approach.

## **6.4 Methodology/Autoethnography**

### **6.4.1 Autoethnography**

Autoethnography has become an established qualitative method of inquiry involving a deep and personal exploration of the researcher's experience and emotions within a cultural context to explore and reflect on research questions while uncovering greater social and cultural phenomena, facilitating understanding of a topic through personal thoughts, practices, and consciousness (Denzin and Lincoln, 2018). By turning on themselves to 'unveil, interpret and/or critique the social structures and the underlying power dynamics through their own experiences' (Keles, 2022, p.2026), these personal introspective and retrospective narratives become the starting point of research and are used as the primary data (Chang, 2013; Silverman,

2017). Thus, distinguishing autoethnography from other qualitative research methods by merging the role of both the researcher and subject (Chang, 2021). Given the intimate nature of family businesses, autoethnography reflects my natural affinity and access to the subject area. Moreover, providing a holistic understanding of the practices within the family business, and what it is like to work within it at a third-generation leading through a period of high disruption and innovation (Sambrook and Herrmann, 2018). In this section, I discuss the benefits and challenges of using autoethnography as a research method and the steps I took to employ this approach.

Autoethnography has drawn criticisms for being ‘too artful, not scientific, for having no theory, no concepts, no hypotheses, for not being sufficiently rigorous, theoretical or analytical’ with ‘small samples, biased data and bad writing’ (Denzin, 2014, p.70). Such challenges echoing Ayer’s (1936) seminal positivist theory outlining that if a phenomenon cannot be measured, it cannot be considered as an empirical science. However, I justify its adoption in arguing that the emotional depth of autoethnography generates rich insights that uncover personal feelings, that would not have been inaccessible from the narrow generalisation of pure observatory studies since I would not have exposed these intimate, personal feelings and experiences with an observer (Atkinson, 2006, Hackley, 2016). Therefore, using my own nuanced and detailed lived experiences to produce ‘powerful images, emotions and understanding’ (Dillow, 2009, p.1346) through my subjective lens, elicits truthful meaning from my own life, and social phenomena within the context I am embedded - my family business. What emerges is a far deeper, more versatile and honest exploration (Kosonen and Ikonen, 2022) as it ‘unearths and illuminates the tacit and subaltern aspects of organization’ (Boyle and Parry, 2007, p.186). For instance, my interpersonal relationships, the connection between my personal being and the organisation which fundamentally underpins the dynamics of my role in situ. To explore these themes, I use first-hand accounts, stories and experiences

that would be typically ‘shrouded in secrecy’ (Ellis and Bochner, 1996, p.25) using other methodological approaches, such as moral dilemmas, emotionally charged family conflicts and private topics that I would not have been visible or accessible to an observer. However, in doing so, I am aware that this intensely personal process can expose my intimate self and as such, personal and professional risks and vulnerabilities have been considered by removing direct references to identifiable entities, places or persons.

Fleetwood and Hesketh (2006) further underline how the validity of autoethnography rests in its ability to explain the past through emotive explanations of phenomena, rather than its validity as a predictive source of research for the future. Denzin (2014, p.13) similarly notes how autoethnographic research uses ‘sincerity, historical truth, subjective truth and fictional truth’ to recontextualise elements of life as a means of subjective insight, rather than an ‘end’ of positivist knowledge. In the realm of family business, which is highly subjective due to the unique nature of each interpersonal family relationship and business structure, this is particularly important, given that each family’s ethos, operational method and business structure may only be suitable to them and thus each case’s bespoke truth must be recognised. To summarise this point of purpose, Qutoshi (2015) notes the multiple affordances offered by autoethnography and the ways in which researchers can apply it, such as how it can be leveraged to ‘open their inner worlds imbued with personal beliefs, thoughts, and emotions’ (Keles, 2022, p.2032). Likewise, as a ‘process of transformation, healing and illumination’ (ibid.) or to ‘emancipate marginalised individuals whose voices are muted and whose stories remain untold’ (ibid.). Such insights reflect my position as successor of a family firm in a context (the traditional private hire industry outside of London) scarcely represented in literature. This autoethnography has certainly, and unknowingly at inception, become a force for personal healing and illumination as it has unveiled learnings that have given me a better understanding of my past and a better sense of control over my future. And, on top of this



personal purpose, in line with Adams *et al.*'s (2015, p.102) summary of a successful autoethnography, also serves to extend family business literature by 'making contributions to knowledge, valuing the personal and experiential; demonstrating the power, craft and responsibilities of stories and storytelling; and taking a relationally responsible approach to research practice and representation'.

Once I had become comfortable with the validity and appropriateness of using autoethnography for this chapter, I began investigating how to approach it methodologically. By reading Sarah Wall's (2006) autoethnography tackling the learning of autoethnography in which she reviewed, compared and critically analysed a range of autoethnographic approaches, this became clearer to me. Reflecting on the author's findings, I discovered the debate concerning the varied ways in which autoethnography can be conducted, from familiar, more conservative and methodologically rigorous approaches adhering to traditional qualitative research norms to more experimental literary methods that omit any reference to research conventions, such as theory and references, producing evocative and artful narratives with no observance of academic writing style, structure or methodological norms. To justify the latter's unorthodox approach to academic writing, which lacks systematicity, Wall's (2006) autoethnography presented the view that conventional criteria for judging validity should not be applied to autoethnographic writing. Instead, focus should be given to how the narrative, albeit not systematic, is highly personal and more authentic, having used the voice of the insider, rendering it a credible, reliable, and evocative account that suitably contributes to knowledge-building of a societal or cultural context.

Through this extensive and critical reading of autoethnography, I developed an understanding of both the strengths and criticisms of this form of writing. I then had to decide whether to take this approach for my final chapter. And, if so, what stylistic approach to adopt? Having reconsidered the conventional approach in the first two chapters of this thesis, I

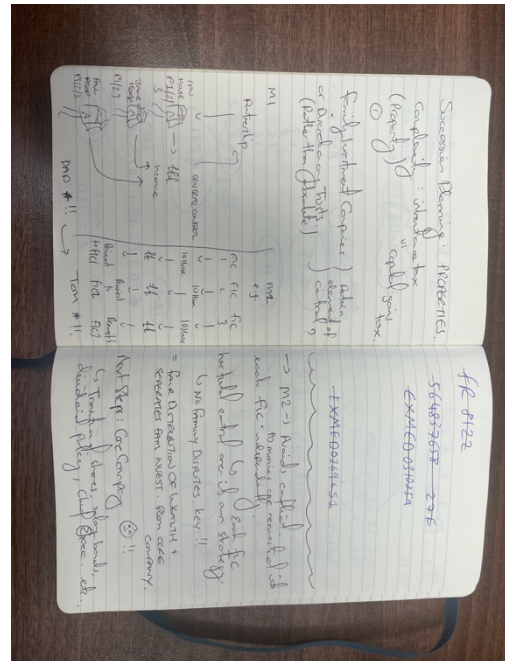
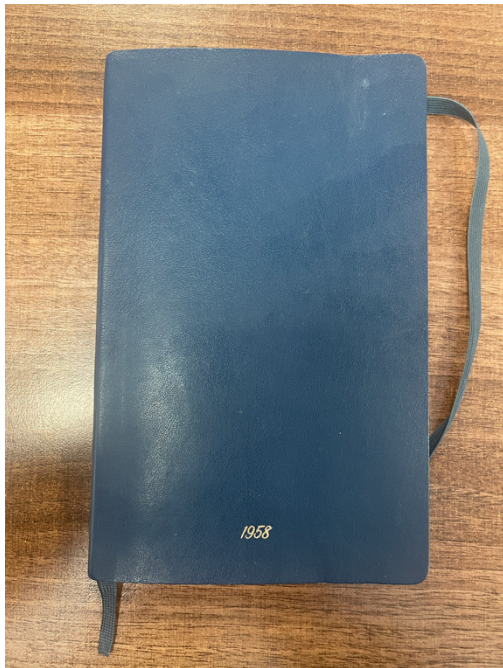
believed that exploring a different, more liberal and creative literary style of autoethnography would allow me to develop and extend my academic writing repertoire and gain experience with another way of conducting academic research. I will tell my personal story in an artistic style by rewriting my personal accounts using poetry inspired by the historical use of poetry within my family business as a tool to transfer knowledge between intergenerational family members. I balance this artistic approach with elements of academic tradition by referencing and incorporating supporting theoretical content where appropriate, which I felt uncomfortable neglecting entirely. Therefore, unlike other scholars, I will not entirely abandon the standard formatting of academic research and will include an introduction with research questions, a contextual background, a review of literature, a methodology, findings and a conclusion (Hammersley, 2023).

Although the application of autoethnography remains relatively novel in this subject area, I have been comforted by the emergence of autoethnographic management studies. Prothero's (2023) work on her first-hand, lived experiences on patriarchal structures within academia, and specifically business schools, demonstrates the appropriateness of this non-conformist methodological approach whereby she abandons traditional academic writing style and structural norms. Its publication in the *Journal of Management* reinforces the credibility of this approach in the mainstream and has therefore positively influenced my thinking.

#### **6.4.2 Transforming Data into Poetry: Exploring the Literary Potential of Data Collection in Autoethnography**

First, my accounts were consciously and iteratively collected for research purposes from January 2020 through personal reflective journals – including daily documenting of thoughts and observations, streams of consciousness, unstructured commentaries of emotions and other bodies of fragmented prose. These writings were documented in physical notebooks and have been stored for re-reading throughout this research process (See Figures 6.1 and 6.2 below). This autoethnography also factors in other sources of data such as historic e-mails,

WhatsApp messages, in-personal verbal conversations, memories of lived experiences since early childhood that contributed to the formation of personal values, opinions and thought processes and archival research such as research topics related documents, reports, books and other information sources (See Table 6.1 below).



**Figures 6.1 (left) and 6.2 (right):** Sample photograph of an A5 notebook (240 pages) containing personal journals (1) and sample photographs of note-taking within (2).

Source of Data	Scope of Data
Personal journals	Approximately 2880 pages of personal journaling/note-taking since January 2020, across twelve A5 notebooks. Includes daily documenting of thoughts and observations, streams of consciousness, unstructured commentaries of emotions and other bodies of fragmented prose relating to both commercial activity and personal reflection.
Emails	Since 2020, I have been in receipt of approximately 18,980 emails annually in my professional capacity, equating to approximately 56,940 emails received to date.
WhatsApp Messaging	Approximately over 72,800 business-related Whatsapp messaging annually since 2020.
In-personal verbal communications	Approximately 705 working days over the research period, during which in-personal verbal communications were held in an office setting.
Archival Research	Hundreds of academic articles relevant to the research subject have been read and referenced during this research. Notable books include Harvard Business Review's Handbook series, including Family Business, Manager's, Leader's and Emotional

	Intelligence. Thousands of online sources – including news reports, blogs and social media posts, such as LinkedIn.
Miscellaneous	An unquantifiable number of data sources such as notes taken on scraps of paper, moments of personal reflection/memories, photographs etc.

**Table 6.1:** A sample of data sources accumulated over the research period being analysed for this autoethnography.

These artefacts and personal accounts were collated and reviewed in a fluid and evolving way, without structure nor in a linear approach. Instead, the approach was likened to being ‘sent into the woods without a compass’ (Ellis, 2004, p.120), collecting data and analysing it in a meandering way. To review my data and extract themes, I did not code it systematically but rather re-read my personal accounts and archival documentation, which helped reinforce my lived experience and allowed me to extract the most resonant themes that connected with me strongest emotionally. My autoethnographic accounts are written in the first person in light of the ‘heightened acceptance of the self-narrative as a form of sensemaking within organisational life’ (Boyle and Parry, 2007, p.187) and although personal, they weaved with how my own experiences have interacted and engaged with the context within which I have been situated. Thus, I offer insight into both my inner self, myself in the social context of the business, and the business itself. Ethical considerations linked to the reliability of autoethnography and its ‘truth’ are mitigated through my transparency regarding my positionality as researcher and subject and my methodological approach, thus engaging in a form of data collection and analysis that actively seeks out my truth, and that does not aim to be representative of anyone else through a biased lens.

After the data was reviewed, I explored a creative approach to present it in line with ‘efforts to transform qualitative inquiry, drawing on resources from both imaginative literature and art’ (Hammersley, 2023, p.1) since blending arts and humanities with scientific enquiry crafts a more embodied way of facilitating understanding of the physical and social world (McNiff, 2017). To do so, I used the prism of poetry as ‘a window into the heart of human

experience' since 'poems written by participants or study subjects serve as expressive synecdoches for their representative cultures' (ibid., p.83). Practically, poetry enabled me to think creatively about the data and to uncover prominent themes that arose from the mass collection of raw data regarding my experience as a third and next generation of my family business. Thus, the poetic inquiry was used as a tool to discover the themes and meaning emerging from the data as much as to inform the reader. In other words, as per Ricci (2003, p.591) poetry was used to provide 'meaning, density, aestheticism and reflexivity' after having immersed myself in the data through the reading and re-reading of it. According to McCulliss (2013), poems are catalysts that provoke a far more in-depth and holistic understanding of the human experience, since the reflexive and thoughtful nature of writing poetry engages both the brain and the spirit to move thinking toward reflection and emotive-driven action (Sherron, 2014). By putting words together and re-writing raw data into these new configurations, poetry allowed for the powerful reconstitution of my world through repetition and rhythm, making me, as a subject, explore myself and my context in a whole new way. I, therefore, contribute to family business literature by using poetry to emphasise the emotional, human, and relational aspects of an individual's experience by processing and relaying my personal story. Such insights would not have been as digestible and engaging to wider audiences if presented by conventional academic outputs (van Rooyen and d'Abdon, 2020) compared to the rich and nuances tapestry of experiences that poetry permits.

Further, because poetry 'delinks from conformist methodologies of knowledge production and reconfigures the relations of power that shape conventional research by invigorating the (often suppressed) voice of the colonised' (ibid., p.13), I believe it represented a strategy that decolonises the suppressed voice, in the sense that poetry opposes conventional framework and jargon, and allowing the research subject to speak for themselves in an empowering way, providing representation and preserving the person's essence (McCulliss,

2013). This felt particularly appropriate for this line of study, as it did not compromise my voice as the third generation of a family firm that remains subservient to the second, in-control, generation, but whose voice is equally as important for the successful continuation and succession of the family business. Therefore, it served as a suitable tool to discuss the interplay between generational leadership, tradition and how successors navigate for the future.

Poetic inquiry has encountered criticism in that it sacrifices scientific rigour and validity, Fernandez-Gimenez *et al.* (2018) purport that this artistic approach conversely heightens validity, rather than threatening it, since it can express multiple meanings, complexity, and fullness in a way that large bodies of data cannot provide in such a succinct and emotive way. McCulliss (2013) reinforces this stating that often meaning gets lost through traditional scientific analysis, as the experiential richness and personal experience are reduced to statistical data. Carr (1994) also references how the volume of data collected during research can be overwhelming and hard to interpret, whereas poetry is characterised by its economy and compression of words, thus, capturing depth with succinctness.

In this case, if autoethnography aims to retell lived experience in a meaningful and evocative manner, poetry serves as the appropriate vehicle to do so, in addition to its purpose of yielding insight from raw data to frame themes and augment analysis. Applied directly to family business and organisational study, Philipps (1995) and MacNeil (2000) draw parallels between the subjective nature of organisational membership, the unique circumstances, arrangements and experiences that are experienced in this context, and the powerful way in which poetry can be harnessed to analyse and present this. I take forward this view by moving beyond using poetry simply as a medium for universal storytelling. Instead, I use it as a medium to generate insights from raw data, framing further analysis through the retelling of my personal lived experience and emotions using evocative imagery and language. In doing so, I elucidate actual tensions and accommodations between tradition and innovation. Thus, the poetry

enables a deeper exploration of the dynamics within my family business to aid my research questions.

To move the raw data to poetry, I first processed all the data by reading and rereading it. The data was collected across many sources and formats, I retyped and formatted it digitally in a centralised document using Excel to make extraction of key information easier. Tables were made for all sources and within these tables, direct quotations or rewritten summaries were included within each. Once the data was reformatted in such a way, each segment of data was classified using sentiment analysis – determining by human judgment whether the data triggered positive (P), negative (N) or neutral sentiments (NR). Additionally, I then applied keyword extraction to determine, using a frequency-based approach. To do this, keywords were scored with a term frequency which was the number of times they appeared in the text. This then identified the recurring themes that emerged from the data. It is worth noting though that a lot of key data also emerged through streams of consciousness, memory and deep-rooted emotions which were difficult to process and reproduce. As such, not all data featured in the above data processing stages, yet it still contributed to the creation of poetry.

To present the results and analysis, a more personal and narrative writing style will be used, and the more factual, unbiased and non-emotional objectivist voice will be surrendered (Webb, 1992; Schultze 2000) in line with the autoethnographic approach of this paper.

## **6.5 Results and Analysis**

The first poem (below), titled ‘The Dance in the Rain’, is my attempt to give an overarching view of what it feels like to be part of a family business, highlighting imposter syndrome, family conflict, family support and long-termism. The second poem (below), ‘Blood of Old, Spirit of New’ focuses more specifically on the role of the third generation in the family business, highlighting intergenerational dynamics, succession planning and the role of both tradition and innovation within family business. Culminating these, two overarching themes

materialised: first, the emotional and psychological implications on the succeeding third generation and second, legacy entrepreneurship.

### **Rain Dance**

*In the tangled web of family ties,  
Is a world of opposites that scatter and sunder,  
Freedom and fire, light and thunder,  
Where family business is both menace and aid.  
Self-doubt and self-worth muster a cloudy spell,  
Yet in the presence of blood, it ebbs and quells,  
For care and love triumph over doubt,  
As each voice becomes confident of its own clout.  
The weight of indebtedness may arise,  
But time waits for no man, regardless of our cries,  
So, we must make the most of each and every day,  
To craft our destinies in an unforgiving way.  
Another day, another dollar gained,  
And within the family, knowledge is retained,  
Of the worth of diligence and devoutness,  
As well as the tides and crests of pure emotion.  
For though conflict may cut us apart,  
Love unites us close, like the warmest pulsing heart,  
And by weathering the storms of life, we still stand,  
Connected and united in our pursuit, forever arm in arm.  
If you're going to be a bear, always be a grizzly,  
Even when the skies above are grey and drizzly,  
For a dance in the rain is one of give and take,  
We learn to bend, but never break.*



### **Blood of Old, Spirit of New.**

*Within the chambers of legacy and lore,  
A third generation is now beginning to explore,  
The course beset with burden and stress,  
As I steer the business, mightily driven to progress.  
Confusion and doubt pervade the air like a heavy fog,  
As change grapples the spirit of the young underdog,  
With the lingering of kin,  
I must find a new way, but where to begin?*

*Expectations are high, a pressure that weights like lead,  
Jagged and unpredictable, the road that lies ahead  
But flowing through my veins, the blood of old,  
The spirit of my predecessors, brave and bold.  
I sacrificed a lot to be here, but was that all in vain?  
Though dreams and ambitions gone, I found new terrain,  
With caution, I still wonder, what could have been?*

*But I carry with me the learnings and legacy of the past,  
And the desire to make it strong and steadfast.  
As I lead a new course in spirit of our kin,  
I fail to evade the responsibility within,  
And though the trail ahead is nearly impossible to see,  
The belief in myself, now limitless and free.  
So, as I move on forward, as in years gone by,  
I draw on the lessons, my father's battle-cry,  
And with each step, I bring light from the grey,  
The sun will rise again, as the third generation makes its way.*

#### **6.5.1 Emotional and Psychological Implications for the Succeeding Third Generation**

In both poems, I draw attention to the complexities of the intergenerational passing of the family firm from a psychological and emotional dimension. Succession represents the most critical issue a family business must confront and manage to safeguard its survival as it transitions from generation to generation (Gimenez and Novo, 2020), and ‘bears unique challenges that can affect the incumbent's and successor's emotions’ (Bertschi-Michel *et al.* 2020, p.83).

To begin with, I took a holistic view of my position as a third-generation successor of a family firm and what this meant for me in terms of my identity. From a young age, I’ve always been aware of my potential as an heir to the business and the implications this may have. From a personal career perspective, I often felt ‘groomed’ (Muriithi, Waithira and

Wachira, 2016) as a successor from a young age through involvement in the running of the business which meant that in many cases, I failed to insist upon and pursue other professional interests due to the indebtedness I felt to the family firm. Though not conclusive, I wonder whether working outside of the family firm would have allowed me to gain new, alternative experiences that would have been useful to bring back into the family firm (Sardeshmukh and Corbett, 2011). On a personal level, I sacrificed my personal ambitions of spending time living abroad, working in a global capacity and benefitting from the skills I acquired during my undergraduate degree – BA Hons in Modern Languages (Spanish, French and Portuguese). I summarised this through poetry, explaining: *I sacrificed a lot to be here, but that was not in vain*, *Though dreams and ambitions gone, I found new terrain*, and *With caution, I still wonder, what could have been?* Through references to dreams, ambitions and new terrain, I wanted to capture the emotional and physical displacement I have felt as a successor, which has impacted my self-worth in the sense of questioning whether I have followed my true identity, destiny and desires. This sentiment of sacrifice I have experienced reflects recent literature (Lyons *et al*, 2023) concerning how personal sacrifice often ensures business continuity and is influenced by parental behaviours, such as their own sacrifice and long working hours or through support, encouragement and contribution to development of a self-motivated decision to join the family business – all of which have been a factor in my personal sacrifices. Another self-worth crisis emerged in the acceptance of the successor role in the form of imposter syndrome. I have forever thought that people would observe me as a lucky heir, who happened to acquire a successful business having done little work for it. In other words, having been presented with a business on a silver spoon. To combat this, however, I have to learn to manage, control and be pragmatic about these emotions and recognise that having worked in the business for over ten years and have understand how, as demonstrated in previous studies, how appropriate professional development support from predecessors (Schroder and

Schmitt-Rodermund, 2013), such as funded support of my Master's in Finance Management and PhD studies, have well-equipped me both practically and intellectually to take the lead on these challenges, affirming how, through education, upskilling and experience, one's *'voice becomes confident of its own clout.'*

Through my poetry, I also convey the challenges and negative emotional and psychological impacts of my journey with succession planning: *I must chart a new way, but where to begin?* and *"confusion and doubt pervade the air like a heavy fog"*. My references to confusion and doubt directly refer to the lack of clear communication about establishing a clear plan and timeline for transitioning my own business and confronting practicalities such as asset and share succession, tax implications and the importance of a family constitution to set key rules amongst the family (Leib and Zehrer, 2018). My experience contrasts with Handler's (1994) and Cadieux's (2007) clearly defined four-stage succession model: first, the incubation period where the predecessor remains the dominant power, managing and controlling the firm whilst the potential successor is initiated into the daily working of the firm to begin learning the family firms' culture and operating practices. Second, this stage advances when the successor commits to the firm and formal responsibilities are allocated, gradually evolving professionally until they begin to show a desire to succeed. At this point, the successor is identified and agreed upon. The third stage of succession is the joint management of the firm between predecessor and successor, and a structured strategy is established to complete the full transfer of leadership to the successor. Finally, in the fourth stage, the successor takes over the leadership of the family firm in its entirety, signalling the end of the succession process.

The lack of a formal, well-communicated and visible transition plan in my family firm has been frustrating and has taken an emotional toll due to role ambiguity and shifting dynamics within the firm. Despite this, I have informally initiated the succession process, as is common in family businesses (Morris *et al.*, 2013, Agarwal *et al.*, 2023, Renuka and Marath, 2023),

taking joint responsibility, as per stage three of the above model. Alongside my father (Managing Director), I have jointly strategised reallocating over £7M worth of assets and restructured the business's future investment model, on behalf of eight other individuals across second and third generations. In doing so, I have managed conflicting values, the opposing priorities of both second and third generations, resistance to change, and commercial reasoning requiring high levels of emotional intelligence. I take comfort in how this reality reflects Teece's (2023) view of successfully managed transformations, whereby good leadership alleviates tensions which are common during periods of change. Balancing both the commercial pressure of a successful transition, such as the financial ramifications of property transfers and legal costs, with the familial stressors of ensuring all parties are aligned and content with future operating structures, has required strong relationship management to understand, manage and align the wants and desires of various parties. I refer to this in my poetry as: "*expectations [of each party within the family firm] loom, a pressure that weights like lead*".

Challenging existing literature (Lambrecht, 2005; Stalk and Foley, 2012; Kalra and Gupta, 2014), I also present my more optimistic emotional approach to succession: "*To craft our destinies in an unforgiving way*", "*The conviction in my potential, now forever free*", and "*The sun will rise again, as the third generation makes its way.*" By referencing the conviction in my potential to be forever free, I take comfort from Le Breton-Miller *et al.*'s (2004) stance that key factors that lead to a successful transition are the successor's managerial ability, competence, experience, and credibility, as well as the trust and respect of other family members in my professional capacity. I also must acknowledge that even equipped with these skills, psychological and emotional challenges will still prevail during the transfer of a complex organisation (Nikolaev *et al.*, 2019), learning to accept that stress and anxiety are interconnected with the entrepreneurial and business context regardless (Baron *et al.* 2016). By

referring to pursuing destiny in an unforgiving way, I address two ways my unforgiveness is channelled. First, I have become unforgiving in how I liberate myself from the fear of comparison to the previous generation, having delivered positive results from my new approach to management within the firm, whilst still respecting the core values of previous generations (Suddaby and Jaskiewicz, 2020). Second, promoting a healthier balance between business and personal needs, by integrating personal projects and passions within the realms of the company to counteract the historical emotions surrounding opportunities forgone – such as recent property investments made in Spain to internationalise the family firm.

### **6.5.2 Legacy Entrepreneurship**

Considering the emotional and psychological implications of succession as a third-generation family member, I recognised during this research that there remains a strong desire to continue with, develop and innovate the family firm. Reflecting on references I made in the poems to: *'legacy and lore'*, *'spirit of my predecessors'*, *'the blood of old'* and how *'I draw on the lessons, my father's battle cry'*, it became apparent that my inherent entrepreneurial motivation had a strong connection with my family's past. This led me to reflect on how some family firms sustain for generations with sustained entrepreneurial drive, and whether this continued propensity for entrepreneurial behaviour in the succeeding generation derives from an inherited 'entrepreneurial legacy – rhetorically reconstructed narratives of the family's part entrepreneurial behaviour or resilience – that motivate and giving meaning to entrepreneurship' (Jaskiewicz *et al.*, 2015, p30), which 'must be built because it cannot be taught' (Teece, 2023, p.119). To build these reconstructed narratives of the past, and to nurture entrepreneurship over time, storytelling between older and younger generations plays a significant role. To exemplify this, and subconsciously, but apparent upon reflection, I perhaps was inclined to choose the mode of poetry for this research after years of imprinted story-telling about how my grandmother, and founding generation, engaged in poem writing, including her poem 'Time

Waits for No Man' (See Figure 6.3 in Appendix C) which I make an anecdotal reference to in my poetry. Figure 6.3 provides a clear example of how, on Christmas Day in 2010 (aged 16), I was gifted a copy of my grandmother's (first generation) poem by my Aunt (second generation), who had also received the poem as a gift as a young girl. Along with the poem, the adjoining note explains to me: 'as you go through your life, this poem will mean many things, and as time goes by you will understand its value'. I understand this to now be a prime example of intergenerational binding, story-telling and legacy building in the way that the values and vision of the founders have been continuously instilled and imprinted in succeeding generations, as well as demonstrating how family members reconstruct and reinterpret the past to suit present purposes (Suddaby *et al.*, 2010). Existing literature reinforces my personal experience in which my family harnessed the unique opportunity to imprint beliefs in me as a minor, which is optimal for retaining these into adulthood (Marquis and Tilcsik, 2013).

To summarise, this type of 'childhood interaction with multiple generations provides repeated opportunity for senior family members to share narratives that reconstruct the family's past entrepreneurial acts or resilience' (Jaskiewicz *et al.*, 2015, p.40). This is particularly important in cases like mine where children may never have met their ancestors, yet family history and myths are still transferred and retold in an impactful way (Copeland and White, 1991). For example, my recalling of my family business history and ancestral stories to regional publication, North East Times<sup>47</sup>.

In addition to story-telling, my research and experiences highlight how entrepreneurial legacy can be fostered to create entrepreneurial thinking transgenerationally in other ways – such as family cohesion, involvement in the firm from a young age, knowledge of the past, strategic education and exposure to resources and power (Jaskiewicz *et al.*, 2015). The below table (Table 6.2) outlines these elements of my experience.

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<sup>47</sup> <https://netimesmagazine.co.uk/business/interview-through-thick-thin-blue-line/>

<b>Tool to foster transgenerational entrepreneurship</b>	<b>Commentary of Third Generation Entrepreneurial Successor from findings [non-verbatim] derived from data sources outlined in Table 1, such as personal accounts, unstructured streams of consciousness, e-mails and miscellaneous sources.</b>
Family Cohesion	<ul style="list-style-type: none"> <li>• We consistently show family support in both business and personal lives. For example, the family members have emotionally supported and financially sponsored a member of the third generation with charitable pursuits – such as the Leeds Marathon and charity fight nights.</li> <li>• I nominated, and all family members rallied to support, a member of the second generation for the Lifetime Achievement Award, which was won, at the 2022 National Taxi Summit Awards.</li> <li>• We go on annual family holidays - e.g., India in 2023. It was a blended work/leisure trip but it afforded us a great time as a family to see the world together, expand our perspective and conduct market research with two generations present.</li> </ul>
Involvement in the firm from a young age	<ul style="list-style-type: none"> <li>• From a young age, I was included in the family business in a variety of capacities – from passively being in and around company premises familiarising myself with employees and general observation, to more active roles. During my teenage years, I was encouraged to work during their summer holidays – cleaning cars, weeding the premises and painting before being old and responsible enough to answer calls as a handler in the call centre.</li> <li>• At home, after school, I was consistently encouraged to discuss and share my opinion on business matters.</li> </ul>
Knowledge of the Past	<ul style="list-style-type: none"> <li>• Storytelling of the past is common at family events and in the workplace. We do this both amongst family, and with other stakeholders, such as long-serving drivers, who recount stories to me about how technology and socio-demographics have changed, such as the transition from ‘two-way radios’ to more complex computer-based dispatching systems and the progression of vehicles and their functionality.</li> <li>• When we redesigned our office headquarters, we created a ‘Room of Memories’ where each wall is adorned with memorabilia since the firm’s inception – such as historical advertising, poetry, branding, letters from banks and government ministers, as well as photographs of the founding team and employees that have served over the years. Each office also has a portrait of the Founders and a plaque in their honour.</li> </ul>
Strategic Education	<ul style="list-style-type: none"> <li>• I was encouraged to pursue University in whatever subject area I saw best fit – which, ultimately, led to my BA Hons in Modern Languages (Spanish, French and Portuguese). Although not strategic at the time, this has eventually become beneficial to the internationalisation of our property business.</li> <li>• Before entering the business, I engaged in work experience at a similar size/profile firm in Sheffield for a month – studying their business model and learning skills that I could bring back into the family business.</li> <li>• After entering and having worked for a few years within the firm, the role of Finance Director became available. The family decided that I would be a suitable candidate but wanted me to also complete a Masters in Finance, alongside work, in order to receive formal training and knowledge acquisition in preparation for taking on the role.</li> </ul>

	<ul style="list-style-type: none"> <li>• At the time of writing, I am completing my PhD which has been encouraged and funded by the business in order to develop my strategic management, by deep-diving into our own business as part of my thesis.</li> </ul>
Exposure to Resources and Power	<ul style="list-style-type: none"> <li>• In my current role as Finance Director, as visible in Figure 6.1, I have been given access to control both the Group business finances and the Partners' personal investments. In doing so, I have been exposed to the power and responsibility of handling multi-million-pound transactions and inheritance planning.</li> <li>• During the pandemic, we (second generation) were given access to company funds to launch a delivery start-up, Grab – which included investment in developing new technology platforms, marketing and physical hardware. We were given full autonomy to run this venture and learnt a lot about idea creation, execution and managing a business during moments of crisis.</li> </ul>

**Table 6.2:** A table outlining five key elements of how entrepreneurial thinking has been fostered across generations

In a multi-dimensional manner, at times consciously and other times unconsciously, my family firm first uses its cohesive family unit to foster a sense of unitedness and shared purpose. Once old enough, the family also encourages involvement in the firm from an early age to develop industry knowledge and business skills, retell stories of the past to preserve values and vision, and remember historic struggles to remind stakeholders of the firm's humble beginnings. This is accepted in literature as an effective method of transmitting the family's key business values (Suddaby *et al.*, 2010; Marquis and Tilcsik, 2013; Jaskieqicz, 2015; Jacquemot, 2019) which research shows help drive strategic advantages moving forward (Ge *et al.*, 2023). Using these tools during adolescence and young adulthood, my family business has exploited both the benefits of academic development, practical knowledge, and storytelling to ensure successors receive exposure to resources, power, and values to see whether they successfully apply and implement these to drive positive succession.

To deepen this analysis, and link back to earlier findings, I must critically assess whether this approach, albeit positive for the business, prevents the exploration of the successor's diverse interests outside of the family firm and how this limiting exposure to other experiences can be detrimental from an identity angle. I am also wary of how subjective experiences are, and how the tendency to romanticise and glorify the past can construct a



false/inaccurate narrative that also becomes outdated, inapplicable, or irrelevant in a changing world which can confuse, mislead, and stifle the successor. The interplay between formal education and entrepreneurial experience has also been a personal challenge – with the academic workload being intensive, it has at times, therefore, hindered my entrepreneurial capacity. And, although having been exposed to resources and power, this has still been in a context of informal succession planning, blurring the lines between the amount of autonomy, power, and control that I legitimately hold and therefore, whether this control has been fully acquired as part of a transitioning process or not.

The findings highlight the implications of family business succession faced by third-generation successors, in particular the complexity of navigating the demands of the business and its commercial success with the personal wellbeing of the succeeding generation. Incumbents can indeed drive the succession process through legacy entrepreneurship and succession planning, but consideration must also be given to the successor's personal ambitions and emotional well-being to ensure a harmonious continuation of business activity. In other words, this is not merely a story of innovation versus tradition as two competing forces as per De Massis *et al.* (2016), but more so the intertwining and importance of both in tandem to accommodate positive succession and business transformation, albeit with significant emotional investment (Teece, 1997, 2023; O'Reilly and Tushman, 2004). By connecting these two themes through poetry, I have enriched my understanding of what it is like to work within my family business as a succeeding generation as well as delivering practical examples of how successors can manage this intricate interplay between personal, familial and commercial expectation, using entrepreneurial legacy, succession planning and emotional intelligence, to ensure family firms achieve positive successions.

## 6.6 Conclusion

To conclude, this study has embarked on a deeply introspective and personal journey into the intergenerational succession of family businesses (Chang, 2013; Silverman, 2017). Through the realm of my position as an inheritor of a third-generation family business, my autoethnographic accounts of my own experiences and reflections have served as the centrepiece of this study. The intention of this study was to unravel the multidimensional and intricate nature of transitioning business from one generation to another and gain a more profound understanding of what the implications are of being a successor from both a personal and strategic perspective (Lambrecht, 2005; Stalk and Foley, 2012; Kalra and Gupta, 2014).

Existing empirical evidence and academic literature in this domain have endorsed the importance of family businesses in markets globally yet remain cautious about the longevity of family firms, underscoring the complexities of succession. Passing a business from one generation to another is cited in literature as being one of the most complex processes a family firm can undergo, and pivotal in determining the entity's survival. Given its gravity, this validated my rationale for investigating this subject, offering practitioners a more optimistic outlook on the survival of a third-generation family firm compared to prior research (Lambrecht, 2005; Stalk and Foley, 2012; Kalra and Gupta, 2014).

My study was guided by three fundamental questions. I first focused on the practical and theoretical implications of balancing personal ambitions, family and commercial success for third-generation successors in family firms. Secondly, I explored how the experiences of the third generation are impacted by the actions of the incumbents and other historical leaders. And third, how that affects the interplay between tradition and future innovation.

Given the deep personal attachment to this subject area, autoethnography enabled a deeply intimate exploration of this research subject, unlocking a private and emotional dimension that would have been inaccessible to a researcher. The methodological approach

was interwoven poetry, permitting artistic expression through an uncommon medium in this academic field, and relevant to the family firm at the core of the study due to the historical importance of poetry within the family regarding entrepreneurial legacy building.

The implications of this study are manifold. Personally, this research acts as a self-serving introspective reflection of my own personal position as a successor within a family firm. Rather than serve with generalised research outputs, this study significantly enhanced my understanding of how to navigate this process to set both myself and the firm up for a successful intergenerational transition. Other successors are also able to draw upon this research as a comparative reference. Although all family firms are distinct, this study offers insights and guidance to other successors in their own journeys and experiences, such as highlighting the importance of tradition and innovation working as complimentary notions, rather than competing forces. Successors must harness their competencies (knowledge, continuous learning and leadership) as dynamic capabilities (Teece, 1997, 2007, 2012, 2016, 2023) to drive innovation, whilst also promoting the ambidexterity of signature processes, legacy and tradition with firm-level renewal using sensing and seizing capabilities outlined in earlier chapters (Teece, 1997; O'Reilly and Tushman, 2004; Gratton and Ghoshal, 2005).

One suggestion to Newcastle University Business School is to consider expanding its current curriculum by way of the design and implementation of a dedicated 'Family Business' module to enhance student knowledge of the distinct intricacies of such firms. Similarly, advance academic literature in the field of family business and succession planning by expanding prevailing methodological approaches, demonstrating how poetry and autoethnography serve as pioneering yet apt methods of research that capture the truly personal and multifaceted nature of this intricate subject (Ricci, 2003; McCulliss, 2013; Sherron, 2014; Faulker, 2016, McNiff, 2017; van Rooyen and d'Abdon, 2020; Hammersley, 2023).

To summarise, I have introduced the importance of family businesses through pertinent literature before introducing my personal involvement within my family firm. The findings, rooted in personal experience and enhanced through scholarly exploration, will serve as a valuable personal tool for navigating family business challenges as well as for informing others. Finally, I pave the way for future research through further longitudinal studies that continue to monitor and understand changes during this process and for future generational transitions.

## Chapter 7 – Concluding Remarks

### 7.1 Introduction

The main objective of this thesis has been to investigate the UK Private Hire and Taxi market which has received limited attention to date, despite its significant role in the transport sector. The research design has aimed to present distinct and independent empirical research studies within three identifiable chapters, exploring disruptive innovation and the emergence of e-hailing firms, government climate policy and the implications for the electrification of private hire vehicles. Finally, exploring how intergenerational family businesses manage succession and innovation.

First, having established a lack of critical exposure for the UK Private Hire and Taxi market in academic literature, was to advance research of this industry. To the best of my knowledge at the time of writing, theoretical and empirical studies to date have focused solely on Uber and its operations globally or in London. In doing so, research has ignored the vast differences between London and the wider UK market, as well as between Uber and traditional private hire operators. By failing to acknowledge these contrasting business models and legislative frameworks, existing research has been restricted in its understanding and analysis of the industry. Through first-hand professional insights and unique access to industry data and networks, and by objectively focusing on the industry outside of London, this thesis has exposed this contrasting nature and has elicited novel insights which have filled crucial gaps in current literature through the empirical contributions of each study.

In addition to advancing literature, industry insights are provided that can inform policymakers regarding modernising and updating legislation and government policy<sup>48</sup>. With outdated legislation and a lack of reform along with a rapidly advancing sector digitally,

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<sup>48</sup> UK government. (2021). Net Zero Strategy: Build back Greener. [Policy document]. Online: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1033990/net-zero-strategy-beis.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf)

evidenced in the form of ride-hailing operators and the advancement of zero-emission vehicles, critical analysis of key developments within the industry were provided including recommendations to policymakers based on the empirical evidence.

The final objective has been to use these studies as a tool for deep, personal introspective as a researcher-practitioner. Through reflective practice, this thesis has served as both a professional and personal developmental force.

To provide a greater understanding of how these objectives and outcomes have been met in this thesis, the empirical findings of each study are now presented as additional evidence, before addressing each study's implications and limitations. This thesis concludes by considering areas for future research.

## **7.2 Summary of Findings**

Study One, titled *'Disruptive innovation or disruptive money? The case of Uber, e-hailing and the UK Private Hire and Taxi Market'*, investigated the extent to which Uber has disrupted the UK Private Hire and Taxi market and how private hire firms have responded as incumbents to this challenger. The findings were gathered using novel insights into this subject area from industry-leading experts who were purposively selected through the lead-authors unique access to industry networks, being a researcher-in-situ. Therefore, extending prior, London-centric and exclusively Uber focused research (Dudley, Banister and Schwanen, 2017; Skok and Baker, 2018). Findings also supported Bishop and Suchman's (2000) view that innovation can be a 'highly politicized construct taken up by specific actors and made to work in particular ways that are not always beneficial' (p.331). Similarly, Christensen's theory of disruptive innovation (1997; 2015; 2018) fails to consider regulatory disregard, corruption, and the power of money (Parsons, 1969; Aplin and Hegarty, 1980), which the empirical findings signal are key enablers of Uber's disruption of the market. Thus, the introduction and application of the term 'disruptive money' within this context. Furthermore, discovering how,

whilst incumbents began to modernise and digitalise their own service provision and product offerings (Schmidt and Druehl, 2008; Sonsa *et al.*, 2010; Schneider and Spieth, 2013; Wirtz and Daiser, 2017; Andersson and Eriksson, 2018), these firms also harnessed their traditional unique selling points as combative forces in the face of technological advancements and digital disruption (Markides, 2006).

Study Two, titled '*The Transition to E-Taxis. How the UK private hire market has become a Forgotten Industry in the UK government's Net Zero policy*' expanded the ongoing debate about Net Zero and climate policy (Arora and Mishra, 2021; Ambrose, 2023; Li *et al.*, 2023) by applying the challenges of vehicle electrification directly to the UK Private Hire and Taxi market (Reinthaler *et al.*, 2014; Ko and Shim, 2015; Ko and Shim, 2016; Zou *et al.*, 2016; Yang *et al.*, 2018; Tseng *et al.*, 2019; Langbroek and Hagman, 2020; Scorrano *et al.*, 2020; Bauer *et al.*, 2021; Hu *et al.*, 2021; Ospino, 2021). Using practitioner-led Action Research with exclusive insider access to 8.7 million sets of private hire journey data, the evidence revealed a disjoint between government policy and the realities of effectively electrifying this industry. And, highlighted differences in interests across stakeholder groups (Alford, 1975) whilst showing how policy fails to represent the interests of industry-level actors. Furthermore, it outlined additional complications, unexplored in prior literature, to business modelling and management strategy, as well as honing technical considerations more acutely to the industry in question and its specific use-case of vehicles.

Study Three, titled '*Balancing Tradition and Innovation: The Emotional Journey of a Family Business Successor*' employed autoethnographic research to undercover the complexity of intergenerational succession of family firms. The personal reflections, offered a deeply introspective and revealing account of the experiences of a third-generational inheritor of a family business. I found that through artistic expression, using poetry as a prism to convey deeply emotive themes, I was able to reveal insights that would have been inaccessible to a

researcher studying this subject. The research outlined both personal and emotional implications, as well as implications for strategic management and innovative practice. This study illustrated how successors must embrace both innovation and technology (Davis and Harveston, 2001; De Massis *et al.*, 2016; Ala-Laurinaho, 2017; Parada and Dawson, 2017; Leib and Zehrer, 2018; Fendri and Nguyen 2019; Erdogan *et al.*, 2020; Gené and Gallizo, 2021), making both notions work in tandem to support a positive transition. This contrasted with De Massis *et al.*'s (2016) view that tradition and innovation are two competing forces. In summary, I concluded that by connecting the two, successors benefit from entrepreneurial legacy. In other words, are instilled with tradition, historical practices and values along with an entrepreneurial mindset and repertoire of skills to continually advance, develop and innovate.

## **7.2 Contributions and Implications**

Each of the three studies within this thesis offers theoretical contributions and novel policy and practitioner insights into the UK Private Hire and Taxi market, bringing perspectives which collectively expand existing knowledge. Overall, by broadening the lens through which I analyse this industry, previously concentrated on London with almost exclusivity (Banister and Shwanen, 2017; Cramer and Krueger, 2018; Dudley, Skok, and Baker, 2018; Ezrachi and Stucke, 2019; Garud *et al.*, 2020), highlighting how disruptive activities are not uniform across regulatory contexts and regional geographies. Thus, through new contextualisation, the evidence adds nuance to existing literature and contributes to this subject area via a deeper understanding of an evolving industry and explore contributions to academic theory, and implications for policymakers and practitioners.



In this Chapter, the collective contributions to theory and implications of this thesis, and each study individually, will be outlined as follows: contribution to academia, followed by the implications for policy and finally, for practitioners.

To provide clarity and a comprehensive overview from the outset, the theoretical contributions made in each study, and the policy recommendations and practitioner implications, are summarised in the tables below:

<b>Research Focus</b>	<b>Theoretical Advancements</b>
<p>Chapter 4 – Study One: Disruptive innovation or disruptive money? The case of Uber, e-hailing and the UK private hire and taxi Market</p>	<ol style="list-style-type: none"> <li>1. In the first Study of this thesis, I contribute to the literature on Disruptive Innovation (DI) by introducing the concept of disruptive money, which challenges the prevailing emphasis on innovation through technological advance and business modelling. Through an examination of Christensen's DI theory (1997, 2003, 2012, 2015, 2018), I demonstrate its limitations in capturing the influence of non-market factors on growth and disruption.</li> <li>2. Additionally, I extend the competitive response literature by highlighting how firms, by persisting with traditional business models, strategies, and tools, positioning them as unique selling points, can effectively compete against disruptors who cannot replicate these historical ways of operating. My findings sit in contrast to existing literature by underscoring the viability of leveraging conventional methods for competitive advantage (Zott and Amit, 2010; Sosna et al., 2010; Schneider and Spieth, 2013; Andersson and Eriksson, 2018)</li> </ol>
<p>Chapter Five – Study Two: The Transition to E-Taxis. How the UK private hire market has become a Forgotten Industry in the UK government's Net Zero policy.</p>	<ol style="list-style-type: none"> <li>1. In the second study of this thesis, I advance Alford's (1975) structured interests theory by extending its application to the private sector, diverging from its historical focus on healthcare and public systems. Through this new lens, my findings reveal a contrast between the top-down approach prevalent in the public sector and the capacity of corporate rationalisers in the private sector to challenge monopolistic forces using resources such as data, capital, and human expertise. To substantiate these claims, I conducted action research, providing empirical evidence for this theoretical advancement.</li> <li>2. Furthermore, this study contributes novel perspectives to the discourse on Net Zero and climate policy by examining its implications within the UK Private Hire and Taxi market - a topic unexplored in existing literature. At the time of writing, no attention has been given to the effects of the UK government's net zero policy on this specific market segment. By employing Action Research methodology, I augment existing knowledge with strategic management and business modelling insights, enriching the discourse previously dominated by technical considerations in electric vehicle literature.</li> </ol>

<p>Chapter Six – Study Three: Balancing Tradition and Innovation: The Emotional Journey of a Family Business Successor.</p>	<ol style="list-style-type: none"> <li>1. In the third study of this thesis, I advance academic literature on family business by adopting an autoethnographic approach. Specifically, I offer a distinctive perspective on the experiences of being a third-generation successor, emphasising deeply personal and emotional aspects, rather than solely focusing on the structural and procedural requisites of succession. By delving into the intricacies of familial dynamics and individual emotions, I aim to enrich our understanding of the complexities inherent in family business transitions for the successor.</li> <li>2. Moreover, this study contributes to the literature by employing poetry as a methodological tool. While poetry is beginning to emerge in management journals, I contend that this is the first instance of its use to articulate the emotional challenges and personal ramifications of inheriting a family business in the UK context. Through the expressive medium of poetry, I convey the nuanced and often overlooked dimensions of the succession process, thereby broadening the scholarly discourse on family business dynamics.</li> </ol>
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a. **Table 7.1:** A summary of theoretical contributions made within each Study within this thesis.

<b>Research Focus</b>	<b>Policy Recommendations</b>	<b>Practitioner Implications</b>
<p>Chapter 4 – Study One: Disruptive innovation or disruptive money? The case of Uber, e-hailing and the UK private hire and taxi Market</p>	<ol style="list-style-type: none"> <li>1. Supporting my theoretical conceptualisation of ‘disruptive money’, I explain how elements of Uber’s operations are reminiscent of a cartel whereby their pricing activities and competitive strategies are distorting market competition through non-market factors, thus I call for investigations by the Competition and Markets Authority (CMA) to reassess Uber’s suitability as a fit and proper operator in the UK, and whether they are operating in line with competition law.</li> </ol>	<ol style="list-style-type: none"> <li>1. This study is a valuable resource for gaining deeper insights into the practical implications of disruptive forces within this specific industry context and provides an illustration of how firms can strategically respond to emerging market threats using traditional modes of operation and historical unique selling points that are irreplicable by emerging firms.</li> </ol>
<p>Chapter Five – Study Two: The Transition to E-Taxis. How the UK private hire market has become a Forgotten Industry</p>	<ol style="list-style-type: none"> <li>2. Using Action Research, I demonstrate how a study group led by the firm is created to find new ways of thinking and to plan changes, culminating in a policy proposal to create a collaborative think-tank and working group,</li> </ol>	<ol style="list-style-type: none"> <li>2. This study offers practitioners a working model to demonstrate how multi-stakeholder action research can advocate for policy changes that benefit both macro, meso and micro-level stakeholders. It also offers practitioners insights into</li> </ol>

in the UK government's Net Zero policy.	combining policymakers and local and national level and private firms, to help co-develop a suitable electrification policy, with financial and business modelling viability, that enables the best interests of all parties to be served.	their own data landscapes by demonstrating a context specific analysis of big data, highlighting critical trends and behavioural patterns of taxi activity.
Chapter Six – Study Three: Balancing Tradition and Innovation: The Emotional Journey of a Family Business Successor.		1. For practitioners, Study Three serves as a navigational tool, aiding them in effectively managing the complexities of transitioning ownership and leadership. It serves as a reflective reference point, allowing them to cross-reference insights from their own experiences to that of the author.

- b. Table 7.2:** A summary of policy recommendations and practitioner implications made within each Study within this thesis.

Collectively, this thesis contributes to the literature in several domains. First, the adaptation of Teece's (1997) dynamic capabilities framework as the foundational basis for creating a bespoke family business innovation model has been unique to this thesis. As an investigative framework, the underpinning of this model throughout my thesis has formed an interweaving thread to connect the distinct areas of my context across my three studies. In doing so, it has fostered a more holistic understanding of innovation and strategic management in both family business and the UK private hire and taxi industry, enhancing findings derived from each independent study by reflecting on the dynamic capabilities of sensing, seizing, and transforming throughout (Teece, 1997). It also has provided a structural foundation my critical evaluation of the prevailing notion of 'innovation', challenging the widespread belief that innovation is an inherently positive force (Gripenberg, 2012; Walsh, 2023), which is a common thread that binds the three independent, yet inherently linked, studies. Through the application

of Teece's (1997) core competencies as a guiding framework, I present the negative, undesirable, and unintended outcomes associated with innovation, and contribute to a more balanced understanding of its implications, through three novel perspectives and contexts of each of my three studies.

A significant contribution to theory in Study One is the addition of my concept 'disruptive money', which advances existing disruptive innovation theory (Christensen, 1997; 2015; 2018). Conventional and seminal disruptive innovation theory by testing it against a new, digitally-led business model led to the discovery of regulatory ambivalence, the indirect application of financial resources and power, influence and coercion (Parsons, 1969; Aplin and Hegarty, 1980) that are significant non-market driving forces of disruption in the industry, rather than solely technological and business model advancements (Christensen 2015; 2018). In Study Two, the theoretical contributions are twofold. First, to understand power dynamics and the interactions between stakeholder interests, I apply Alford's (1975) theory on structured interests to an entirely new marketplace. Typically applied to the healthcare system (Klein, 1996; Lupton *et al.*, 1998; Wood, 2000), the model is applied to this sector and draws parallels between the silenced interests of the micro-level communities (patients in healthcare and drivers, employees and consumers in the UK Private Hire and Taxi trade), but advances the concept by its application the private sector, demonstrating how the government move between its role as corporate rationalisers in the public sector to the dominant professional monopolists controlling policy in the private sector. Thus, the application of this theory is further developed by drawing contrasts between its use in both public and private sector settings. Here, the private-sector corporate rationalisers are the firm, who manage and harness their data and resources, and interact with professional monopolisers, in an altered hierarchical fashion. Due to the autonomous nature of private firms in industry, Action Research illustrated how firms

can employ financial resources, data and skilled employees to engage in knowledge-building activities to inform policymakers.

This study also adds new insights to the ongoing debate about Net Zero and climate policy, expanding this discussion using the lens of the UK Private Hire and Taxi market, making novel contributions by, for the first time, presenting and analysing over 8.7 million data records of unique private hire journeys from within the UK. At the time of writing, no research has been conducted regarding the effects and impact of the UK government's net zero policy on the UK Private Hire and Taxi market. Previous studies primarily investigated foreign markets, especially China (Reinthaler, *et al.*, 2014; Ko and Shim, 2015; Li *et al.*, 2016; Zou *et al.*, 2016; Yang *et al.*, 2018; Tseng, *et al.*, 2019; Langbroek and Hagman, 2020; Scorrano, *et al.*, 2020; Bauer *et al.*, 2021; Hu *et al.*, 2021; Ospino, 2021) where developments have been more significant. Furthermore, by engaging in Action Research, the additional evidence adds a strategic management and business modelling dimension to previous technical-led literature. In Study Three, an autoethnographic approach to family business research and specifically offer a unique perspective of both the deeply personal and emotional elements (Ellis and Bochner, 1996; Lansberg, 1999; Bachkaniwala *et al.*, 2001; Fivush, 2011; Fivush *et al.*, 2011; Helin and Jabri, 2016; Marques and Couto, 2022; Kosonen and Ikonen, 2022) of working within a family business and as well as through a strategic management lens, factoring both the role of tradition and innovation (Teece, 1997; Davis and Harveston, 2001; O'Reilly and Tushman, 2004; Gratton and Ghoshal, 2005; De Massis *et al.*, 2016; Ala-Laurinaho, 2017; Parada and Dawson, 2017; Leib and Zhrer, 2018; Fendri and Nguyen, 2019; Erdogan *et al.*, 2020; Gené and Gallizo, 2021). The novel and unconventional approach to analyse and present research using poetry is uncommon, but in its application in this study, the value of using an alternative yet valid research method is well-suited to the deeply emotional nature of family business, and particularly the historical relevance of poetry for my firm (See section 6.5.2).

Thus, advancing family business literature methodologically. The final recommendation for this study is that Newcastle University expands its current curriculum to include a ‘Family Business’ module to improve student knowledge of the distinct nature of such firms.

This thesis also makes policy recommendations, assisting policymakers in examining this sector. Overall, emphasis is placed on the importance of expanding the levels of knowledge and understanding of the industry, especially its nuanced workings outside of London, to implement suitable policies. Described as a ‘complex shantytown of regulation’ (Philipps, 2023, p.1199), the findings make proposals for regulatory overhaul and policy changes. Supporting the theoretical conceptualisation of ‘disruptive money’, Petrović and Jakšić (2020) point to Uber’s pricing algorithm being reminiscent of a cartel whereby their pricing activities are distorting market competition. Such empirical research similarly evidenced this sentiment by illustrating its workings in practice in the UK Private Hire and Taxi market, leading industry experts to call for investigations by the Competition and Markets Authority (CMA). Similarly, examination of the Uber Files leaked by The Guardian<sup>49</sup> in 2022 revealed whistle-blowers exposing how the firm pressured global governments to rewrite and reform laws in their interest. This has implications for legislation and policy in the UK and I call on regulators to reassess Uber’s suitability as a fit and proper operator in the UK. The thesis also suggests policy reform regarding the electrification of the UK Private Hire and Taxi market. Forming part of the Action Research cycles of Study Two, a study group led by the firm was created to find new ways of thinking and to plan changes (Repenning *et al.*, 2018) and culminated in a proposal for a collaborative project between local authorities and the private hire firm to help co-develop a suitable infrastructural environment, with financial viability, that enabled the best interests of the micro-level community to be served.

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<sup>49</sup> The Guardian (2017). Uber Files: 124,000 confidential documents leaked.  
<https://www.theguardian.com/technology/2017/jul/15/uber-files-124000-confidential-documents-leaked>

Finally, this thesis goes beyond the realm of academic exploration and policy advising but offers itself as a learning tool for practitioners. Practitioners working in the industry can use Study One to become more informed about the realities of disruptive tendencies at play and as a reference point for strategies to combat market threats. Study Two should encourage practitioners to lobby dominant forces to influence policy decisions in a way that is beneficial to both the meso and micro-level actors. For practitioners in the position of family business custodians and successors in particular, Study Three can be used as a guide to aid them in navigating this challenging transition process. This Study, due to its methodological nature, can support successors emotionally, allowing them to recognise and address the human and personal consequences of succession by using my poetic expression as a prism to reflect on their own family business. Thus, highlighting that successful succession transitions are possible beyond the second generation and that tradition and innovation are not two competing forces (De Massis *et al.*, 2016), and conversely are required to work in tandem to accommodate positive succession and adapt and thrive in changing circumstances (Teece, 1997). By connecting the two, this encourages successors to benefit from entrepreneurial legacy whilst equipping themselves with suitable knowledge, understanding of the marketplace, appropriate strategies, and technologies. Finally, reiterating the need for Newcastle University and other institutions to expand current curriculum by designing and launching a dedicated ‘Family Business’ module to better inform prospective successors of the distinct nature and challenges of inheriting family firms.

### **7.3 Limitations and Further Research**

The key limitation of this thesis is linked to bias and a lack of representation within my data. Authoring this thesis as a researcher-practitioner and as an insider has afforded me unique insight and access to imperative networks and data throughout this thesis. This position also required robust reflexivity to ensure that findings were valid, credible, and dependable rather

than reflecting solely the personal perspective of the researcher (Stringer, 2007). However, despite gaining access to intimate experiences and inimitable sources of industry knowledge which extracted the tacit, unearthed aspect of the industry (Boyle and Parry, 2007), it is recognised that there is a lack of data contribution from the government and Uber – two major subjects of my research. Despite attempts to engage with these parties, it was challenging to collect data directly from these sources. The lack of this data availability resulted in the inability to extend my analysis to capture the positions of these actors across my qualitative methods for data gathering. Thus, unable to broaden the findings by including new perspectives from key industry players, demonstrating a reliance on the insider's first-hand industry role, which may limit the ability for more representative third-party validation. Therefore, if access to this data were to become available, future research could focus on obtaining further information about disruptive innovation, competitive response and government policy on climate change and vehicle electrification from participants that were beyond my scope of reach. This, I believe would augment the thesis' robustness. Furthermore, the time-sensitive nature of writing a PhD thesis is a limitation given the rapidly evolving nature of this industry. In essence, what is relevant at the time of research gathering may quickly become outdated with shifts in market dynamics, new innovations, and changes in both firm-level and macro-level environments. To combat this, each paper could be extended to longitudinal studies conducted over more extended periods to capture long-term trends and impacts of innovation, policy change and family business succession. Future research could pair longitudinal studies with a scenario analysis model where potential future developments and their implications are anticipated, using study outputs, and then monitored and tested against real-life outcomes.



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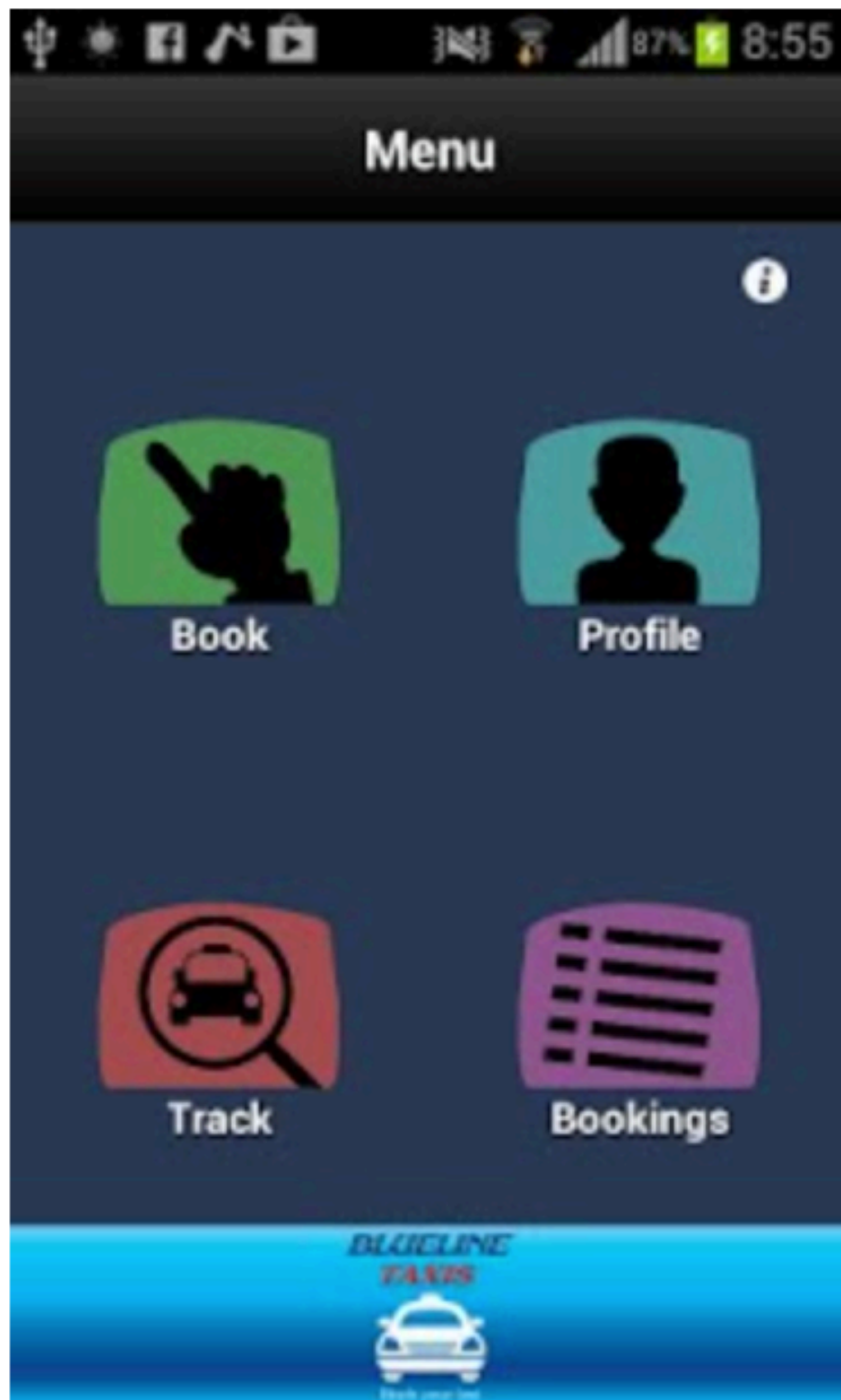
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## Appendix A (Study One)

Figure 4.1 - Incumbent firm first App Booking Screen in operation before Uber launched in the UK market



**Table 4.1:** Data Sources, including: legal documents, news and media, Uber’s publications and Other.

Data Source	Examples (not exclusive to):
<b>Legal Documents</b>	<ul style="list-style-type: none"> <li>- <i>Uber BV v Aslam &amp; Ors</i> [2021] (UK Supreme Court), [2018] (England and Wales Court of Appeal), [2017] (UK Employment Appeal Tribunal), [2016] (UK Employment Tribunal)</li> <li>- <i>Asociación Profesional Elite Taxi v Uber Systems Spain SL</i> [2017] (Court of Justice of the European Union)</li> <li>- <i>Uber and UTAG v Transport for London (TfL)</i> [2021] (UK High Court)</li> <li>- <i>Alpha Cars (Liverpool) Limited v Ejure</i> [2021] (UK Employment Tribunal)</li> <li>- <i>GoCarz v Eltaib</i> [2019] (UK Employment Tribunal)</li> <li>- <i>Transport for London v Uber London Ltd</i> [2015] (England and Wales Court of Appeal)</li> <li>- <i>United Trade Action Group Ltd, R (On the Application Of) V Transport or London</i> [2021] (England and Wales Court of Appeal)</li> <li>- <i>United Cabbies Group (London) Ltd, R (On the Application Of) v Westminster Magistrates’ Court</i> [2019] (England and Wales Court of Appeal)</li> <li>- <i>Uber London Ltd &amp; Ors, R (On the Application Of) v Transport for London (TfL)</i> [2017] (England and Wales Court of Appeal)</li> <li>- <i>Uber London Ltd &amp; Ors, R (On the Application Of) v Transport for London (TfL)</i> [2017] (Westminster Magistrates’ Court)</li> <li>- <i>Good Law Project Ltd v HM Revenue and Customs &amp; Anor</i> [2019] (England and Wales Court of Appeal)</li> </ul>
<b>News and Media</b>	<ul style="list-style-type: none"> <li>- Local news through extensive Google Searches, e.g.: MyLondon, Evening Chronicle.</li> <li>- National news through extensive Google Searches, e.g.: Financial Times, The Guardian, The Telegraph, BBC News, Evening Standard, Daily Mail.</li> <li>- International news through extensive Google Searches, e.g.: New York Times, Reuters, Bloomberg, LA Times.</li> </ul>
<b>Uber’s Publications</b>	<ul style="list-style-type: none"> <li>- Press Releases – accessed through extensive searches of Uber Newsroom.</li> <li>- Social Media (Facebook, Instagram, Twitter)</li> <li>- Uber website</li> <li>- Uber’s Initial Pitch Deck</li> <li>- Uber’s Financial Reports (Accessed through Uber Investor)</li> <li>- Uber’s IPO Prospectus</li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>- <i>Taxi licensing—what’s the operator principal principle and does a driver ply for hire when using a ride hailing app? (UTAG &amp; Uber v TFL)</i> (Wilson, 2021) Lexis Nexis.</li> <li>- <i>ITR Global Tax 50 2021-22: UK Supreme Court ruling on Uber</i> (Jones, 2022) International Tax Review</li> <li>- <i>Divisional Court clarifies rules relating to private hire vehicle operators in London</i> (Wilson, 2021) Cornerstone Barristers.</li> <li>- Super Pumped: The Battle for Uber (2019) [BOOK, MIKE ISAAC]</li> <li>- North Tyneside Council Private Hire Trade Consultancy Meeting Minutes</li> <li>- Newcastle City Council Private Hire Trade Consultancy Meeting Minutes.</li> </ul>

**Table 4.2:** Research Participants: a summary of purposive sample participants taking part in this study.

Participant	Organisation	Trade Experience	Location
PC1	*** Licensing	Licensing Advisor (25+ years direct trade experience)	National
PC2	Freelance Consultant	Formerly Private Hire Operator and Transport for London (Policy) (40+ years direct trade experience)	National
PC3	***** Taxis	Private Hire Operator (35+ years direct trade experience)	North East
PC4	Freelance author and journalist	Cycling and Sustainable Transport (8+ years direct trade experience)	London
PC5	*****	Technology provider (dispatching platform, customer app and driver app) (12+ years direct trade experience)	Dublin
Lead co-author	***** Taxis	Third generation of family-ran UK Private Hire Operator, and current Finance Director. (9+ years experience)	North East



**Table 4.5:** Themes, Transcript Excerpts, and lead co-author's Professional Reflection

Themes	Transcript Excerpts	Lead co-author's Professional Reflection
Financial Approach	<p>“Well the disruptiveness from my personal opinion was the fact that they came in and the bought the work with VC money, their intention was to destroy the traditional taxi business by offering the public fee rides, offering driver huge incentives. And that was unfair competition in my mind because they just simply could go out and buy, buy, buy, buy, and in the hope that people would collapse.” (PC3)</p>	<p>In line with the participants’ observations, it became apparent that Uber’s user and driver acquisition strategy in my business’ city was underpinned by their access to VC funds. With such significant investment, the firm attempted to attract both riders and users by undercutting traditional operators like us by subsidising the market value.</p>
	<p>“Their intention was to destroy the traditional taxi business by offering the public fee rides, offering driver huge incentives.” (PC3)</p>	<p>For example, in the firm’s region, subsidised offerings included:</p>
	<p>“And where that's bad is it reduces options for passengers and will ultimately lead to a single large group that can have control over pricing.” (PC5)</p>	<ul style="list-style-type: none"> <li>a) £10 worth of rides for ‘User A’ for every contact that signed up using User A’s unique referral ‘code’</li> <li>b) £25 off your next 10 rides.</li> <li>c) £1,000 sign-on fee for any driver that completes 500 journeys</li> <li>d) 50% reduced fees for drivers that recommend another driver</li> </ul>
	<p>“So, what it's done is it's used its corporate might to barge its way into various markets by essentially undercutting by subsidy” (PC4)</p>	
	<p>“They are simply using venture capital fund into buy their way through markets.” (PC4)</p>	<p>From a management perspective, in my role as Finance Director for an incumbent, I decided that it was best not to replicate Uber’s subsidy model, given that it could: lead to a ‘race-to-the-bottom’ in terms of pricing, both posing a risk to the firm’s profitability and potentially leading to a reduction in quality-of-service provision in the long-run.</p>
	<p>“But really when you look at companies that are subsidizing trips by up to 50%, you think that's not a business model, so it cannot be disruptive. And I think even if their target was to get rid of all the other companies and ended up as a dominant supplier, they'd failed miserably because they haven’t done that.” (PC2)</p>	
	<p>“You know, if they're charging below cost, low below market price then clearly, they should be stopped, but, you know, it's very difficult to police that, so they have to be on top of this. And I think undercutting their own</p>	<p>This approach carried risk, as there remained the possibility that passengers, in particular, would opt for the supplier with the cheapest (due to subsidisation) rates, thus attracting drivers. However, as highlighted by the participants, the surcharge feature was introduced by Uber. I noticed, locally, that lots of customers</p>

	<p>prices would be cutting off their nose to spite their face, frankly. But they are put in a very difficult position and all Uber is trying to do is to squeeze them out so that they can then establish a monopoly. It's just about that.” (PC4)</p> <p>“And I think things like surge pricing in the Uber markets, was a great incentive and a great excitement for drivers. You know, from one time when there was a bomb alert in somewhere in Australia, as soon as they see that somebody needs taxis, be it just a busy day, a busy event or a city scare because of a bomb alert, they hike the prices up. They just want the money” (PC3)</p> <p>“You could argue that they disrupted the model in terms of how drivers are under income, how to get paid.” (PC5)</p> <p>“I think what held Uber back was they were wanting 25% take from a driver against what was working, you know, with us was about 14%.” (PC3)</p> <p>“No, I wouldn't describe them as being disruptive in the normal sense of the term, which is normally a technology disruptive. I think Uber are what I would call financially disruptive. And I think what they've done is taken VC money, generally used it fairly badly - most of the incumbents are still in business and most the incumbents doing pretty much the same as they were doing before Uber and Co locked up. And I think as opposed to somebody who disrupted the airline industry like EasyJet or Ryanair, where they made real changes.” (PC3)</p>	<p>complained about increased fares and surging at specific times when demand outstripped supply, which overall, outweighed the benefit initial subsidy positivity.</p> <p>By avoiding engaging in subsidisation, and by opting not to introduce surge pricing (which was unpopular), I remained competitive from a pricing perspective.</p> <p>Similarly for drivers, as highlighted by PC3, despite enticing incentives, I was able to offer drivers a weekly fixed fee that, once converted to percentage terms, bettered that of the market entrant over a longer period.</p> <p>Consequently, my experience exemplifies PC2’s statement that ‘most of the incumbents are still in business and most the incumbents doing pretty much the same as they were doing before Uber and Co rocked up.’</p>
Regulatory Approach	<p>“Well, I mean, that's difficult. I think, what they have to push for is a level playing field. And really if the competition and markets authority was more active they could look at what is happening in particular towns and cities. But you know, I remember that it wasn't called a competition of the market authority. It was called monopolies and mergers commission or whatever. But at the time when the bus companies, which we mentioned earlier, Stagecoach</p>	<p>As the only operator in the region to be licenced by all local authorities, I understand and value the importance of local regulatory frameworks. To navigate through the complexities that arise through managing different licencing requirements, I have a dedicated internal team as well as a contracted licensing advisor.</p>

<p>and the likes were establishing sales in various markets there was something like 27 references to the monopolies commission at the time in various places. Darlington was the most famous, where I recall stagecoach actually ran free buses and squeezed out the existing local corporation player. So it needs the competition authorities to be very active.” (PC4)</p> <p>“And I think in the UK, I mean, if you look particularly, you know, England and Wales, if you look at the 1976 Act, I mean, it comes from what, 1976. So, there's no talk of telephones even, yet alone mobiles, and apps, and all the other stuff that goes on credit cards and all that. The 1998 act is not much different” (PC2)</p> <p>“I guess there's a lot of soft corruption stuff there as well. And pulling strings and important places which has allowed them to sort of, you know, take control of some key markets like London.” (PC4)</p> <p>“I think when it first came to London I mean, this always sounds a bit ridiculous, but it's all true that [SENIOR UBER EXECUTIVE] was in [UK GOVERNMENT BUILDING], the ear [SENIOR UK POLITICIAN], the ear of the [SENIOR UK POLITICIAN]. The [SENIOR UK POLITICIAN] was determined that London should become the tech startup capital of Europe, and he was prepared to do anything he could. I mean, most things start out with good intentions. He was prepared to do anything he could to make London the UK tech startup capital of Europe. And therefore people like Uber were the kind of people he wanted to attract to London and therefore put inordinate pressure to just let just let Uber get away with it.” (PC2)</p> <p>“I just think they've broke the law in the UK. And they've simply have took no notice of the rules and regulations. You know, if you want to look at UK taxi law, the law states the invitation and the acceptance of a booking must be made by the operator at the licensed premises. And a number of things must be in place. Uber has always argued various things that they are not an</p>	<p>This regulatory complexity, summarised by PC2, has benefitted us in some ways, given that Uber’s expansion into some licensing districts has been halted due to the inability to gain a licence, and as such, has restricted their ability to compete against us in certain regions in which the firm operate.</p> <p>Conversely, other regulatory practice has had detrimental effects to us as a business. Notably, as the participants underline, mirroring US-focussed commentary (Garud 2020), Uber’s regulatory approach from two angles: firstly, the disregard for legislation and secondly, the ability to engage with influential political figures.</p> <p>As an incumbent operator, I feel that Uber has been able to harness its profile to engage in non-market strategies with influential people, be-it politicians and/or other key decision makers, which has led to favourable outcomes to Uber when faced with legal challenges. Various participants, with first-hand knowledge and access to information, allude to this as a strategy employed by the firm.</p> <p>In agreeance with the explicit suggestions made by PC4 and PC2, my view is that Uber’s historical regulatory breaches warrant a full review by the Competitions and Markets Authority since incumbents, like us, have been competing against monopolistic business practices enabled by regulatory disregard.</p> <p>Although licences have been revoked by TfL London, other local authorities nationally, like ours, have not challenged Uber, despite the firm operating with the same practices.</p>
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operator, and they are purely a technology company and they had nothing to do with the booking, you know, and that was stated in the Canadian Supreme Court by one of their managers, that they had nothing to do with the booking and did not control the booking. Yet they come to the UK, they exercise that, and because of the size and the power of them, people became, certainly local authorities, because they were scared of the costs it would cause them.”

(PC3)

“So you want to get a city, that's what, 5% the size of London, and you've got to deal with 10 different licensing authorities. One's got silver cars, one's got a grey cars, one you can't drive on a Sunday, one you can't travel on a Tuesday. You know it's all this nonsense so ends up really, really expensive for them to do. And I think that was their problem. I think New York, Paris and London were fine. That was really the territory they're used to, you know, high spenders, low regulatory bar and people who couldn't care less which company as long as they get home cheaply. And I think that was that was the big problem once they got outside of London.” (PC2)

“They have basically not engaged with the regulatory front and framework and environment to come into the taxi industry and basically did whatever they wanted.” (PC5)

“Well, Uber has had a number of issues as far as that's concerned. They've been prosecuted numerous times successfully with regards to insurance offenses. They've had their operator's license refused twice at London, could even be three times now, begin to lose track. So, they certainly have had more difficulties from a regulatory perspective, than the majority of operators.”

(PC1)

“I mean, culturally they've never wanted to be involved in regulated industry. They've always wanted to play by their own rules and do what they want to do and do it their way. I think culturally they're into monopolies, they're into

	<p>running without rules and regulations. I think they treat courts and tribunals and things with utter contempt. It needs full investigation by competition lawyers.” (PC2)</p>	
<p>Competitive Response</p>	<p>“It was definitely reactive. I don't think anybody recognized what was coming and if they had any inkling of what was coming, nobody knew how to respond to it. So, there was no strategic planning to deal with that at all. So, it's definitely been reactive.” (PC1)</p> <p>“And what kept us strong was I believe was customer loyalty to our brand. I think there are a certain number of drivers who have loyalty and have values towards that. We have become a brand and they've continued to support that brand” (PC3)</p> <p>“Then we also saw that it was a greater focus placed on corporate accounts and cash work and that perhaps they adjusted the charging structure on them that there was money being earned from the driver and from the accounts and from whatever the customer was. So there was admin charges being added on in multiple places.” (PC5)</p> <p>“I think on one side the good taxi and private hire companies looked at how they were different to Uber and how they could focus on that. So, you know, in some cases they realized that they had a very strong call center, that they were actually speaking with their customers quite a bit.” (PC5)</p> <p>“Another element could be perhaps certain segments of their customer base that Uber didn't address. So for example cash payments. So, you know, it would be hard to pay by credit card. So anybody that didn't have a credit card was a good one.” (PC5)</p> <p>“I think to a certain extent firms will be staying ahead because you've got a market that includes people who are not tech savvy. They do not necessarily</p>	<p>The participants’ observations of competitive response make good strategic management recommendations as they reflect well my successful decision-making and action as an incumbent, which has enabled the business to remain as market leader in the region.</p> <p>It is worth noting that the firm’s competitive strategy was implemented once Uber had arrived, as the firm had not horizon scanned and pre-empted their launch in my city. Since that point, to date and in future, the business is far more alert of scanning the marketplace for potential new threats/market entrants and advise this as good practice to the team.</p> <p>Principally, participants focus on how incumbent firms continued to employ traditional modes of operating that were not part of Uber’s business model, such as: telephone and web-booking, prebooking, acceptance of cash payment, bespoke corporate travel, operating in rural areas and a personal customer service. The family firm’s local brand reputation and identity also helped us reinforce these success factors.</p> <p>In doing so, the firm were able to continue servicing this large pool of customers who did not prefer e-booking, and this was its most effective method of combatting Uber. In other words, the business was able to offer services and facilitate bookings in a way that they could not compete with. This became a core focus of its marketing to customers – both passengers and drivers.</p>

<p>have a smartphone, never mind an app, so they can't book with Uber because they want to do it by telephone” (PC1)</p> <p>“There's probably a feeling in the industry that one of the things that the traditional operator provides that Uber doesn't, is the ability to book in advance.”</p> <p>“But our experience was that the private hire and taxi industry, they weren't prepared for it. They didn't see it coming. They made no advanced plans and we're just completely reactive to it.” (PC5)</p> <p>“The technology was great, but there was no human intervention and no human service. And sometimes, both your driver, and your customer, would like to have a personal service.” (PC3)</p> <p>“We were looking at our phone system with IVR and we were looking at web bookers and app, it was the big thing. We used a firm called iCabbi's app to start with which was quite good and our customers, our loyal core customers use that app quite efficiently even before Uber turned up. And that certainly has been added to our app since, because we decided to consolidate with other operators around the UK and we joined funded an app that was going to be of equal quality as Uber's and it took some time to do that. We thought that was going to be, maybe a 12 month project and it was going to cost us X amount of pounds. We never envisaged the amount of work, resources and money to continually have an upkeep with app. As platforms changed, iOS change the software as Android do it is constant funding.” (PC3)</p>	<p>Additionally, despite putting focus on these traditional methods of operating, firms like ours had already begun to digitalise in the years leading up to Uber's inception. Already operational in the market, the firm had its own taxi booking app and customers were readily using. Outside of the market, I believe there is a misconception that Uber were the creators of 'app-booking' and were revolutionary with this development, whereas in reality, firms were using these platforms already.</p> <p>Despite this, participants do correctly convey how incumbents, like us, had to continually invest in its technology to advance it to a level of sophistication that rivalled Uber's. My company, along with a series of other national operators, embarked on a joint-venture project to pool together both knowledge and funds to achieve this. To provide insight into its success, the firm still uses this operating platform today, as the region's market leader, completing over 50% of its bookings via app.</p> <p>Reflecting on its continued status as industry leader in terms of fleet size and journey completion in our region, my persistence in pursuing its existing business model and traditional modes of operating has been a successful strategy.</p>
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**Table 4.6** – Interview Questions

Potential Questions to Guide Semi Structured Interviews
2. Explain how the emergence of ride-hailing firms has impacted the UK Private Hire and Taxi market?
3. Did anyone prevision this impact? Was it what was expected, or different?
4. What do you think has actually been disrupted?
5. How have these new market entrants disrupted the industry? What tools have they used to do so?
6. How do you think government policies and regulation have aided/prevented disruption? Do they have a role?
7. What has the impact been on customers?
8. What has the impact been on drivers?
9. What have firms done to compete and respond?
10. Do you think it is fair competition?
11. What are the main differences that distinguish the operations/business models/strategy of incumbents vs. new e-hailing firms?
12. How do you think these disruptors will further disrupt the industry? Are there preparations in place for that?
13. How have your traditional operating practices been affected?

## Appendix B (Study Two)

**Table 5.1:** Complex Documents analysed as part of data collection process.

Data Source	Examples (not exclusive to):
<p><b>Net Zero Policy Documents (Government and Local Authority)</b></p>	<ul style="list-style-type: none"> <li>- Net Zero Strategy: Build Back Greener (HM Government)</li> <li>- Net Zero Review Final Report (HM Government)</li> <li>- Transport Decarbonisation plan (HM Government)</li> <li>- Net Zero in the North East: Regional transition impacts (Department for Business, Energy and Industrial Strategy)</li> <li>- Zero Carbon, Zero Poverty: Our 5-point plan (North East Combined Authority)</li> </ul>
<p><b>Independent Reports</b></p>	<ul style="list-style-type: none"> <li>- Net Zero – Technical Report (Climate Change Committee)</li> <li>- Net Zero – The UK’s contribution to stopping global warming (Climate Change Committee)</li> <li>- Independent Assessment: The UK’s Net Zero Strategy (Climate Change Committee)</li> <li>- Net Zero after Covid: Behavioural Principles for Building Back Better (Climate Change Committee)</li> <li>- The UK’s transition to electric vehicles (Climate Change Committee)</li> <li>- The role of business in delivering the UK’s Net Zero Ambition (Climate Change Committee)</li> <li>- Building a low-carbon economy – the UK’s contribution to tackling climate change (Climate Change Committee)</li> <li>- Net Zero by 2050 (International Energy Agency)</li> <li>- The Net Zero transition: What it would cost, what it could bring (McKinsey)</li> <li>- Energy for Growth Strategy (North East LEP)</li> </ul>



**Table 5.2:** Firm-level and external interview participants

Participant	Role	Internal or External to Firm
PC1	Managing Director at Private Hire Firm	Internal
PC2	Operations Director at Private Hire Firm	Internal
PC3	Head of Fleet at Private Hire Firm	Internal
PC4	Driver Liaison at Private Hire Firm	Internal
PC5	Driver Liaison at Private Hire Firm	Internal
PC6	Dispatcher at Private Hire Firm	Internal
PC7	Driver at Private Hire Firm	Internal
PC8	Driver at Private Hire Firm	Internal
PC9	Head of Garage Services at Private Hire Firm	Internal
PC10	Mechanic at Private Hire Firm	Internal
PC11	Head of Human Resources	Internal
PC12	Managing Director of Net Zero Consultancy	External
PC13	Development Lead of Global Taxi Dispatching System	External
PC14	Legal and Licencing Consultant	External
PC15	Business Advisor	External
PC16	Vehicle Leasing Firm Owner	External
PC17	Managing Director at Private Hire Firm in another major UK city	External

**Table 5.3:** Factors considered by the CDT for a weighted multi-criteria decision-making analysis

	<b>Criteria</b>	<b>Data Provider</b>	<b>Data Preparation</b>	<b>Classification</b>
<b>Factors</b>				
<b>Environmental</b>	Slope of land	OS	Raster Calculation	0 = High Priority 1 = Low Priority
	Temperature	Met Office	Raster Conversion	0 = Low Priority 1 = High Priority
<b>Economic</b>	Land cost	UK Data Service	Raster Conversion	0 = High Priority 1 = Low Priority
	EV ownership (per square hectare)	DfT	Raster Conversion	0 = High Priority 1 = Low Priority
	Proximity to substations	Northern Powergrid	Euclidean Distance	0 = High Priority 1 = Low Priority
<b>Urban</b>	Density of taxi pick-up clusters	Local taxi company	Euclidean Distance	0 = High Priority 1 = Low Priority
	Proximity to route network	Local taxi company	Kernel Density	0 = Low Priority 1 = High Priority
	Proximity to petrol stations	OS	Euclidean Distance	0 = High Priority 1 = Low Priority
	Distance from rapid EVCSs	OS	Euclidean Distance	0 = High Priority 1 = Low Priority
	Distance from slow EVCSs	DfT	Euclidean Distance	0 = Low Priority 1 = High Priority
<b>Constraints</b>				
<b>Environmental</b>	Woodlands	OS	Raster Conversion	0 = Suitable 1 = Unsuitable
	SSSI	DEFRA	Raster Conversion	0 = Suitable 1 = Unsuitable
	AONB	DEFRA	Raster Conversion	0 = Suitable 1 = Unsuitable
	National parks	OS	Raster Conversion	0 = Suitable 1 = Unsuitable
	Flood risk areas	Environment Agency	Raster Conversion	0 = Suitable 1 = Unsuitable
	Water resources	OS / Environment Agency	Raster Conversion	0 = Suitable 1 = Unsuitable

**Table 5.4:** Reworking of raw field notes into meaningful text using Jawzabkowski’s three-stage framework

<b>Original Field Notes</b>	<b>Reworked notes after implementing Jawzabkowski’s three-stage framework</b>
<p>The cost of vehicles is a big issue tbh bc they are £££ and how LA’s think SE drivers can afford to upgrade their cars to comply with regs is something I think has not been considered. Gov subs – not enough.</p>	<p>The Managing Director echoed other firm-level participants concerns about the cost of vehicles, outlining how this was a major issue of concern due to them being, in his words, extortionately expensive - in line with Li <i>et al.</i>’s (2016) research. He voiced concerns, with a frustrated and angered tone, that local authorities and national government believed that the subsidies being offered were enough to help self-employed drivers comply with the regulations they were putting place. Facial expressions and gesticulation created an air of agitation.</p>

**Table 5.5:** Illustration of how data was coded to form micro-themes and main themes.

<u>Main Themes</u>	<u>Micro Themes (Samples)</u>	<u>Data (Samples)</u>
<p>The readiness of market-suitable vehicles for e-taxi use.</p>	<p>Lack of electric vehicle model range</p> <p>Higher asset cost of electric vehicles and cost of charging</p> <p>Mechanical differences for maintenance purposes</p> <p>Topography</p>	<p>‘The cost of these new electric vehicles is extortionate compared to what we can get second-hand diesel and petrol cars’ (Int)</p> <p>The drivers looked concerned and worried when talking about their inability to go out and purchase a new vehicle due to their economic conditions. One driver began to speak and voiced his concerns about the lack of government support, noting how insufficient the local authorities' funding was going to be. The others nodded in agreement and one interjected to add ‘They’ve got to remember we’re the ones footing the bill’ pointing his finger to himself whilst tapping his chest angrily. (CN)</p> <p>Some fleet owners have indicated that they believe the incentives available in the UK are not currently sufficient to encourage enough vehicle manufacturers to retool their operations for electric vans and create sufficient supply (Doc)</p> <p>‘How on earth do they think our trade can operate with electric vehicles as if it’s a prescript solution? They forget that some cities are colder than others, some are hillier than others... all of that needs to be considered before you put a blanket policy in place and assuming its adherable across the board’ (Int)</p> <p>For example, grants for passenger vehicle purchase could be gradually withdrawn once EVs reach price parity with conventional petrol and diesel vehicles and then redirected to vans (Doc)</p>

<p>The lack of infrastructural provision to support e-taxi fleets</p>	<p>Range anxiety</p> <p>Operational uniqueness of taxis and the need for quick refuelling/recharging</p> <p>Cost and availability of land needed to install taxi charging points</p>	<p>The dispatcher contributed hastily – often with valid points but evidently wary not to sound as if they didn’t know how to do their job. ‘I don’t quite know how I’d go about that’ was one remark, looking dejected and slightly confused. Their concerns had been voiced by other participants, however – vehicle range and range anxiety when attempting to dispatch work effectively. (CN)</p> <p>‘The thing that baffles me is that they’re putting these policies in place for the taxi market, and have been installing charging stations, albeit nowhere near enough to sustain the full private hire trade’ and nobody has knocked on our door about where we’d want them or where we think they’d be best placed for our operational needs. There’s just not enough of them as it stands, and probably not enough by the time this policy comes into play’ (Int)</p> <p>When making a long trip, behaviour suggests that new EV drivers are uncomfortable making trips close to the range capacity of their vehicle, and that a degree of this effect remains. This means that the maximum used range of EVs is lower than their actual range. The percentage buffer that new and experienced drivers allow is known as the range anxiety factor (Doc)</p> <p>‘At the moment, if a driver runs out of fuel, and even if that were mid-journey with a customer, they can refuel very quickly and be on their way again. But with electric, that gets thrown out the window. Charging time is significant and that hinders the operational flexibility and nimbleness.’ (Int)</p> <p>Provision of charging infrastructure is key to enabling the high uptake of EVs across the UK. We expect around 260,000- 480,000 public chargers to be required by 2040 (Doc)</p> <p>The study also assessed the costs of installing chargers. It found that to meet the central EV uptake scenario requirement of around 25k additional chargers would cost around £530m based on current capital costs. This could be met through a mix of private and public investment. (Doc)</p>
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<p>The business modelling complications of taxi electrification.</p>	<p>Financing of assets and factoring debt provision</p> <p>Lack of knowledge and expertise with regard to electrification</p> <p>Readjustment of income/sales model</p> <p>Lack of suitable technology</p>	<p>‘Inevitably, we are going to have to find a way to factor vehicle charge into our dispatching algorithm. How we do that is challenging.’ (Int)</p> <p>He pointed to the window which looked out onto a large compound filled with cars. ‘You see all those?... There’s not a penny owed on any of them’, he said proudly. ‘I don’t want to be forced into a position where I’ve got debt up to my eyebrows because the only cars I can buy are now double the price and I’ve got to borrow’ he added forcefully and passionately, clearly loyal to his values. He then relaxed back into his seat and took a sip of tea which seemed to cut the tension as the conversation then continued. (CN)</p> <p>‘I’ve been a mechanic for 17 years now, never touched an electric car. Wouldn’t know what to do with one. I’ve heard horror stories too. They can be awfully dangerous. It does worry me because I wonder whether this industry will need a whole new breed of mechanic who has been trained up that way and us older lot will get pushed to the side’ (Int)</p> <p>‘To be ready for and support the acceleration of the UK’s Net Zero objective, many businesses in the UK will need to fundamentally change their operations, their business models, their approach to climate risk assessment and planning, and their relationships with investors and consumers.’ (Doc)</p> <p>For the UK to achieve the transformation to Net Zero by 2050, government policy and UK corporate action must work in concert to bring about the technological, behavioural, business model, and policy changes needed to continue to reduce emissions at rapid pace and large scale. (Doc)</p>
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*Data extracts coding: ‘Int’ (for participants’ direct verbatim contribution during interviews), ‘CN’ (for composite narrative extracts) and ‘Doc’ (for extracts of complex documentation)*

**Table 5.6:** Interview Questions

Stakeholders	Questions
Internal Stakeholders (Firm)	<ol style="list-style-type: none"> <li>1. Do you agree that there is a need to grow the charging network by circa 70 chargers, as per the CDT report?</li> <li>2. If you need a minimum of 70 new charging points as per the CDT report, how will you go about achieving this?</li> <li>3. What operational challenges will it present?</li> <li>4. Will there be any technological requirements internally to electrify?</li> <li>5. With regards to vehicle maintenance and repair, what are the opportunities and challenges?</li> <li>6. What will be the impact on customer experience?</li> <li>7. If a driver's shift averages 12.5 hours and 250km as per the CDT report, where and when do you foresee them charging if they do not have a home charger?</li> <li>8. Do you think customers are willing to pay a premium for electric rides?</li> <li>9. Do you think Newcastle City Centre can accommodate the proposed charging point increase as suggested by the CDT?</li> <li>10. The CDT report has mentioned the need for chargers in Newcastle city centre as well as in areas like Peterlee and Blyth – do you think drivers in those areas will face specific obstacles?</li> <li>11. Do you think mass fleet electrification is possible under current government policy?</li> </ol>
External Stakeholders	<ol style="list-style-type: none"> <li>1. What do you think are the best practices are for firms making this transition?</li> <li>2. How are dispatching systems being adapted to accommodate ZEVs? What are the implications?</li> <li>3. Are there any regulatory or legislative challenges with regard to this market change?</li> <li>4. What insight can you give with regard to the cost of purchasing and leasing an electric vehicle?</li> <li>5. Do you think electrification will affect the financial stability/position of firms?</li> <li>6. Will there be an impact on local communities, concerning to access to charging</li> <li>7. What do you think the general feelings across stakeholder groups are?</li> <li>8. What will be the overall benefits of electrification?</li> <li>9. Do you think mass fleet electrification is possible under current government policy?</li> <li>10. What will be the overall challenges of mass fleet electrification?</li> </ol>

## Appendix C (Study Three)

**Figure 3:** Intergenerational storytelling and legacy building through the gifting of founder-produced poetry from first generation to second and to third.

