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How property developers make decisions: Dublin 2010 – 2020

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Abstract

Property developers make crucial decisions that determine the shape and feel of our towns and cities, yet there is little consensus on how these decisions are made. This research asks how property developers make real-life decisions in a development process that is widely acknowledged to be complex and uncertain. It contributes to the growing body of research on developers that rejects the simplistic economic understanding of developers as predictable rational actors. To do this a new conceptual framework is developed that incorporates both the broader social and psychological dimensions of how decisions are made. The research design takes the form of a case study so that context can be considered because property developers' actions and decisions are known to be embedded into a prevailing local institutional context – Dublin from 2010 to 2020. This research argues that public sector relationships are used to influence, bypass and reshape policies in an attempt to reduce uncertainty. On the other hand, private sector relationships appear more nuanced where those relationships that secure resources such as equity funding are often deeply personal and trusting, and those that deliver market rich information depend on developers being more widely connected in social and loose networks. It is clear that it is the entrepreneurial characteristics such as creativity, drive and organisation skills that define the developer's role in the development process. The broader psychological dimensions of the conceptual framework used in this research reveals that longer-term decisions with more uncertain outcomes are arrived at through intuitive, emotionally charged psychological decision processes. The behavioural economics literature foregrounds the extensive use of heuristics and points to the clear dangers that can result from relying on this type of decision making. However, this research argues that in complex uncertain decision environments where the decision outcome is longer term, property developers plumb the deep resources of their experience gained through successive development cycles. By doing this a set of patterns, or mental short-cuts is recognised that through habitual use has proved successful in the past. Finally, this research throws light on the behaviour that results from considering decision making through this new conceptual framework. It finds that experienced place-based local property developers pay greater attention to deep trusting relationships to achieve their objectives which is distinguished from institutional and novice developers. By differentiating between experienced and novice developers, this study developed the old institutionalists' ideas of the power of intuition and the importance of developing habit through experience.

Table of Contents

Abstract i

List of Tables vii

List of Figures viii

List of Appendices ix

Acknowledgements x

List of Abbreviations xii

CHAPTER 1 - Introduction

1.1 Why focus on developer decision-making? 1

1.2 Property development - a sequence of linked decisions 1

1.3 Place-based entrepreneurs 3

1.4 A focus on Dublin – the decade to 2020 4

1.5 Research questions 5

1.6 A roadmap for the thesis 5

PART 1 – TOWARDS A NEW CONCEPTUAL FRAMEWORK 8

CHAPTER 2 - Perspectives from the Development Process

2.1 Introduction 9

2.2 Traditional perspectives of the development process 9

2.2.1 Development process – the events and decisions 11

2.2.2 Acting alone in an abstract market 16

2.2.3 Issues with appraisal models 18

2.3 Modern perspectives from the development process 22

2.3.1 Institutionalism, uncertainty and risk 25

2.3.2 A socio-cultural decision-making conceptual framework 33

2.3.3 Embedded in local development markets 33

2.3.4 Relationships, trust and uncertainty 36

2.3.5 Culture, influence and market performance 38
2.3.6 Place-based – non-place-based behaviour 42
2.4 Conclusion 43
CHAPTER 3 - Perspectives from Psychology
3.1. Introduction 44
3.2. Property developers 45
3.2.1 Organiser and entrepreneur 45
3.2.2 Characteristics – control, innovation and drive 46
3.3 A behavioural economics perspective 47
3.3.1 The heuristics and bias research 49
3.3.2 Heuristics in decision-making – concepts and evidence 50
3.3.3 The importance of believing in it 52
3.3.4 Framing matters 54
3.4 Cognitive processes – decision-making under uncertainty 55
3.4.1 Tension between two types of thinking – a classic view 55
3.4.2 The emotional brain 59
3.4.3 Towards a new psychological decision-making conceptual framework 60
Identifying entrepreneurial intuitive processing 61
Uncertainty in the decision environment 62
The role of experience 63
The role of emotion and affect 65
3.5 Conclusion 66
3.6 A new conceptual framework 67
3.6.1 A socio-cultural perspective 68
3.6.2 A psychological perspective 69
3.6.3 Real-life development decisions 71
PART 2 – REAL-LIFE DEVELOPER DECISION-MAKING 72

CHAPTER 4 - Research Strategy and Methodological Design

4.1 Introduction 73

4.2 Research context and strategy 74

4.2.1 What is known 74

4.2.2 The strategy 76

4.2.3 What is knowledge 78

4.2.4 Whose reality? 79

4.3 The case study design 81

4.3.1 Case selection and design 83

4.3.2 Methods and data sources 86

4.3.3 Selection and classification of interviewees 89

4.3.4 Qualitative data collection 91

4.3.5 Data analysis 93

4.4 Ethical considerations and reflections 99

4.5 Conclusion 99

CHAPTER 5 - Development Market Context: Dublin 2010 - 2020

5.1 Introduction 101

5.2 Planning for development – distant local planning regime 102

5.2.1 Local planning in Dublin – areas of uncertainty 102

5.2.2 Centralising control - Dublin 2010 -2020 108

5.3 The development finance framework – culture and relationships 113

5.3.1 Development funding – new rules of the game 117

5.4 Development market and the rise of the Irish property developer 121

5.4.1 Development in Dublin 2010 – 2020 126

5.5 Conclusion 134

CHAPTER 6 - Developer - Private Sector Networks

6.1 Introduction 137

6.2 Embedded in local development market networks 138
6.3 Developer – funder relationships 139
6.3.1 Embedded in loose social and deeply personal relationships 140
6.3.2 Networks as information filters 147
6.3.3 Language, culture, and Influence 153
6.3.4 A diversity of strategies and behaviour 157
6.4 Developer – professional intermediary and end-user 158
6.4.1 Embedded in loose, social relationships 158
6.4.2 Networks as information filters 162
6.4.3 Acting on network information 165
6.5 Conclusion 167
CHAPTER 7 - Developer Public Sector Relationships
7.1 Introduction 171
7.2 Embedded or distant from the network? 173
7.3 Exploiting uncertainty in a complex framework 180
7.4 Influencing uncertainty 187
7.5 A diversity of strategies and behaviour 191
7.5.1 Experienced place-based developers 192
7.5.2 Experienced sector-based developers 195
7.6 Conclusion 197
CHAPTER 8 - Using the Intuition Heuristic
8.1 Introduction 201
8.2 Entrepreneurs and intuitive decision-making 201
8.3 Recognising and processing intuitively 202
8.3.1 Processing information intuitively - joining the dots 203
8.3.2 It's emotional 207
8.3.3 Experience matters 210

8.4 When to rely on your gut?....213
8.4.1 The right place....214
8.4.2 The right time....215
8.5 – Conclusion....219
PART 3 CONCLUSIONS AND CONTRIBUTIONS TO RESEARCH....222
CHAPTER 9 - Conclusions, Contributions and Future Research
9.1 Introduction....223
9. 2 Revisiting the starting point....223
9.2.1 Embedded in Informal networks and information certainty....227
9.2.2 Distant relationships....230
9.2.3 When to trust your "gut"....232
9.2.4 Place-based and non-place-based developer classification....235
Local private developers – "patience, deep pockets, good contacts."....237
Institutional developers – "is it on Main and Main?"....238
9.3 Reflections on how this research was carried out....239
9.4 Thesis Conclusions and Further Research....242
List of Appendices....247

List of Tables

Table 2. 1 Traditional, practice-led models of the development process.....11
Table 2. 2 Adams & Tiesdell's event-based model - key events and decisions.....14
Table 2. 3 Summary of Healey's (1991) critiques of the equilibrium models.....17
Table 2. 4 Hodgson's views on institutionalism.....24
Table 3. 1 Evans & Stanovich's dual-process type cognitive attributes.....56
Table 4. 1 Research themes and areas for research.....74
Table 4. 2 Methodological considerations - data sources and research questions.....77
Table 4. 3 Research questions and methodological considerations.....80
Table 4. 4 Property developer, development - a selection of case study research.....82
Table 4. 5 Dublin development market - a case study city.....85
Table 4. 6 Local development market - contextual sources and coverage.....86
Table 4. 7 Development information sources in Ireland - 2020.....87
Table 4. 8 Dublin development market database - criteria and parameters.....88
Table 4. 9 All private developments - Dublin 2010 - 2020.....89
Table 4. 10 Participant profile - 13 property developers.....91
Table 4. 11Qualitative data analysis selection process.....94
Table 4. 12 Thematic analysis - stages of analysis.....97
Table 4. 13 Sample code creation and testing - relationships.....98
Table 5. 1 Specific changes to the Irish planning framework 2010 - 2020.....108
Table 5. 2 SDZs Dublin - 2000 - 2020.....109
Table 6. 1 Local place-based private sector developer attitudes.....157
Table 6. 2 Local place-based attitudes to public sector.....196
Table 9. 1 Local private sector developer attitudes.....237

List of Figures

Fig. 2-1Adams & Tiesdell's event-based model of the development process 13
Fig. 3-1 Default-interventionist processing theories.....58
Fig 3-2 Parallel-competitive theories.....59
Fig. 4-1 Developer decision-making – a new conceptual framework 75
Fig. 4-2 Case study design – single case multiple units of analysis 84
Fig. 4-3 Dublin - four local authorities 84
Fig. 5-1 Hierarch of Irish planning system to 2010 103
Fig. 5-2 Location of SDZs Dublin 2000 - 2020.....110
Fig. 5-3 Office completions (sq.m.), Dublin 1990 - 2010.....122
Fig. 5-4 Private sector developments 'onsite' Dublin 2010 - 2020.....127
Fig. 5-5 All development by year and sector, 'onsite' 128
Fig. 5-6 Location of property development Dublin 2010 - 2020.....129
Fig. 5-7 Mapping development 2010 - 2020 - city centre concentration.....130
Fig. 5-8 A spotlight on residential development.....131
Fig. 5-9 Concentration of housing type by, local authority 132
Fig. 5-10 Different developers - Dublin 2010 - 2020 133

List of Appendices

Appendix 1 Interview Guide.....248
Appendix 2 Participant Information Sheet.....250
Appendix 3 CIS Database Parameters.....252
Appendix 4 Background to Planning and Development Legislation in Ireland.....254

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Declaration

"I declare that, except where explicit reference is made to the contribution of others, that this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution."

Printed Name: EIMEAR FALLON

Signature:

List of Abbreviations

ABP	An Bord Pleanála
BCMS	Building Control Management System
BTR	Build-to-Rent
CSO	Central Statistics Office
CAQDAS	Computer Assisted Qualitative Data Analysis Software
CIS	Construction Information Services
DoHPLG	Department of Housing, Planning and Local Government
DP	Development Plan
FDI	Foreign Direct Investment
GIS	Geographic Information Systems
GFC	The Global Financial Crisis of 2007/2008
IDA	Industrial Development Authority
IRR	Internal Rate of Return
IFSC	International Financial Services Centre
ISE	Irish Stock Exchange
LAP	Local Area Plan
NAMA	National Asset Management Agency
NPAD	National Planning Application Database
NSS	National Spatial Strategy
NPV	Net Present Value
PBSA	Purpose-Built-Student-Accommodation
PRS	Private Rented Accommodation
REIT	Real Estate Investment Trust
RPG	Regional Planning Guidelines
SDZ	Strategic Development Zone
SHD	Strategic Housing Development
The Board	An Bord Pleanála

1.1 Why focus on developer decision-making?

> "decisions of real estate developers... have become crucial elements in forming the future character of the urban economy"
> Fainstein (1994:2)

Fainstein's comment draws attention to the increasingly important role that private property developers have in the provision of the built environment. Despite the fact that this was written almost 30 years ago, it is perhaps more relevant today. Since 2008, the public sector has faced successive financial burdens as a result of the fallout of the GFC and the more recent challenges of the Covid-19 pandemic. Private sector developers are increasingly relied upon to mobilise the necessary resources to produce the commercial and residential properties that make-up the built environment.

It is widely acknowledged that property developers make decisions in a complex and uncertain process that occurs over a long timeframe and requires significant amounts of capital (Gore and Nicholson, 1991; Healey, 1991; Guy and Henneberry, 2002). Added to this is the quality of site specific information which is often incomplete, of poor quality and costly to obtain (Adair *et al.*, 2005; Coiacetto, 2009). Given these challenges, a general consensus has yet to be reached on how property developers make decisions. This research was conceived as a developer-orientated study to explore these ideas. A significant aspect of this is that it focusses on the real-life development decisions that resulted in the supply of commercial and residential buildings in Dublin, Ireland in the decade to 2020.

This introductory chapter sets out why exploring how property developers make decisions is important, why Dublin was chosen as a case study, the overall aim of the research and the embedded research questions. Finally, it also sets out a road map that signposts what is to come.

1.2 Property development - a sequence of linked decisions

Property development, developers and decision-making have been high on the research agenda since the 1990s. There are many reasons for this. Fainstein's quotation above draws on an important one, that the process, which is a sequence of linked decisions, shapes the

character of the built environment. At this time there was also increased emphasis placed on the private sector to provide commercial and residential property. As Coiacetto notes "[p]lanners do not build cities and towns. Rather, they are built by private sector interests, developers in particular. In order to shape urban development, planners have to influence the actions of the[se] players" (2000: 353). Adams, Croudace and Tiesdell also drew attention to the fact that if policy makers are to negotiate and influence developers' decisions and actions it is essential for them to "understand the motives, behaviour and modus operandi of developers" (2012: 2578). This tension between the private-sector motivations of property developers and the need for the public sector to direct and influence development is at the heart of research in this area.

Undoubtedly, the importance of policy makers to be effective at influencing how towns and cities are shaped is not at question. Equally important is the need for influence to travel the other way, where the private sector can filter information that informs policy. This points to the importance of relations between different actors in the urban development market, particularly the public and private sectors. Adams, Dunse and White (2005: 40) suggest that relations between actors can be understood as either "accepting and reinforcing or challenging and transforming" formal codified rules such as planning regulations. By considering decision-making from a property developers' point of view, a more thorough understanding of the processes that determine the key development decisions such as the location and timing of development, can be gained.

A significant amount of research has been devoted to describing the events and understanding the social, cultural and economic processes at play within the development process. A pure economic interpretation foregrounds the uncertainty in the process and the "paucity of knowledge" (Henneberry & Parris, 2013: 242) available to decision-makers. More recent research focuses on the social and cultural processes to provide a more powerful explanation as to how this happens (Guy and Henneberry, 2000; Henneberry and Parris, 2013; Varna, Adams and Docherty, 2020). The research presented here builds on this work to explore how increased certainty in outcomes and more fine-grained local market information are some of the advantages of being deeply embedded in local development market networks.

1.3 Place-based entrepreneurs

Diversity in the developer population has long been recognised in the urban development literature. One of the earliest and much cited classifications of the property developer is contained in McNamara (1983). He explored the idea of different types of developers by investigating the nature of the development process and the developers active in that process. Specifically, he examined how property rights changed throughout the process by focussing on two types of developers, property companies and insurance companies. He also critiqued many simplistic ways of categorising developers either from source of funding or by entity, location or building type. More recently, there is increased support for the view that there are a variety of developer responses following Coiacetto's call for research into diversity in developer behaviour (2001). A distinction has gained traction in the literature and is based on the notion that local and more independent developers can be described as responding to "place-based" factors whereas the national investor developers are not as responsive to local factors and can be understood to be "non-place-based"(Adams, Croudace and Tiesdell, 2012; Adams & Tiesdell, 2010) .

Adams, Croudace and Tiesdell (2012) drew attention to the popular view of property developers. They emphasised how characteristics such as secrecy, greed and over-confidence do not fully explain how property developers behave. Though these characterisations serve to underestimate the objectives of different types of property developers, relying on them weakens policy makers ability to direct policy effectively. They argue that a more thorough understanding of their development objectives would make planners more effective in collaborative negotiations. Responding to these challenges, this research acknowledges diversity in the industry and explores developer relations with the public sector.

The developer's role in linking different resources to create a new building is well known. The ability to direct capital to specific locations, at specific times is a powerful entrepreneurial characteristic frequently associated with private property developers. Though a lot of research focuses on the relations between property developers and the planning sectors, little attention has been paid to how property developers fund their projects and how they change over time. In Ireland, ignoring this network of relations had disastrous consequences for the government as an overreliance on the domestic banking sector created a distinctively Irish variety of the 2008 financial crisis. (Regling and Watson, 2010)

This research argues that developers play an entrepreneurial role within the built environment. The ability to create something new and spot opportunities are recognised as important contributions by entrepreneurs and property developers. This role is acknowledged both in the entrepreneurial literature (Rauch and Frese, 2007; Sadler-Smith, 2015, 2016) and Adams, Croudace and Tiesdell (2012) suggest that this is where a developer's expertise lies. A number of theoretical positions have overlapping cornerstones that support a more rigorous appreciation of the role that emotions and intuition play in entrepreneurial decision-making.

The behavioural economics and psychology literature focuses on human decision-making under uncertainty and finds that mental 'short-cuts' or heuristics are commonly used (Tversky and Kahneman, 1982). Much of the entrepreneurial literature that has drawn on the cognitive aspects of decision-making has found that emotionally charged intuitive processes are often used to make longer-term more strategic decisions (Busenitz, 1999; Sadler-Smith, 2016). Added to these are the recent advances in the area of neuroscience that stress the increased role that emotions play in cognitive processing. These perspectives add significant weight to the notion that experienced decision-makers rely on intuitive judgements. This research draws together these theoretical underpinnings and considers how and when property developers use emotionally charged intuitive decision-making processes.

1.4 A focus on Dublin – the decade to 2020

McDonald and Sheridan note that there were no property developers in Ireland until the 1960s, only excellent builders. They suggest that since then "this activity has been honed to a fine art" (2008:1). Their focus was on the lead up to, and the aftermath of, the Global Financial Crisis (GFC) and the role that property developers played in it in Ireland. It is argued here that there is now a very experienced developer community operating in Ireland that have managed to restart their businesses in the wake of the GFC. Yet despite this, little research has been carried out from the developer's perspective.

Over the decade a lot of research from Ireland has focussed on examining urban development and growth using a neoliberal perspective (O'Callaghan *et al.* 2015; Byrne, 2016b; Mercille and Murphy, 2016). The institutional framework that governs the way property is developed in Ireland underwent significant change during this decade. These changes occurred in planning and finance regimes which make it a very rich seam for

research. Property developers' decisions are considered in the light of these changes specifically exploring how they began developing again following an almost complete halt in development in the early years of the decade.

1.5 Research questions

This research aims to explore how property developers make decisions in a development process that is characterised by uncertainty and imperfect information. The research is based on a case study of the development market in Dublin over the 10 years from 2010 to 2020. The research is subdivided into 3 research questions:

1. To what extent does property developers' embeddedness in local development market networks give them the ability to manage uncertainty, filter information, and inform decisions and strategies?

2. Under what conditions and to what degree is intuition used by property developers as a decision-making heuristic in the property development process?

3. To what degree can an exploration of embeddedness in local development market networks and use of intuition shed light on Adams and Tiesdell's (2010:199) "place-based and non-place-based" entrepreneurs?

This research was carried out using a qualitative case study approach where the research questions provided the basis of the analytical framework.

1.6 A roadmap for the thesis

This thesis is set out in three distinct parts with each part playing a conceptual stepping-stone for the next. The first part is concerned with developing a new conceptual framework that is used in this research. This was drawn from two broad but related theoretical perspectives, the first one focusses on the development process which emphasises the social and cultural forces that drive decisions and behaviour. The second is drawn from the theoretical and empirical studies of property developers and entrepreneurs. These

emphasise the psychological and emotional forces that drive decisions. Both of these are grounded in the ideas of old institutionalism.

Armed with a conceptual framework, the next part is concerned with how the research was carried out and what was uncovered. Lastly, the final section sets out the significance of the findings, the contribution this study makes and how future research in this area might build on this work.

Chapter 2 sets the scene for the complexity, uncertainty, and imperfect information context that characterises the development process. This is the environment that property developers operate in. There is a rich, diverse body of research that informs this. Initially, it is concerned with identifying the traditional practice-led models of the development process. Whilst these are useful for understanding the different dimensions and events in the development process, many of these models have underlying neoclassical assumptions. These assumptions have limited explanatory power as social processes are largely ignored, and individualistic economic rationality is privileged. More modern theoretically informed interpretations of the development process emphasise the social over the pure economic. Chapter 3 adds another theoretical dimension to the research and considers decision-making from the decision-makers perspective. Specifically, it draws on ideas from behavioural economics, psychology, and recent advances in neuroscience. This section puts forward a conceptual framework for considering how decisions are made that depend on a diversity of information spread over a long timeframe. It underscores the relationship between the classic entrepreneur and the property developer. This theoretical overlap is harnessed and decision-making under uncertainty from the point of view of the decision-maker is outlined. Chapter 4 is concerned with discussing the way the research was designed, what challenges had to be overcome and what methods were used.

The results of the research are presented in Chapters 5 – 8. Chapter 5 is concerned with articulating the institutional dimensions of the development market in Dublin over the decade to 2020. This framed property developers' actions and decisions. Moreover, it served to shape potential relationships in development networks. During this time important events occurred that changed the way properties were developed and funded. This chapter provides insights to the way in which change occurred in this complex network of rules. A focus of this chapter is to point to the role, relationships and influence play, in this dynamic environment.

Chapters, 6, 7 and 8 put forward the findings of the research. The findings are discussed in terms of the empirical studies that have provided a springboard for this research. Attention is paid to the formality of the developer-public sector network of rules and relationships. In stark contrast to this, the informality of the developer-private sector relationships. Diversity is considered and developed to incorporate the novice and experienced classification. Chapter 9 concludes the research and considers directions for future research in this area.

PART 1 – TOWARDS A NEW CONCEPTUAL FRAMEWORK

2.1 Introduction

> "Urban development is a complex process which entails the orchestration of finance, labour and experience by many actors within a wider, social, economic and political environment." (Guy & Henneberry, 2002:5)

Social and economic forces are mobilised at specific times to enable a property developer to drive the development process forward from one stage to the next to create a new building. The popular and normative view of how property developers make decisions involves a purely economic assessment of profits, price signals and complex financial modelling. However, this view has been challenged and decision-making in property development is now understood to be more nuanced.

This chapter begins with an overview of what can be termed the 'traditional' models of the development process. Property developers' decisions and resultant behaviour are embedded in this process. These models were developed from practice back in the 1970s and 1980s and provide rich interpretations of how property development occurs. Although created quite some time ago, they provide a framework for the issues and debates around decision-making within the property development process. This chapter outlines how many of the traditional models have neoclassical assumptions at their core. This has two significant outcomes, first, it brings the imperfections in the land and property markets into sharper focus and at the same time limits the analysis as it ignores the wider influences at play.

The second part of the chapter fast forwards to a modern and radical view of how markets are understood. The core idea is that markets are socially constructed and not a separate or abstract idea. Therefore, the actors in the development process are responsible for making and shaping places (Adams & Tiesdell, 2010). This view is linked to the idea that decision-makers operate in complex local institutional frameworks within networks of relationships, habits, formal rules and informal conventions, which evolve to achieve their goals. This chapter focuses on these opposing viewpoints to set up the conceptual foundations of how the external environment influences how property developers make decisions.

2.2 Traditional perspectives of the development process

For most of the 1970s and 1980s in the UK and US, there was an increased focus on modelling the development process. This arose mainly due to the increased policy emphasis on the role of the private sector in generating and managing development

projects. As a result, several seminal reviews of these models occurred at this time (Gore & Nicholson, 1991; Healey, 1991). Table 2.1 below outlines Healey's categorisation of these traditional models of the development process up to the 1990s. They range from descriptive models that outline the various events necessary for a development to be completed, to more sophisticated models that focus on the actions and roles that are played throughout the development process.

There are three significant aspects of these models that make them a good starting point for this study. Firstly, they are generally drawn from practice which grounds them in detailed reality. At the same time this type of research is often so rooted in that reality it is blinded to the other sociological and cultural aspects of the development process. In this way behaviour results from following a set of socially accepted rules where habits reinforce them. Culturally significant meanings are attached to symbols, numbers and calculations so that market transactions can be performed. These ideas are developed further in Section 2.3.2. Traditional models of the development process are differentiated from the theory-driven approaches that characterised research from the 1990s onward. Conversely, where too much focus is put on the theory they can sometimes be devoid of reality.

Secondly, though these models are drawn from practice they have theoretical underpinnings. The first three classifications of models (event-sequence, equilibrium, and agency models) have their theoretical basis to a greater or lesser extent, grounded in neoclassicism. Examining this perspective stresses the inherent uncertainty and complexity in the decision-making process. These factors have a bearing on how decisions are made and are areas with which this research engages. There is a fourth classification (structure models) that is grounded in Marxist approaches which focuses on how capital flows through the built environment. This has less relevance for this study.

Finally, a focus is put on an updated event-sequence model (Adams & Tiesdell, 2013), which provides a good framework to look inside the development process to begin the discussion on the different types of events, distinguish between different types of decisions and gain an understanding of what shapes the decision-making process.

The table on the next page summarises Healey's categorisations of the models of the development process that were developed up to the 1990s.

Table 2. 1 Traditional, practice-led models of the development process

Model Name	Model Description
Event-sequence descriptive models	Envisages development as a sequence of events. With sophisticated models illustrating more complexity and a focus on the timescale in the process. Their benefit is in offering a "vocabulary for describing the process" (Healey, 1991: 224).
Equilibrium / decision-making models	Assumes that demand is the driver of development. As the name suggests, the central concern of these models is balancing of supply and demand of space. Sees development process as being relatively "unproblematic" (Healey, 1991: 222). Price signals are seen as the main impetus for the developer to act.
Agency models	Instead of focusing on the different events in the process or the calculation of total supply and demand of space, these models have the actors in the process as their main focus. For example, the Goodchild & Munton, (1985) model focused on three key roles, the developer, planner and landowner with two key events the identification of land and the initiation of the project. (Healey, 1991: 228). Their strength is in identifying a clustering of agents around events and the need to analyse the roles they play as a way of examining their strategic objectives.
Structure models	These models are based on a different underlying theoretical perspective to the first three model types. Here the focus is on the wider market forces that shape markets and can be said to be derived from the Marxist or urban political economy.

Source: summarised from Healey, 1991

Together these models give us a thorough understanding of the development process. They stress the importance of the interplay between the driving forces, the development events, the roles and actions. As Adams & Tiesdell, (2013: 76) state "An ideal model would successfully combine these various perspectives". The next section examines the complexity of the development process, bringing the events and decisions into sharper focus.

2.2.1 Development process – the events and decisions

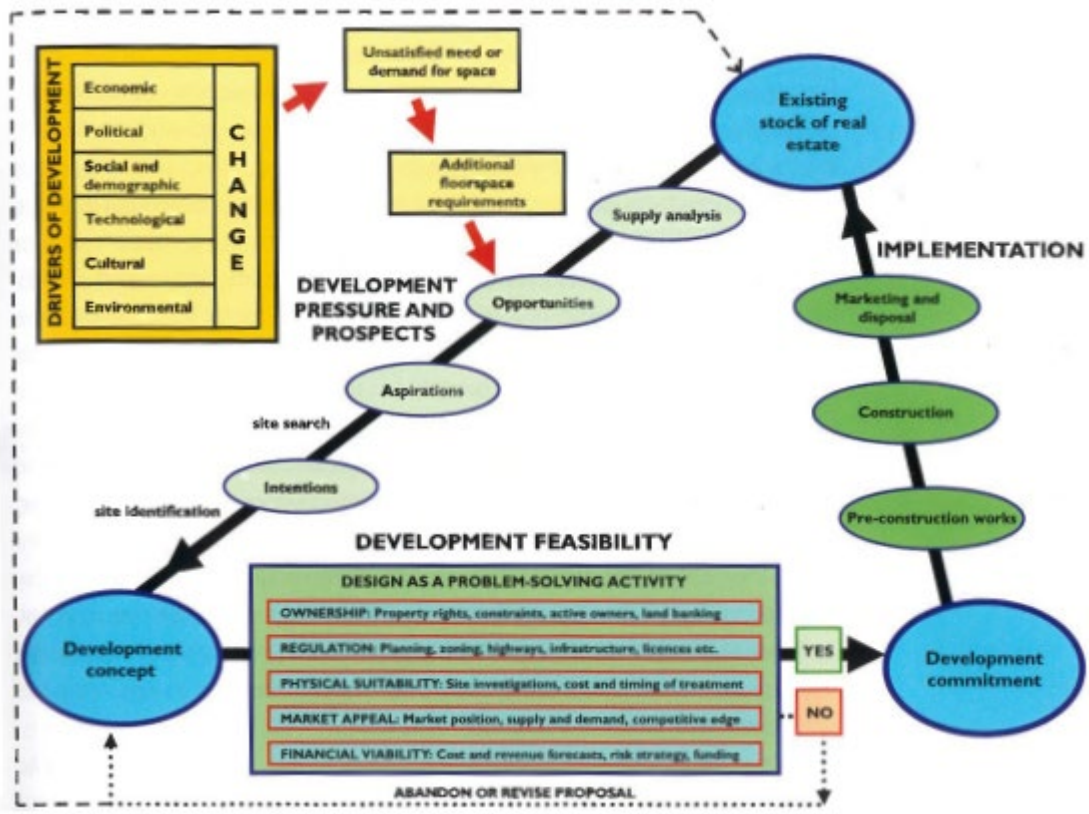
Before a theoretical discussion begins, attention is turned to different types of decisions embedded in the process, the timeframe and the nature of the information available to decision-makers. The descriptive nature of the event-sequence models helps with this and takes us inside the development process. It distinguishes between different decisions and the information and degree of uncertainty inherent in these events. The timescale of the development process has a bearing on the decision-making process.

Early event-sequence models describe the phases that a specific development project may experience from conception to fruition. These models (Cadman and Austin-Crowe, 1978; Ratcliffe, 1978) were also described as linear as the process of development was seen as a series of events that seamlessly occurred one after the other. One of the common criticisms of these models is that they see the process as being unproblematic, whereas the opposite is often the case. (Healey and Barrett, 1990; van der Krabben and Lambooy, 1993; Keogh and D'Arcy, 1999).

Despite these criticisms, some models do successfully unpack the various stages of the process. The most sophisticated of this type of model is seen in the seminal work on the 'Development Pipeline'(Barrett and Underwood, 1978). This model is more refined than others developed at the time (Cadman & Austin-Crowe, 1978; or the linear sequence models cited in Gore & Nicholson, 1991:706-709) for two reasons. First, the cyclical and dynamic nature of the process is reflected in this model as development projects are envisaged as occurring in a spiral, not in a linear sequence of events. Second, the pipeline model suggests that activity is set in motion in this 'pipeline' by changes to the broader economic, political, and demographic factors. These can range from the development of new government funded infrastructure, or the changing residential needs of an increasing aging population. In this way messages and signals are sent from the external environment that are seen to influence actions and decisions. These can be sent through different channels, either through formal rules and procedures or informally through practices that are encouraged or condoned.

Adams & Tiesdell, (2013) simplified and updated this model to reflect more recent thought and practice which is reproduced in Fig. 2-1 on the next page.

Fig 2-1Adams & Tiesdell's event-based model of the development process



Source: Adams & Tiesdell (2013:77)

This model clarifies where the changes in the drivers of development lead to opportunities for developers through an analysis of the supply and demand of space. In addition, they add another dimension to the model by illustrating how development proposals may go through a few iterations before a final development commitment is made. A significant improvement may be seen in the fact that for each development to occur a development concept has to be generated. Adams & Tiesdell's event-based model identifies three distinct types of events within the process. The initial development concept which is seen to be driven by external drivers of development. The second event is then the development commitment, which ends with the development site being purchased which often requires significant financial resources being available. Finally, the construction and disposal of the development.

Table 2. 2 Adams & Tiesdell's event-based model - key events and decisions

Events and decisions	Prospects and pressures
Development concept	Developers receive signals when changes to the external environment: economic, political, social/demographic, technological, cultural and environmental changes occur.
Development commitment	Site search, site feasibility, site purchase ends in development commitment. Acquisition opportunities must be available, willing sellers, options, consent, finance available.
Construction and disposal	Existing market fundamentals for construction and disposal (sale and/ or rent)

Source: Summarised from Adams & Tiesdell, (2013: 77)

As can be seen from Fig 2-1, the event-based model depicts the drivers of development to be changes in the external development context, the so-called *prospects and pressures*. The initial conceptualisation of the finalised development occurs during this phase. How this information is internalised by decision-makers is unclear. This model grounds drivers of the development process in an analysis of supply and demand. However, access to this type of historic data, in a timely fashion, that is specific to sectors and locations is problematic. This is mainly due to the *imperfect*[1] nature of property markets. Added to this is the fact that any conception of demand now must consider that these properties will eventually be sold into a property market that is exposed to a future set of dynamic external conditions. As Adams & Tiesdell, (2013: 77) point out "since the uncertainties experienced internally within the pipeline are matched by constant shifts within and between the factors driving

[1] The property and land markets are often described as being 'imperfect'. This refers to the fact that they exhibit very few if any characteristics of a standard commodified investment market. These can be divided into both physical and economic characteristics. These include the heterogenous nature of land and property, the infrequent and timely nature of land transactions and an intricate series of linked submarkets, poor quality and inconsistent market data. (Adams et al., 2001)

development externally, (shown in the box on the top left hand of the model), actual development outcomes remain inherently unpredictable."

Once the decision is made at the conceptual stage, the model envisages a detailed description of the necessary steps that are required to assess a site as being suitable for a specific type of development. This sequence may occur several times before the next step is taken – the development commitment. At this point, a site is purchased which is one of the biggest development costs and in many ways the most significant decision. The nature of the decision at the 'site feasibility' stage implies a higher degree of specific information about the nature and timing of the proposed development, which enables detailed calculations where estimates of future costs and revenues are required.

The final disposal stage appears to be a less complex environment and is driven by the prevailing market of occupiers and investors. This highlights the complexity of the decision points and how many different factors are at play that cannot be quantitatively represented and calculated.

Many of the early models were criticised for conceptualising development in a "timeless framework" (van der Krabben and Lambooy, 1993:1383). Making decisions such as initiation of development that may not reach completion for several years, is a much *longer-term* prospect and is more strategic. This is distinguished from specific development project type decisions, for example, quantity and quality of construction. The latter will have more information upon which to base any decision however, there is still a considerable amount of future uncertainty built into it. The final decision is characterised by real-time market information and an existing market of buyers, renters and investors. Decisions can therefore be seen to occur within a spectrum of time and uncertainty. Initiation decisions are characterised by a longer timeframe and greater amounts of uncertainty and the final disposal decisions are characterised by a greater degree of certainty and information.

The traditional models of the development process were grounded in two different theoretical perspectives. As Healey, (1991: 221) outlined, the first three categorisations of models (event-sequence, equilibrium and agency) are "different ways of developing the analysis of actors and institutions operating in markets structured by the demand and supply of commodities". Whereas the last categorisation of models (structure) were grounded in Marxist theories that focus on the broader structural effects of the way that

capital flows into and out of each sector of the economy. Influential theorists in this tradition, such as David Harvey (1978), draw attention to the role that finance plays in the production of the built environment and on how this occurs through the fluctuation of different circuits of capital. However, this type of analysis does not delve into the micro details of the events (Healey, 1991) and decisions within the development process and is not considered as part of this research.

However, the analysis of supply and demand is most associated with neoclassical economic theory and decision-making, which is now the focus of discussion.

2.2.2 Acting alone in an abstract market

Economic theories evolve with each approach being challenged in various ways as new ideas emerge, some approaches have more of an impact than others. The classifications of economic thinking that are termed *static* describe an analysis based on a single point in time and therefore "hides the dynamic changes occurring underneath it"(Colander, Holt, & Rosser, 2004: 486). Neoclassicism, which is discussed below in detail, is considered a static or orthodox theory[2].

Although this classification of economic thinking has long been considered of limited use (Colander, 2000; Colander, Holt, and Barkely Rosser, 2004; Davis, 2008), it is commonly associated with economic decision-making and the analysis of property markets. This can be attributed to several facts. Firstly, it is the implied economic grounding for the traditional models discussed here. Secondly, this perspective is used in most academic textbooks on the subject and lastly, most modern professional analysis of the property market has been extensively analysed from this perspective (Adams & Tiesdell, 2013).

Neoclassical economics is focused on explaining how resources are allocated through the market mechanism, at a given point in time. This perspective considers the market as an abstraction that exists outside of social interaction and that decision-makers act rationally. Neoclassical analysis generally focuses on the demand side, as if supply responds readily and therefore does not require analysis or consideration. Assumptions in this classification are based on individuals having full information and farsighted rationality[3]. There is also

[2] Orthodox or static theories differ from the mainstream of economic thinking in that the mainstream is 'open to new approaches as long as they are done with a careful understanding of the strengths of the recent orthodox approach with a modelling methodology acceptable to the mainstream' Colander, Holt, and Barkely Rosser (2004:492).

[3] Farsighted rationality describes an individual's ability to accurately forecast a stream of future payoffs using equations and models that accurately explain market behaviour.

an underlying belief that supply will automatically counterbalance demand and individual action is motivated solely by economic logic without any recourse to the social or emotional factors that may influence behaviour. The point of origin for this type of analysis is the individual and, from there, individual rational behaviour is translated to a society's rationality (Colander, 2000). Where this type of analysis acknowledges a dynamic context, time is built into the assumptions and calculations by estimating expected future revenue streams. Individuals are assumed to understand the full range of possible outcomes and how they may vary over "over the infinite time horizon at the moment of decision" (Colander, Holt, and Barkely Rosser, 2004: 491). These assumptions have been heavily criticised as being unrelated to the actual behaviour and ultimately fail to sufficiently explain human behaviour.

Healey, (1991) identified models of the property development process that are most closely associated with these assumptions as of the equilibrium models. Here the focus is on the supply of and demand for completed developments, which is linked to changes in price signals for decision-makers. According to Healey (1991: 222), these models have their focus on the "stocks and flows" principle where the general health of the property market is determined by an analysis of the vacancy rate. The most significant failings of these models are that decisions and actions ignore the social nature of the process. In driving development forward, a significant amount of negotiation must occur with development agencies, landowners and other actors in the process (Healey and Barrett, 1990; Gore and Nicholson, 1991; Healey, 1991; Guy and Henneberry, 2000). Table 2.3 below details Healey's criticisms of these models. Adams, Dunse and White (2005:21) highlight how subsequent research has dealt with some of the failings regarding the inability of the models to differentiate between the "functional sub-markets of end-user and investor demand".

Table 2. 3 Summary of Healey's (1991) critiques of the equilibrium models

Non-economic interests are ignored, particularly landowners.
The impact of the timescale and the illiquid nature of land markets on uncertainty in the development process. This makes assessing future gain in a project very challenging.
Different appraisal methods (residual and comparable methods) produce variations in outputs which questions them as a method of assessing expected returns in a project.
The complexity and the social aspect of the process are ignored.

Source: Summarised from (Healey, 1991: 222 - 223)

Nonetheless, many of the criticisms remain today even though these models have continued to be used as a basis for analysis. Whilst these criticisms have driven more recent theoretical perspectives of the development process, they are worth highlighting here as they constitute a primary driver of this research.

Mainstream economic analyses of property markets focus on developing models that can analyse aggregate market data. This ignores the diversity in approach of the individual decision-maker. However, this is often made difficult by the fact that information on individual decision-makers, particularly developers, is difficult to obtain (Charney, 2007). There have been some advances in modern property market analyses that can incorporate the fact that property markets supply response now incorporates a slow or partial[4] stock adjustment process (Wheaton, Torto and Evans 1997; Barras, 2005) and disequilibrium rental levels (Hendershott, 1996). This is a significant improvement on previous analyses and provides a more realistic assessment of property markets however, Healey's critiques outlined above remain relevant. Attention is now turned to how property developers develop their expectations of profitability.

2.2.3 Issues with appraisal models

This section is concerned with highlighting the twin tensions of uncertainty in the process and weaknesses in information. It calls in to question the usefulness of traditional appraisal models and metrics for estimating profit in a development project. In the static, neoclassical economic understanding of the development cycle, Antwi and Henneberry, (1995: 232) argue that "profit expectations determine developers' decisions to start new schemes". A more fine-grained appreciation of how profit is estimated sheds light on how this seems unlikely. There are two aspects to the development of profit expectations. The first relates to estimates of developed value and the second relates to the assessment of the required return for the overall project.

Subjectivity and input uncertainty

In determining expectations of developed value within the residual valuation framework, some inputs are more influential and volatile than others. Development costs are significantly less volatile than development values. In addition, costs can be agreed upon with contractors in advance and occur at an earlier stage in the process. It is also common

[4] In these models, investment decisions are based on a forecast of prices which is determined by the interrelation between supply and demand. In real estate, this is complicated by the fact that rents adjust slowly to the rational drivers of rental value. These models can now incorporate a slow adjustment process.

for large scale developers to have their own construction capability. These factors often result in a more precise estimation. By contrast, precision about development value, as highlighted by Healey (1991) and expanded by Adams & Tiesdell, (2013) appears unobtainable, yet this has the greatest impact on estimates of profit.

There is a high degree of subjectivity involved in predicting the value of a building once development is complete. Capitalisation rates and rental levels in the case of commercial buildings, or capital values in the case of individual unit residential properties, are required. Theoretically, these are derived from recent market transactions of similar buildings in similar locations. Determining the degree of comparability between two buildings is a subjective exercise. Local knowledge is therefore essential and economic information (rental levels and capitalisation rates) is highly specific and generally held by local property intermediaries. It is unclear how this crucial information is gained and interpreted by developers. In addition, the role of intermediaries in providing information and appraisals to property developers has not generated much attention. It is unclear whether developers rely on professional valuers or use their internal assessments.

The second aspect of determining profit expectations is the concept of assessing an appropriate level of required return for a given level of risk. Put simply, if profit metrics are used as a basis of decision-making what are the appropriate benchmarks to go forward with a project? The idea of required rates of return is normally associated with conventional investments in the traditional and commoditised investment assets such as equities and bonds, where prices and information are plentiful. Compiling this metric for investment properties, where evidence of past rental levels is available, is considerably easier than for an unfinished building. Crosby, Devaney and Wyatt (2020:4) state that the "Obstacles to conventional approaches for estimating target return rate are a lack of information on the performance of development projects and the heterogeneity that surrounds individual projects". Each developer therefore must rely on their own experience to determine what is an acceptable level of return. Experience is a key factor in understanding what works in each project. In relation to empirical evidence, Crosby, Devaney and Wyatt (2020) suggest that decision-makers do not have a general market benchmark to estimate what return levels can be built into appraisal models. They suggest that required return data is "sparse" (2020:4). They do report some findings that indicate a

preference for profit on cost level of 20%-25% and "on the rare occasion that IRR[5] was used this was either 15% or 20% per annum". These benchmark profitability levels relate to what developers would like to apply as a return for the level of risk they estimate in the development project, not what they actually apply, given their circumstances. Crosby, Devaney and Wyatt (2020) acknowledge that uncertainty and poor information is a feature, but no discussion as to how it is dealt with. This research is concerned with investigating how uncertainty, profit metrics and residual valuation frameworks are used in property development decision-making. The discussion returns to the idea of risk later in this chapter, and again in Chapter 3 and considers how institutional and behavioural economics addresses this.

Poor information

Related to uncertainty is the lack of consistent and reliable data on rental and capital values or capitalisation rates. Adair et al. (2005:216) point to "The paucity of data in the property market is a feature that distinguishes that market from other financial markets." They also state that the "uniqueness" of every property means that each assessment of value needs a high level of data. Most available data tend to focus on the prime market examples as reference points.

Market transaction information such as newly agreed commercial rental levels, prices paid for investment buildings or parcels of development land are generally only available to those party to the transaction and any professional intermediary advising them. As stated above, professional intermediaries favour publishing prime property information. (Adair et al. 2005). As a result of this it is often challenging to gather consistent time-series data for secondary properties, non-standard locations, and new property type. In addition, any information that is available is often out of date and therefore of little use. This can result in subjective adjustments to prices and rental comparable which adds to uncertainty.

Crucially this research questions how developers can use these metrics and models to ascertain profitability given the inherent problems that have been raised here. Antwi and Henneberry (1995) highlighted how developers' reactions to the market environment may differ from those prescribed by the rational expectations. These indicate that they are not all current price takers, mechanically responding to market trends. Rather they adopt

[5] IRR – Internal Rate of Return is a commonly used performance metric that expresses a project's annualised return that includes an assessment of cost and expected future returns. It normally excludes the cost of finance.

several different strategies to formulate the expectations upon which their decisions are based. They found that developers use three strategies for determining profit: current price taking, formal forecasting and habit-persistence. The latter is the predominant strategy. This strategy is generally used where there is strong growth in the market prices and that expectations of prices in the future are based on past experience. This finding is a significant departure in the understanding of how property developers made decisions.

This section began with a discussion of the early traditional models of the development process that were largely based on real-life development studies. Whilst these studies generated interesting insights into the complexity of the process they were limited by the underlying neoclassical assumptions. Mainstream analysis of the property market has developed to incorporate some of the "imperfections" of property markets (Barras, 2005), yet an understanding of individual developer decision-making under this theoretical perspective has limited explanatory power for understanding the actions and decisions taken by developers. Crucially, it fails to account for the majority of the key external influences and processes that are at play when decisions are made by property developers.

The next section considers more modern approaches to the analysis of property developer decisions but under very different assumptions than has been considered thus far. Attention is now focused on the social aspects of property markets. This was highlighted by Healey (1991) and others as being a significant failing of the early traditional models of the development process. In addition, further consideration is given to how numbers and calculations are used within this socio-cultural theoretical perspective.

2.3 Modern perspectives from the development process

From the 1990s onward much of the research seeking to understand the property development process drew its ideas and analysis from institutional economics. Institutionalism is a broad theoretical tradition that has its roots in its opposition to the ideas in the neoclassical end of the mainstream economic spectrum. It emphasises the social rules that govern and structure decisions and behaviour. Even though there are two significant traditions within institutional economics the old and the new, there is a common idea that binds them together – "that institutions matter in shaping economic behaviour and economic performance is a central tenet" (Rutherford, 1995: 443). This discussion turns now to the main ideas in institutionalism to outline the specific areas of this theoretical position that are the foundations of this research.

Although the term *institution* in institutional theory lacks a commonly agreed definition, Hamilton suggests that the term is used to describe "a way of thought or action of some prevalence, which is embedded in the habits of a group or the customs of a people" (Hamilton, 1932:86). An institution represents a collective activity that has its basis in a social group's actions and beliefs and has evolved through habit over time. Institutions explain a broad range of concepts from money and law to the existence of table manners and a system of weights and measures and can be subdivided into those that were specifically designed to those that evolved spontaneously (Hodgson, 2002). Redirecting attention to the social rules that govern behaviour is at odds with the ideas discussed in Section 2.2.2. For example, under this explanation, the *market* is not an abstraction operating separately from the people taking part in it. It is a complex web of social rules, habits and norms that have evolved and is reinforced over time governing exchange.

This research is not concerned with differentiating between the old and the new institutional economics as there are some excellent explanations of this contained in Hodgson, (1989, 1998) where support is given to reviving some of the old institutionalist ideas. Added to this is Rutherford's (1995) suggestion that bridges and links can be made between the two traditions. However, to clarify the approach being taken here, some distinctions are necessary.

Whereas the 'new' institutionalism has its basis in the more narrow individual rationalising behaviour discussed in Section 2.2.2, the 'old' recognises that there are wider socio-political factors also involved. (Rutherford, 1995). Individual preferences are not fixed, but are capable of being honed and "neither individuals nor institutional factors have legitimate explanatory primacy" (Hodgson, 2002: 114). Developers' decisions and choices have been

found to be based on anticipating and trying to influence these institutions, this idea is grounded in the ideas in old institutional economics (Needham et al., 2009).

Other characteristics of institutions include the fact that they can be described as having a stable quality, whereas individuals embedded in that institution can change and are more fleeting over time. The stability provided produces a level of certainty which is reinforced through decisions and choices that are embedded in these habits are routine. This idea does not preclude the fact that institutions can change over time (Rutherford, 1995) in response to changes in economic circumstances and the actions of the actors in the institutional environment. Drawing on North's *Institutions, Institutional Change and Economic Performance* (North, 1990), Rutherford explains that institutional change occurs in the context of the existing institutional structure. This structure can provide incentives through which organisations (social, economic and political) develop. Institutional change occurs as a result of the "choices made by individuals and by entrepreneurs of organisations" (Rutherford, 1995:446).

Together with the idea of the importance of the *institution,* Hodgson suggests that the core ideas of *rules and habits* facilitate analysis and that "habits and institutions provide the link between the specific and the general" (1998:168). Hodgson considers *habit* as being the key component of behaviour. It is the formation, change and development of habits that are central to this research. Habits represent a repetition of an action or thought, influenced by prior activities that are sustained over some time. According to Hodgson, *habits* are a

> "propensity to behave in particular ways in a particular class of situations. Crucially we may have habits that lie unused for a long time. A habit may exist even if it is not manifest in behaviour. Habits are submerged repertories of potential behaviour; they can be triggered by an appropriate stimulus or context" (Hodgson, 2002:117)

Rules can be either formal or informal. Rules are defined as being either "patterns of thought or behaviour which can be adopted consciously or unconsciously by agents" whereas habits have an "unexamined" and "automatic" quality (Hodgson, 1997:664). Unexamined, automatic rule-based behaviour is very closely aligned with the ideas in the old behaviourist tradition which is more closely aligned with the psychological aspects of this research and will be picked up again in Chapter 3. The main ideas in old institutional thinking are contained in the table below and are significant foundations for this study.

Table 2. 4 Hodgson's views on institutionalism

Mathematical and statistical analysis is the servant of, rather than the methodological tools for an institutional understanding of action.
The concept of *habit* connects directly to the existence of institutions. Specific groups of common habits are "embedded in and reinforced by specific social institutions" (Hodgson, 1998: 169). Habit is also seen as the basis for action. This is where psychologists influenced the direction of old institutional thinking, here they connect habit with knowledge and belief.
Micro-analysis of *prices* is seen as a social convention, not arising out of supply and demand. Prices then depend on habits and ideas, routines and processes of valuation.
Macro-process analysis by institutionalists does not assume all individuals are the same and understand complexity in their actions therefore when considering change there is an understanding that imitation, inertia, lock-in[6] and 'cumulative causation[7]' will characterise the processes.

Source: Summarised from Hodgson, 1998

Institutionalism does not have a common theoretical or methodological approach and is often criticised for this. However, institutional analysis encompasses many ideas from other disciplines including politics, sociology and psychology. During the 1990s, several significant theoretically-driven models of the development process were developed that foregrounded the social process and the institutions involved in creating the built environment. Healey's influential Structure Agency Model (1992) stresses the importance of the events and agencies and how the structure of the development process affects this.

In their paper on the future direction for property research, Healey & Barrett (1990) suggested that an approach is required that examines the relationship between the structure, "in terms of what drives the development process and produces distinctive patters in particular periods", and the agency "in terms of the way individual agents develop and pursue their strategies"(1990:90). This draws on Giddens theory of structuration (1984

[6] Lock-in describes a limiting factor to change within a system due to the complexity within that system.
[7] Rutherford discusses this concept which states that each step-in institutional evolution is shaped

cited in Healey & Barrett, 1990:93). Giddens argued that the structure is "reproduced through the rules and resources that individuals draw upon in the production and reproduction of social life". Several criticisms were launched against this approach that centred on the methodological difficulties that arise when considering a universal approach to the definitions of the structure, agencies and institutions. Critics of this approach stressed that weaknesses related to the analytical focus upon social relations and the rejection of mainstream economic theories. (Hooper, 1992; Ball, 1998; Guy and Henneberry, 2000).

Whilst this model stresses the social nature of the process such as the cooperative/ conflicting relationships within the development process, its application in the research community was limited. Significant work that used the ideas developed from the structure agency model includes Adams (1994); van der Krabben & Lambooy (1993), van der Krabben (1995). Although this model is not considered to be sufficiently robust to explain theoretically how the development process works in all situations, its focus on the importance of social relations was carried through in the research that followed.

To date, there is consensus that no single theoretical or methodological approach can fully explain the complexity and nature of the development process (Adams & Tiesdell, 2013; Guy & Henneberry, 2000; van der Krabben & Lambooy, 1993) It is for this reason that a conceptual approach for this research has to be developed.

2.3.1 Institutionalism, uncertainty and risk

This discussion has focussed on the broad theory of institutionalism. However, little has been said about how this addresses uncertainty and risk. This section focuses on these ideas and draws an important distinction between them. Uncertainty acknowledges that the future contains many possibilities; however, it accepts that specifying their probability is impossible. Risk relates to a specific calculation of the likelihood of each possible future outcome. (Hodgson, 1997; Adams, Dunse and White, 2005). This section expands on these ideas by first highlighting areas of uncertainty in the development process. Then a focus is put on the role of urban development policies in assessing future uncertainty and how both strands of institutionalism specifically address these critical issues.

It is clear from the preceding discussion regarding the traditional perspectives of the development process that there are many ways of understanding and describing the development events, actors and outputs. A few key characteristics bind these perspectives

together – that the process is uncertain, complex and has significant shortages of information. Section 2.2.1 drew attention to how uncertainty can be experienced internally within the development pipeline and, at the same time, externally within the drivers of development. For this discussion, it might be helpful to review where uncertainties affect the events, the decisions and the process. Doing this gives a more fine-grained understanding of how uncertainty is assessed and interpreted by decision-makers.

For property developers, uncertainties internally in the pipeline hinge on the availability of land and the vital question of having capital capability (De Magalhães, 1999). The land purchase decision is one of the most important in the development process (Alexander 2001). Once land is purchased, uncertainty regarding planning permission, expectations about development quantum, availability of construction capability and finance of the proposed development come into sharp focus (De Magalhães et al., 2018). During the implementation phase, uncertainty regarding the timing and costs of construction is paramount. The all-important timing of market fundamentals follows this once the development is completed. Externally uncertainties relate to changes to the drivers of development, such as general economic, political, cultural, technological and environmental circumstances that affect the ultimate demand for the properties being developed. (See page 12 Fig 2-1 Adams & Tiesdell's event-based model of the development process). These uncertainties constitute the critical ingredients in any risk assessment.

The question arises, is there a precise relationship between these uncertainties and the idea of risk? Investment decision-makers' expectations and risk are closely related ideas firmly rooted in mainstream economics. Van der Krabben's (1995) view that one of the main functions of the market is to convert the range of uncertainties described above into a quantifiable estimation of risk, which is then reflected in a transaction price. From this perspective, an assessment of risk hinges on the decision-maker's ability to quantify the likelihood of each possible outcome by estimating expected and farsighted future revenue streams and their probability. The challenges to the notion of farsightedness in property development are highlighted in Chapter 2, Section 2.2.2. Risk pricing has been extensively applied to property investments and portfolios of property investments. Hoesli and Macgregor (2000:42) define risk as "a measure of what is expected to happen" to a specific investment or portfolio of investments and explain that this is often proxied by a quantitative analysis of the historical values. Risk calculations are more readily applied to

fully commodified, and securitised markets and are possible with a single or portfolio of standing property investments; it is significantly more challenging for property developments. Whereas it is problematic to forecast rental income streams and capital values for specific property investments, it is almost impossible to forecast with any degree of certainty, the same metrics for an unbuilt property that does not yet have permission or precise dimensions. In this way, uncertainty is the critical concern for property developers.

Development viability modelling was discussed in Section 2.2.3, where the rule of thumb return for risk in development projects is considered to be 15-20% (Crosby, Devaney and Wyatt 2020). In addition, a possible 5% contingency cost may be added to reflect higher than expected construction costs. Over time experienced developers have arrived at this rule of thumb for risk assessment. This is not to suggest that such an assessment is in any way dubious. As Hodgson (1997) notes, the concept of uncertainty relates to a lack of knowledge about the future and provides a context where rule-based behaviour is appropriate. If information from experience remains consistent with an existing situation, rules of thumb that worked in the past can be readily accepted and used again in the present.

Any developer considering the purchase of land without planning permission assesses the level of uncertainty in the proposal and considers that there may be additional costs and increased time. Time is an essential consideration as the longer a development project takes, the higher the costs incurred by a developer. However, as outlined in Section 2.2.3, research suggests that in practice, developers do not use sophisticated risk pricing and instead rely on their experience of previous development projects and rules of thumb built up over time (Byrne, McAllister and Wyatt, 2011, Crosby, Devaney and Wyatt 2020). De Magalhães et al. (2018) investigated how uncertainty about planning permission contributed to weak supply levels in the face of rising demand in England. In this research, interviewees viewed the risk of the time to obtain planning permission as more significant than the risk of not receiving it. This research also found that there was not much evidence of sophisticated risk modelling in the housebuilding industry (De Magalhães et al., 2018). Nonetheless, it is clear that state intervention, whether to do with planning or other urban development policies, has a significant role to play in assessing future uncertainty in development projects. Next, the discussion turns to how new institutionalism addresses this.

New institutionalism – risk and uncertainty

As stated above, new institutional economics is considered an extension of mainstream economics (Adams, Dunse, White, 2005; Ball, 1998). Major strands in this branch of institutionalism, such as transaction cost theory and game theory, have grown considerably since the 1970s. Transaction cost theory provides a framework to examine the role of state intervention in markets where there are significant transaction costs. This branch of institutionalism challenges welfare economics and suggests more clearly defined property rights, thereby reducing uncertainty and risk and minimising transaction costs. (Adams and Tiesdell, 2010)

Transaction cost theory is derived from the work of Coase (1937, 1960) and later developed by Williamson (1999). This theory asserts that there are transaction costs associated with producing and exchanging goods, and to minimise these, markets respond by evolving new organisational and governance structures that enforce property rights; this, in turn, reduces transaction costs. When expanded to consider state-market relations, this theory directs attention to the potential for policies and procedures to reduce transaction costs.

Alexander (2001) applied some of these ideas to land use planning and development control. He contends that the development process would be costlier without land use planning and those development control procedures that indicate potential uses and densities in specific locations. In other words, these reduce risk regarding the quality and nature of the surrounding neighbourhood and increase certainty regarding the development quantum for specific sites. Taken together, these are termed neighbourhood effects, which can directly affect a development's viability.

Focussing on the transaction, Alexander draws attention to how higher transaction costs can arise due to uncertainty, such as opportunistic land purchasing. He considers that opportunism is one of the hazards associated with transactions. In this situation, the purchaser, often with superior knowledge through experience, exploits the information asymmetry regarding a site's development potential. Other hazards include shifting risks to third parties such as banks, who are susceptible to entering into agreements when other parties guarantee the repayments. (Alexander, 2001).

Arguing the case for state intervention, Alexander (2001) highlights increased transaction costs where parties become interdependent through repeated long-term transactions or

where participants in a transaction anticipate political hold-ups or policy lock-in. These are particularly relevant for property development projects where the timing affects the parties' interdependence to the transaction. Therefore, transaction cost theory suggests that inefficiencies such as these are hard-wired into the economic system through moral hazard and uncertainty. Though this thesis does not employ new institutional economics, the advantages of considering risk and uncertainty in terms of transaction costs are evident and "focus attention on how governments can devise and shape institutions with the capacity to eliminate or minimise those frictions and uncertainties that collectively constitute the essence of transaction costs" (Adams, Dunse and White, 2005: 52). Echoing these sentiments, Alexander (2001) suggests that strict and rigid planning regulation has the potential to reduce uncertainty around the assessment of development potential. This can reduce risks by reducing transaction costs for decision-makers.

In summary, risk as a concept is generally examined using mainstream economic analysis. This quantifies the likelihood of a future event occurring, which is then reflected in the price. This type of analysis accepts that state intervention affects pricing, which in turn affects the riskiness of the investment. The mainstream end of institutional economics considers uncertainty in how it manifests itself in increased transaction costs. Alexander (2001) argues that assigning property rights and strictly enforced development control measures result in lower transaction costs and higher efficiencies. Nonetheless, he acknowledges this approach's shortcomings, including resistance to change and the assumption that planning systems are effective. Adams, Dunse and White (2005) acknowledge that the often heavy-handed slow machinery of democratic institutions like local and central government may add to uncertainty by frequently changing policies which in the end can increase uncertainties, inefficiencies and has the effect of increasing transaction costs.

Old Institutionalism – risk and uncertainty

As discussed above, a fundamental principle in old institutionalism considers that the external institutional framework provides a level of certainty in the systems of formal rules or regimes (Jepperson, 1991). Most frequently, regimes relate to planning systems, but they can also relate to financial and taxation systems relating to property investment and development. However, the evolving cultures that shape the conventions or informal rules that govern behaviour are equally important. The systems of regimes and specific cultural norms that evolve based on decision-makers' experiences are known to be carriers of

institutionalism (Adams, Dunse and White, 2005). They, therefore, are significant when considering the degree of certainty in the property development process. In short, institutions help to create increased certainty of what decision-makers can expect.

As this thesis uses institutionalism as a lens to unpack decision-making in property development, an appreciation of the institutional context for development is necessary. Though many of these ideas are discussed in the next section, it is essential to introduce them here to appreciate how this perspective addresses the idea of risk in the development process. An essential idea in this perspective is that markets are socially constructed. This suggests that a developer's ability to negotiate with other actors is significant in managing uncertainty in development projects. Section 2.3.2 that follows expands on these ideas. Risk management strategies have been found to directly influence the all-important site selection decision and how a development team is assembled. Risk assessments are often incorporated in a qualitative assessment of time based on a decision-maker's experience (De Magalhães et al., 2018). This branch of institutionalism focuses on the processes by which policy is arrived at rather than the precise quantification of risk. Healey et al. (1995) put forward the view that policies that emerge out of the broader governance processes may help reduce uncertainty and therefore impact a qualitative assessment of risk in the development process. Adams, Dunse and White (2005) suggest that improved relationships and communication channels could yield improved information to be exchanged between end-user and developer.

Market risks change and can be transformed over time through social processes and the actions and behaviours of development actors. As stated above, the institutional context for land acknowledges the importance of social processes at play in the operation of the development market. David (2012) draws attention to this when she describes how the actions of a developer who could negotiate with landowners and end-users helped transform a previously risky market into one that international investors considered conservative.

In her study of investment clusters in Mexico City, David (2012) draws attention to a new type of developer who acted as a strategic intermediary for international investors. By negotiating with local land owners, understanding the local development process, and creating a new company, the developer became the strategic intermediary who unlocked land for development. Before the specialised land developer existed, financial investors considered investment and development of land and property in Mexico too risky. This

was due to the formal rules around collective land ownership, lengthy legal authorisation and connection to utilities.

To reduce uncertainty and, therefore, risk in the development process, Adams, Dunse and White (2005) cite Adair et al. (1998) and call for confidence-building measures such as minimum infrastructure standards and clarity in policy and procedures, targeted initiatives and simplified planning processes. They highlight how these measures can act to contain risk in development projects. Moreover, recent research reiterated this call for increased clarity in policies (De Magalhães et al., 2018)

Brill (2022) unpacks the private sector as a whole to illustrate the relevance of planning policies on different actors in the development process by opening the discussion to include the risk management strategies of investors and developers. By focussing on an entire city as opposed to a single development site, she highlighted that national policies and property ownership structures (such as real estate investment trusts) outweigh local planning policies in determining the nature of what is developed. Her argument focuses on how property developers are bound by local planning policies that attempt to shape what is built, yet institutional investors are blind to this. By spotlighting the variety and distribution of risks in the development process, she illustrates how institutional investors focus on long-term rental income and tenant profile. This contrasts with developer attitudes to risk management which focuses on securing planning permission and entering into trusting relationships with construction and other built environment professionals (De Magalhães et al., 2018). Brill (2022) opens up the risk spectrum as understood by different actors in the development process to demonstrate precisely who and what is governed through the housing system in London.

This branch of institutionalism acknowledges the importance of the social processes used in developers' risk management strategies (Adams, Dunse, White, 2005). By developing and nurturing relationships, significant risks, such as obtaining planning permission or negotiating construction contracts, are mitigated (De Magalhães et al., 2018). At the same time, the developer's skill as a social networker can alter the nature of risks across different locations (David, 2012). This perspective also foregrounds the variety of actors in the development process and the fact that they do not have the same appetite for different risks in the development process. Brill (2022) highlights how urban governance can be blind to this.

This section has opened up the idea of risk and how institutionalism as a broad theory addresses it. Both new and old institutional economics appreciate the role that existing and future state intervention plays in either increasing or reducing uncertainty and risk surrounding development projects. New institutional economics provides a robust framework for assessing transaction costs in an urban context. Any reduction in transaction costs has the potential to reduce uncertainty. However, this type of analysis suffers from the limitations of property market information imperfections. The branch of institutionalism that recognises the importance of social contexts illustrates how different actors manage and influence institutional context to transform market risks (David, 2012). It seems clear that both strands of institutional economics agree that in order for policies and any form of market intervention to be successful, clarity and timeliness are essential elements of any effective regime. Adams, Dunse and White (2005) suggest that to enable the viability of development and long-term sustainability of development markets, urban development policies need to consider how policies will address risk directly by making the process more transparent and informationally efficient. Decision-making under risk is considered again in the behavioural economics literature in Section 3.3.1 in the next Chapter.

2.3.2 A socio-cultural decision-making conceptual framework

There are two dimensions to how actions occur and property development is now understood. The first is that the property development process is now "widely regarded as an intensely social process" (Varna, Adams and Docherty, 2020:72). Markets evolve from social processes, a significant change from the assumptions underlying the traditional perspectives. Specifically, this means that the idea of the separate abstract market - naturally occurring - is replaced with the idea that markets are created by human interactions and socially driven processes. This is seen as an extension to the old institutional ideas outlined at the beginning of Section 2.3. Stress is placed on the importance of formal and informal social networks and the strength of relationships within these. Though the former has a greater significance to this research, the second aspect of this theoretical approach is linked to the cultural economic perspective (Du Gay and Pryke, 2002; Smith, Munro and Christie, 2006; Henneberry and Roberts, 2008; Wallace, 2008). This approach argues that accepted market practice (for example, prices and values) has a performative effect on the market.

Both of these perspectives combine to form a significantly different view of how markets can be explained and how decisions are made. This research draws on this perspective to understand how developers reduce uncertainty and improve information to assist with decision-making in driving their developments forward. The next section outlines how these perspectives can be used to understand how property developers make decisions in local settings. In an attempt to conceptualise the social-cultural processes to be used in this study attention is now paid to embeddedness, local development markets and the web of formal and informal networks of relationships.

2.3.3 Embedded in local development markets

Property markets in general are considered to have institutional characteristics which are defined by a "network of rules, conventions and relationships which collectively represent the system through which property is used and traded" Keogh & D'Arcy (1999: 2408). The property developer is seen as having a central role within this "richly connected network between the user, investment and development sectors" (Adams, Croudace and Tiesdell, 2012: 2581). The developers role is explored in greater detail Chapter 3, for now attention is turned to examining in more detail the notion of embeddedness and networks. Granovetter's (1985:487) view that "attempts at purposive action are …. embedded in concrete, ongoing systems of social relations" is an important first step in understanding

how developers make development decisions. Crucial to this is the role that relationships play in generating “trust and discouraging malfeasance”. Granovetter's (1985:490). The role of trust is developed further in Section 2.3.4, first the importance of local development market networks is explored.

A crucial characteristic of development networks is how local they are and how contrasting institutional settings can be in different locations. The profoundly local nature of development is an enduring theme in the property development literature (Beauregard, 2005; Charney, 2007; Alfasi and Fabian, 2008; Henneberry and Parris, 2013; Varna, Adams and Docherty, 2020). Coiacetto, (2001: 44) referred to the fact that (at that time) little attention was paid to the “local nature of development”.This has now changed and more recent developer orientated research (Brill, 2018, 2020) puts a focus on local and global networks and the nature of the relationships within the development networks. In a comparative study of property developments in two cities, London and Johannesburg, Brill (2018) focuses on the pre-planning decisions of property developers. Stress is put on the importance of local developer knowledge and ability to navigate local networks on behalf of global players. She acknowledges the ability of developers to “stitch together fragmented institutional settings, often straddling the public-private sector divide” (Brill, 2018: 3). A developer’s ability to navigate and coordinate a local and a global network is an essential part of modern property development. By enabling actions through social networks, developers can channel funding (either local or global) to specific locations and have an essential role in driving the success of development projects.

Some research emphasises how local development networks act as vital information conduits for local information (Beauregard, 2005; Charney, 2007; Henneberry and Parris, 2013), whereas Brill, (2018:3) stresses their role in a wider global network. In local settings, connections enable potential project partners to “filter noise – gossip, information information, misinformation, trade stories and personal opinions – into market signals” (Henneberry & Parris, 2013: 231). In addition, proximity and co-location enable the relationships to occur and market signals are exchanged. Local development networks provide a place where context-specific information is traded and behaviour and habits are communicated and thereby showing how to become an “encultured insider” (Henneberry & Parris, 2013: 30). Though Fainstein, (1994) did not discuss networks she also found that developers and financial institutions rely on personal relations when deciding what developments to back or sites to purchase.

The second important characteristic of networks is that they are differentiated according to their level of formality. In their study of how developers embed themselves in local development networks to mobilise projects, Henneberry & Parris (2013) differentiate between latent (more social) and project (more professional) networks. The ideas in project ecologies draw on Grabher's (2002) study of advertising which puts an emphasis on a deep examination of a project and how this acts in place of the firm as the unit of economic action. Projects exist in two layers, the organisational layer and the social layer. The core team (organisational layer), often a very small group, is the most stable and it makes the decisions and performs and leads the majority of tasks. Developers benefit from the specific knowledge accumulated over successive developments projects. Henneberry & Parris (2013) suggest that degrees of embeddedness can be observed as different social networks "exhibits varying strengths and richness of ties" (2013:233). They build on Grabher's (2002) work and they define the social layer into three different network relationships. They suggest that networks of "communality" are the most embedded and are based on personal relationships and experience. Networks of "sociality" by contrast are more numerous and are dependent on reputation within the network of actors and finally the least embedded network of relationships are described as networks of "connectivity" are often virtual and used for problem solving and learning, (Henneberry & Parris, 2013:234).

Development market networks are characterised as either providing timely specific market information that can be exploited or as a way of influencing public opinion, such as objections to a specific development (Brill, 2020). Alternatively, Leffers & Wekerle, (2020) found that developers in Toronto used their relationships with planners to forge a degree of certainty in the framework. Many studies have highlighted the nature of developer public sector relations and how they differ over time and across institutional settings (Adams, Leishman and Watkins, 2012; Brill, 2020; Leffers and Wekerle, 2020; Todes and Robinson, 2020). What is clear is that, public sector influence is enhanced where mutual interest can be articulated and a greater degree of embeddedness forged (Adams and Tiesdell, 2010).

Whilst landowner and public sector relationships are often highlighted, little is said about the importance of relationships with the banking and wider development funding sector and how this affects decision-making. This research engages with these ideas.

The power of development market networks lies in social relationships that act as a conduit for the transfer of many different types of information from consumer to developer to developer, developer to the consumer, agent to the developer. The personal and professional relationships between different actors act as the enabling pathways in the networks. This study is concerned with examining how networks of relationships are used to reduce uncertainty in the development process and seek to understand to what extent long term strategies are informed by them. A deeper understanding of the nature of the relationships is required.

2.3.4 Relationships, trust and uncertainty

A strong theme in this socially driven theoretical perspective points to the importance of understanding developer relations (Adams, Leishman and Watkins, 2012; Brill, 2020) and how strategies are developed that both nurture and depends upon them. There is a link between the notion of embeddedness, a more fine-grained appreciation of relationships and the degree of trust that are woven into them. Charney, (2007: 1188) considers that "developing and maintaining relations with local agents such as municipal bureaucracy, planners, tenants, bankers, and local real estate is no less important for development than having all the economic fundamentals in place". Many studies emphasise the importance of relationships between the public and private sectors (Adams & Tiesdell, 2010; Brill, 2020; Charney, 2007; Coiacetto, 2007; Henneberry & Parris, 2013; Leffers & Wekerle, 2020). Within local development networks, the developer is the central organising force. At different stages, throughout the development process, different actors come into sharper focus.

Developer relations within these networks is dependent upon how they are perceived. Where the process is characterised by uncertainty combined with a time dimension, trust becomes an essential component of network relationships. Adams, Leishman and Watkins (2012) examined the importance of trust and reputation in the operation of housebuilder networks. They found that trust was an essential component for the effective functioning of residential builder networks and that reputation was the mechanism to generate and reinforce trust. They suggest that trust in private sector relationships is built on, vulnerability of one party, potential for collaboration, and mutual self-interest. (Adams, Leishman and Watkins, 2012).

Adams, Leishman and Watkins (2012) also drew attention to the cultural difference between the development and public sector. To illustrate this, they pointed to the "well-

rehearsed complaints from housebuilders about the regulation of development through the planning system, emphasising planning delay, perceived inconsistent decision-making and political interference." (2012: 716). They found that there was an important distinction between public and private sector relationships which centred on the fact that planners and developers are not seen to share the same interests. This put planners at the most "distant point from housebuilder networks" (2012: 715).

They also acknowledge a distinction between the trust developed between individuals, and the trust in an actor's "institutional dimension" which, they suggest, is of equal importance (Adams, Leishman and Watkins, 2012). On this point they cite Höppner, (2009) who examined the extent that participants trust in the process of planning committees. She found that participants trust committees if they find them to act in "a reciprocal, reliable, respectful and equal manner" (Höppner, 2009:1052). Added to this she also found that trust in planning committees is directly related to the extent to which they can be confident in their outcomes.

Henneberry and Parris, (2013) explore developer networks using a theoretical framework (Grabher, 2002) that recognises how projects and project actors are connected through personal relations within their corporate networks. They use the concept of "swift trust" and how this has emerged to enable the organisation of complex tasks. This is a type of trust that is based on the notion of being able to trust one another due to the particular role that the person played. Swift trust is enabled because culturally we trust the role the individual plays more than the quality of the personal relationship with that person. For example, we trust that architects design buildings and make decisions to collaborate with them on that basis. This is differentiated from a deep personal trust that is built up over time. They highlight the importance of swift trust for mobilising latent project teams to carry out a particular development project. Trust and its impact on relationships and networks is an area of the research that this study engages with.

A significant area of interest for this research is understanding how developers nurture and use different types of relationships to establish strategies and how information is garnered to inform specific short- and long-term decisions and strategies. Adams, Leishman and Watkins (2012) draw attention to the role of trust and reputation in social relations. Brill, (2020) suggests that public sector relationships are significant. She points to how developers develop and leverage close relationships with public sector to exert pressure on existing policies and practices but also how they might shape new policies. Adams,

Leishman and Watkins, (2012) draw attention instead to the importance of wide rather than deep relationships with landowners to source land. Relationships with private sector actors and the community are often included in this type of analysis.

Formal, informal, local and increasingly global networks deliver information and increase certainty in an extremely complex uncertain process. Developer decision-making, therefore, is linked with their ability to mobilise these networks at given points in time. Professional intermediaries are increasingly recognised for their ability to influence the way development actors think and act. The next section directs attention to the cultural economic perspective to illustrate the power of calculative practices in negotiations and how this might impact different aspects of the local development market network.

2.3.5 Culture, influence and market performance

The role of professional intermediaries in the development market has been increasingly recognised as highly important to understand how markets operate. Through the use of symbols, calculations and the importance attached to them, they help to perform market operations (Adams & Tiesdell, 2010). In the real estate area, professional intermediaries such as estate agents and valuation surveyors have been known to play a role in this. Moreover, cultural significance is often attached to the calculative practices such as the standard appraisal techniques and profit metrics that are often used to demonstrate rationality. Smith, Munro and Christie (2006) focus on housing transactions and the role that intermediaries play in shaping that process. They describe how property valuation surveyors shape housing transactions through the application of the property valuation. They emphasise how surveyors' behaviour, in acting as intermediaries between buyer and seller, has a performative effect on the transaction. They link this to how valuations are communicated and calculated. By creating the valuation of the subject property, and reporting it, this professionally produced number acts as an anchor in price negotiations. In addition, the objectification of the market and the emphasis on the scientific approach to the appraisal calculation, implies that the value is an independent market-driven rationally deduced number. Whereas, the property's created valuation is a socially constructed starting point for price negotiations. It is worth noting that some studies that use the cultural economic perspective emphasise an emotional quality to markets (Christie et al., 2008; Wallace, 2008). This socially orientated perspective recognises the emotional content of market transactions and suggests that attention should be paid to the "`sociality of emotions': to how a wide range of feelings circulate and generate effects" (Christie et

al., 2008: 2297). Though the link between emotions and decision-making is made here, the central point is developed further in Chapter 3. In this section the psychological aspects of emotions and intuitive decision-making are woven into this research.

In the commercial property market, evidence of this was provided by Henneberry & Roberts, (2008) in their examination of how portfolio benchmarking[8] has an impact on how fund managers select the location of their property investments. They examined the impact of investor decision-making on regional property development in the UK. They found that the use of 'benchmarking' had a profound effect on the property market and on how fund managers choose investment properties, making it constitutive of the property market. They suggest that through this process of benchmarking fund managers were continually choosing properties in London and the South East of England as opposed to regional markets.

Weber's (2016) seminal ethnographic study on the performative nature of property market cycles builds on these ideas. In her study, she asserts that the behaviour and interrelationships of, and between, property market actors partially account for the repeated and cyclical mismatch between supply and demand of property. Her findings illustrate three ways that a network of actors (planners, valuers and investors) help to perform market cycles. First, she suggests that the notion of the market cycle is a cultural device that helps to standardise meaning in a complex and uncertain process. Secondly, in order for the notion of a cycle to persist, it must be performed collectively, and in unison by networks of actors that are incentivied to immitate each other's behaviour. Thirdly, and perhaps most importantly for this study, she suggests that the idea of the market cycle articulates how the future will unfold and acts as a signal for speculative behaviour.

According to Weber (2016), property professionals frequently reproduce market data graphically in cyclical terms, so that it is made visible in the same way that the stock markets are. By directing attention at how similar property market metrics are over different time periods, the dynamism and dependabiity of the property market are revealed. In short, cycle thinking that is deeply embedded in property market networks, influences and ultimately helps to ensure that the cycle continues to turn.

[8] Portfolio benchmarking is a performance measurement tool. It is often an industry-agreed appropriate index, at this time the standard property portfolio benchmarking tool was the IPD (since bought over by MSCI). Benchmarking against an 'industry agreed' standard is seen as a way of evaluating portfolio performance.

Property development valuation models can be interpreted as classic calculative practices that help to 'translate diverse and complex processes into a single financial figure' (Miller, 2001). Thereby helping to reduce the uncertainty and increase the likelihood of the valuation processes serving to make the actual development 'economically visible and measurable' as described by Miller, (2001). This is translated into the real estate arena by Crosby and Henneberry (2017: 187) "agents are continually involved in the processes of the qualification and quantification of goods: the definition and 'fixing' that allows goods to be subject to calculation and valuation". Whilst Miller was describing management accounting as the principal *calculative practice,* the concept is easily transferable to property development as the practices involved in calculating residual valuation (costs and values) are closely aligned to management accounting techniques. Whereas Crosby and Henneberry (2017) refer in this context to the comparison method of valuation, McAllister et al., (2013:519) refer to development viability modelling in planning policy as the "archetypical example of the application of calculative practices to demonstrate governmental rationality". The existence of a valuation (for either profit or land value) helps to make the concept of development operational and increases the capacity of the agents involved and the connections among them.

As organiser and orchestrator of a development, the developer may have to use persuasion and argument building to draw together the vital elements for the project to take place. Large property development projects may require several different equity and debt funding partners some of whom may be familiar with the real estate market and others who will not. Most investors however are familiar with the standard profitability measures such as IRR[9]. To advance such deals, it is very powerful to have development cashflow viability models with the familiar IRR calculations completed. Carruthers and Espeland highlight the rhetorical power of business accounts as opposed to their, often-assumed, technical power, and suggest that they are "more important as justifications for decisions already made than as tools to make rational decisions" (1991:61). Valuations, cashflows, IRRs and other profitability measures are based on finance and accounting principles and can be used to persuade potential financiers or equity partners of the viability of the development rather than to see if the deal is potentially profitable.

[9] Internal Rate of Return ordinarily understood as the profitability of a scheme expressed as an annual percentage excluding the cost of finance.

The majority of development projects require funding outside of the developer's own resources. To advance the project, finance partners are required and it is assumed that valuation models complete with cashflows and profitability metrics are the basis for the negotiations with them. Despite the uncertainty in the inputs that was discussed in Section 2.2.3, these models are powerful as they appear to offer "objectivity and neutrality" (Miller, 2000:388). The act of producing either a land valuation or profitability model provides focus and legitimacy to discussions and negotiations. In addition to reducing the subjectivity of the inputs, the production of either a valuation or a more detailed appraisal can have the effect of reducing the existence of uncertainty on these inputs. Carruthers and Espeland, (1991:57) refer to this as "uncertainty absorption". This is because they produce a precise measurement of profitability, which when written down is very convincing and without familiarity with the development appraisal process, the inputs are difficult to question. The highly specialised methodologies and technically adjusted inputs produce symbolically strong single numbers such as the IRR or NPV (net present value) and mean that only certain insiders can make inferences from them. Carruthers and Espeland go further and state that "Decisions are made based on highly edited information in which inferences about information – rather than direct evidence – are conveyed" (1991: 57)

To illustrate this point, we might imagine the following scenario: a developer is interested in getting a project underway but does not have the necessary financing in place to go forward. To entice potential funders to invest in a specific development opportunity, negotiation takes place. The funding request is based largely on the developer's financial and development credentials but also a site-specific development appraisal. Such appraisals can be carried out in-house in development companies or by professional intermediaries. Appraisals detail expected revenues (capital values) and costs (building and development some of which are fixed others that are expected) and present them as a set of cashflows. By reducing the development of commercial buildings to cashflows and a simplified expression of return, the decision process is enabled.

Whilst some equity partners and banking executives may not be familiar with development appraisals, they are familiar with common investment analysis metrics. If a project IRR of 10% is produced from a set of cash flows this could be interpreted as a healthy investment when compared with other investments. However, it is unclear from the IRR how the

expected sales value of the building is arrived at[10], whether the rental income has expected growth built into it or if the costs are subject to inflation and crucially if the expected development period is a close approximation of what may happen. The limitations of the real estate data required for either an IRR or NPV mean that they can also be open to the subjective interpretation of the market by those calculating it, or open to manipulation to produce the required result.

Obtaining the crucial 'exit yield' is 'far from being an opinion-free, technical exercise'. (Guy et al., 2002) From a neoclassical economic perspective, a development appraisal provides a quantitative assessment of profitability and where the calculation is positive the development should go ahead. However, an institutionally grounded explanation suggests that numbers and calculations provide objectivity in an informationally inefficient market. It is this objectivity that is privileged from the neoclassical perspective. An area that this research engages with is whether these calculations are carried out by professional firms or in-house by developers themselves. This may help to reduce uncertainty and have powerful persuasive qualities in highly influential negotiations.

2.3.6 Place-based – non-place-based behaviour

Many studies grounded in the old institutional perspective examine the strategies and behaviours of different types of developers (Coiacetto, 2001; Guy et al., 2002) These studies conclude that a developer's decision to operate in one place or another can often be determined by their level of knowledge and relationships with other agents in that area otherwise termed 'institutional thickness' (Adams, Dunse and White, 2005). This idea was put forward by Guy et al., (2002) give a good account of this in their description of the Manchester and Liverpool based developer Urban Splash. They call this type of developer an "independent" or "maverick" as they do not develop in spaces that institutional investors would be typically interested in (2002: 1189). These types of developers are locally embedded, where they join community associations to gain funding.

A distinction, therefore, has been highlighted between these locally-based developers and national institutional types of developers (Coiacetto, 2000, Guy et al. 2002, Adams, Croudace and Tiesdell, 2012). Drawing on this work Adams & Tiesdell, (2010) suggest that future research might focus on this distinction between what they call "place-based"

[10] The expected value of a commercial building is arrived at by estimating expected rental income and dividing this by a comparable investment yield. The investment yield is calculated from a recently let, recently sold building that bears a close relationship to the building that is being planned. This investment yield is also called the capitalisation rate and is also called an exit yield where cashflow calculations are used.

and “non-place-based” entrepreneurs. The conceptual framework being developed here takes up their suggestion that the dichotomy can be examined in terms of those developers that respond to local factors, are independent and seek out development potential. Non-place-based tend to be “externally based institutional investors”. (2010:199).

2.4 Conclusion

This chapter has opened up the different events within the development process as the starting point for developing a theoretical basis for decision-making. It steps back in time to revisit the traditional models and neoclassical economic theories of decision-making that privilege individual rational behaviour and perfect information. Nonetheless, their use has persisted over time. A deeper analysis is put forward here to emphasise the complexity, uncertainty and poor quality of information that is available to decision-makers.

This research is based on a more modern theoretical perspective that stresses the importance of social and cultural processes that are seen to result in a diversity of decision outcomes and behaviour. Decision-makers are socially embedded in a time and place-specific institutional framework. Influential messages are sent through changes to rules and conventions, messages are sent by actors these are designed to hone individual decisions. Local development markets are made up of rich networks of relationships where social conventions and rules are developed. Experience is essential in building up the habits that are required to successfully move through the events in the development process to drive the project forward. These ideas are all grounded in the old institutional theoretical perspective which is used in this research.

The next chapter focuses attention on the characteristics of the property developer. It considers how varied their actions can be the extent to which psychological processes play a role in decision-making. Ideas that can be linked back to old institutionalism are developed and two related areas of research within this study: habit and instinct and behavioural economics are examined.

3.1. Introduction

> "Perhaps more than in any other industry the property development entrepreneur resembles the classic entrepreneur of economic history. He or she is bold, aggressive, focused and predisposed to rely on judgement rather than analysis, to bring about changes to the built environment through the generation of profit from real estate development." (Barkham, 2002:53)

This characterisation of the property developer as a classic entrepreneur is a crucial one for this research. In the same way that Barkham has linked decision-making style to personal characteristics associated with property developers and entrepreneurs, this research is built on bridging these two concepts. This view of developers having common entrepreneurial type characteristics may explain why developers were traditionally viewed as an "undifferentiated homogenous group" (Coiacetto, 2000a: 354). It would be inaccurate to suggest that all developers have the same characteristics however, some common character traits have been identified that resonate with the classic interpretation of an entrepreneur. This does not imply that there is a commonality of behaviours. It is now increasingly clear that developer behaviour is diverse. (Brill, 2018, 2020; Coiacetto, 2001; Guy et al. 2002; Rosen, 2017). This point has been acknowledged in the socio-cultural conceptual framework developed in Chapter 2, Section 2.3.2.

Decision-making cuts across many theoretical perspectives, and so far, economics and sociology have been considered. This chapter now turns to the psychological aspects of behaviour, information gathering and information processing. This theoretical perspective is the foundation of behavioural economics and resulted from advances in psychology upon which many of its underlying assumptions lie. Increasingly, boundaries between different theoretical traditions are becoming less distinct. As advances in one area often serve to forward understanding in another, the interdisciplinary nature of research is becoming more important. The recent proliferation in research in behavioural economics is a good example of this. Classic and more cutting-edge ideas in this tradition and more specifically, the interdisciplinary fields of neuroscience and psychology are used develop the conceptual framework further for this research. The contrasting cognitive processes of analytical and more intuitive or emotional thinking are used to develop this.

In the first part of this chapter, the image of the property developer as an entrepreneur is drawn. Next, a focus is put on positioning this research in the broader area of behavioural economics and psychology. Finally, a focus is put on ways of identifying and examining intuitive decision-making.

3.2. Property developers

If asked, most people would have a sense of the role and character of a property developer. This is mainly because property developers have had such prominence in the built environment and the media since the 1980s. Adams & Tiesdell (2013: 95) highlight the distinction between roles and actors and clarify that actors can play numerous roles, for example, a local authority can be both developer and regulator. Roles on the other hand can be understood as a set of behaviours that are connected and can be embodied by different actors or agents. Roles describe the functions and actions or describe events that are carried out so that the objective is achieved. This section sets out a clear understanding of the role of the developer and illustrates that the associated personality characteristics are common to the classic entrepreneur. These are important conceptual foundations for this research.

3.2.1 Organiser and entrepreneur

The classic description of the role of the developer in the literature is as a "key co-ordinator" (Healey, 1991: 224). Private-sector development occurs because it is organised and carried out by the developer. Different resources are mobilised at different times to drive a project forward from one event to the next. To achieve their aim, property developers have to organise land, mobilise labour and secure capital. This is a crucial role in the production of the built environment.

The ability to organise a development from conception to eventual sale is an important one, no matter the size of the development. Creativity and drive are seen as important personality characteristics that enable a developer to drive the project through each development event. Therefore, property developers are perceived as being creative and not just organisers or planners of buildings. They are identified as "impresarios" (Adams, Croudace and Tiesdell, 2012: 2582) or "orchestrators" (Gore & Nicholson, 1991:718) of the built environment. It is thought that developers continually envisage what would work best on a site, whether it is an office, retail, residential or industrial at a particular location. Adams & Tiesdell, (2013:145) description of a developer's role and expertise "lies in

spotting development opportunities (location), knowing the target market (product) and resolving constraints to make things happen when required (timing)."

Building on the idea that the development process is a sequence of events (Section 2.2.1 in Chapter 2), developers have an important role acting as a link between different actors in the development process (occupier, investor and regulator). In the same way, they are seen as a nexus in the chain of events that constitute the development process. They mediate between capital and location, state and occupier, occupier and investor. They have the power to direct capital at certain locations and at certain times, mobilise different ways of working or living and bring into effect the aspirations of regulators and government.

The classic role of an entrepreneur has been described as exploiting opportunities and working under uncertainty, (Rauch and Frese, 2007). Shane and Venkataraman, (2000) suggests defining the field of entrepreneurship as opposed to a narrow definition that may not include the variation in opportunities. They define entrepreneurship as "the study of sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluate, and exploit them" (Shane and Venkataraman, 2000:218)

Opportunity spotting, creativity, operationalising and co-ordinating are all skills often associated with the classic entrepreneur. These characteristics are picked up in Adams, Croudace and Tiesdell's, (2012: 2583) description of developers as "entrepreneurial movers and shakers of urban change". This suggests that, it is the decisions and actions of developers with entrepreneurial flair who drive change in urban settings. These ideas link to on Guy et al.,'s (2002) account of the independent developers, discussed in Section 2.3.6 who they consider have specific creative and innovating characteristics capable of driving change. Though Guy et al.,'s (2002) account highlights the fact that local independent developers are more likely to drive urban regeneration projects they also suggest that this type of developer is more likely to respond to local cultural changes.

3.2.2 Characteristics – control, innovation and drive

Many of the commendable attributes discussed above mask the popular and more traditional view of a property developer as a "self-made entrepreneur with limited education whose business is characterised by financial duplicity, disdain for authority and contempt for tenants" (Adams & Tiesdell, 2013: 141). This characterisation resonates and may result from the observed behaviour of some developers. Developers, like

entrepreneurs, are often seen as successful if they have "a wide variety of skills whereas the personality traits that are required to carry out these roles are, innovation, proactive personality, stress tolerance, need for autonomy, internal locus of control" (Rauch & Frese, 2007: 358). Shepherd et al., (2015) reviewed entrepreneurial decision-making literature and summarised the key characteristics of the entrepreneurial decision-maker found in the literature. These suggested that, when compared with non-entrepreneurs, entrepreneurs are perceived to have higher levels of individualism, are more open to change, have a creative intuitive thinking style and assess situations in terms of opportunities.

So far, an understanding of the personality characteristics associated with entrepreneurs and developers has been established. The next section takes the discussion further into the realm of the internal or psychological aspects of human decision-making. The neoclassical understanding of how decisions are made comes under scrutiny once more, and some interesting developments are highlighted that serve to drive this research further.

3.3 A behavioural economics perspective

Psychology is the systematic exploration of human judgement and behaviour. Behavioural economics has grown out of bringing this way of thinking into analysing how economic decisions are made in practice. In this respect, it contrasts strongly with the neoclassical economic ideas of decision-making (rational choice and expected utility) that were discussed in Section 2.2.2, Chapter 2. In this section, attention is now paid to the advances in behavioural economics research, to highlight how, it is now commonly accepted that people generally use heuristics or mental shortcuts to make decisions.

So far in this thesis, rationality has been discussed in terms of its purely reductive economic meaning. Simon contrasts this view with that of what he called the "other social sciences" (Simon, 1986: 209). According to Simon, in their treatment of rationality, the other social sciences approach rationality by:

- empirically determining the nature and origins of value and their changes with time and experience,
- focussing on uncovering the processes, (individual and social) whereby selected aspects of reality are chosen by decision-makers as being reasons for actions,
- seeking to understand what strategies boundedly-rational humans use to cope with complex realities and

- explaining why non-rational (also called the more human) processes (such as motivations and emotions) influence decisions and actions.

Simon, (1986: 210)

This approach to examining behaviour favours examining decision-making from a decision-maker's point of view through empirical research. As part of this, limitations to human cognition and complexity in the environment are key assumptions. The research approach and design in this study is consistent with these ideas.

Simon understood that humans interpret and understand the real world in different ways, which is in direct opposition to a neoclassical understanding of how decisions are made which was discussed in Chapter 2, Section 2.2.2. Simon's focus was on *procedural rationality* which refers to processes that describe how the decision-maker arrived at a decision. This rationality accepts the fact that there are limits to cognition[11] and limits to information. Procedural rationality stresses the reasoning processes and the "actor's subjective representation of the decision problem" (Simon, 1986: 211). This differs from *substantive rationality* which examines the outcomes that are produced, which is the focus of neoclassical economic analysis. The focus of the research in this thesis is not on the more commonly understood idea within behavioural economics – substantive rationality. It is concerned with procedural rationality because the focus of this research is the real-life decision-making processes that developers use to progress their projects. It is not concerned with comparing the economic rationality of decisions. This is an important and definitional distinction for this research.

Sent (2004) draws attention to a separation of ideas within the behavioural economics perspective that hinges on the distinction between procedural and substantive rationality. She distinguishes how 'old' differs from 'new' behavioural economics in these assumptions. New behavioural economics starts from the assumption that decisions are made on an economically rational basis and explores deviations from that whereas old behavioural economics stresses limits to human cognition, acknowledges limits to information and how decision-making processes are uncovered by inductively studying real-world decisions.

[11] Cognition in psychology refers to the way in which the brain acquires information and processes it. Specifically it describes the mental actions and processes involved in receiving processing and storing information, through thought, experience and the senses.(Greenwood, 1999)

In Chapter 2, Section 2.3 a distinction was made between the old and new institutional economics. Hodgson, (1998) draws on the defining ideas in old institutionalism and draws parallels to ideas and concepts in the old behaviouralist tradition. The bridge between the two traditions centre on this. Hodgson does find commonality in that both traditions are seeking to uncover what occurs in practice, rather than what is posited in theory alone.

Whereas this study is concerned with *procedural rationality* and the psychological processes of decision-making, the more recent growth in new behavioural economics studies focus on the outcomes of decisions and specifically how humans deviate from rationality by identifying biases. This latter emphasis on substantive rationality and new behavioural economics has been a catalyst for a wave of research from real estate. An overview of this research is contained in the following section.

3.3.1 The heuristics and bias research

New behavioural economics can be traced to the work of Amos Tversky & Daniel Kahneman. Significant contributions include work on Prospect Theory (Kahneman & Tversky, 1979), which critiques expected utility theory discussed in Chapter 2. Prospect Theory is considered to be the behavioural economists' model for examining decision-making under risk [12]. Chapter 2 addresses the idea of, risk and uncertainty, and how the broader theory of institutionalism addresses this. Prospect theory is known to put forward a series of "simple and compelling demonstrations that, in laboratory settings, people systematically violate the predictions of expected utility theory" (Barberis, 2012:2).

Two ideas in Prospect Theory are briefly discussed to provide a basis for understanding the more important work on heuristics and biases that has more relevance to the conceptual framework for this research. First, this theory foregrounds the idea that decision processes are multi-phased. An important early editing of choices takes place, this idea is important for real estate decision-making due to the quality of information that is available when considering different options. The nature and quality of information available to property developers was discussed in Chapter 2, where quality, comparability and illiquidity were highlighted as being key characteristics. When considering properties that are not prime or

[12] Section 2.3.1 discussed the difference between risk and uncertainty. It is helpful to reiterate the distinction here. Risk is understood to be something that can be calculated or measured. This is distinct from uncertainty which is assumed to be something that cannot be calculated. Knight, (1921:20) outlined that "a measurable uncertainty, or "risk" proper, as we shall use the term, is so far different from an unmeasurable one that it is not in effect an uncertainty at all". Later on, he asserts that ""uncertainty" refers to cases of the non-quantitative type. It is this "true" uncertainty, and not risk, as has been argued, which forms the basis of a valid theory of profit and accounts for the divergence between actual and theoretical competition".

indeed require regeneration, information is often incomplete. Therefore, it is important that decision-makers have the ability to filter options that are subjectively comparable and make inferences across locations and sectors, to fill in the information gaps.

Second, gains and losses are evaluated compared to a subjective reference point. For example, as the decision to sell is evaluated in terms of a gain/loss against a specific reference point, the theory states that the "reference point usually corresponds to the current asset position" which can affect the decision to sell. (Kahneman & Tversky 1979:274). The reference point taken is subjectively defined rather than being an assessment of absolute losses in wealth. Thaler (1980, 1985) developed this idea and named it as a form of mental accounting which is defined as a cognitive process that compartmentalises individual asset transactions or projects and does not consider them in terms of the overall value of the portfolio. Prospect Theory provided a rich source of ideas that led to the famous work *Judgement under uncertainty: Heuristics and Biases* (Tversky and Kahneman, 1982). The use of heuristics in decision-making is a corner stone of the conceptual framework used in this research.

3.3.2 Heuristics in decision-making – concepts and evidence

Heuristics are also known as "mental short-cuts" or "rules of thumb" that are used by decision-makers because they were successful in the past. There is a conceptual link here between the development of mental short-cuts and habit and experience discussed in Chapter 2 where habit is seen as a basis for action. The experienced decision-maker filters information and different opportunities using heuristics that allow an analysis of complex and imperfect information. Early contributions to the notion of psychological aspects of decision-making that defined satisficing[13] and bounded rationality, provided a catalyst for research in the decision-making in property development. The idea of bounded rationality was a device used by Herbert Simon to highlight a whole range of limitations (cognitive, computational and knowledge) of individuals from behaving in a way proscribed by neoclassical economics. He suggested that because of these boundaries, individuals use heuristics when gathering information and deciding between options.(Klaes and Sent, 2005)

[13] Satisficing refers to a heuristic device highlighted by Simon, (1956, 1979) that describes how people make decisions in real life. In response to the neoclassical idea of optimisation, Simon stated that even if people could choose optimally they may not have the sense or the wit to do so and instead they choose what is satisfactory. In neoclassical terms, this is a sub-optimal choice and in Simon's view, it reflects real-life decision-making.

Mohamed (2006) drew attention to research in the 1970s and 1980s that examined satisficing and bounded rationality and how this affected decision-making in property development. In these limited cases, satisficing was identified as a decision-making heuristic. This research assumed that developers limited their decision-making criteria to a profitability benchmark. From this narrow assumption, Baerwald, (1981) and Hepner, (1983) posited that this was due to bounded rationality (cited in Mohamed, 2006). Mohamed, dismissed this explanation for satisficing "because it was seen as the only plausible explanation for this phenomenon" (2006: 29). Mohamed, (2006) did not question the fact that property developers use profitability as a decision short-cut only that bounded rationality was the implausible explanation for it. Mohamad's research is consistent with the assumptions of new behavioural economics in that developers' start from the narrow decision rule of profitability as the sole determinant of decisions. Once target profitability is met, the decision to purchase land naturally follows. This is a good example of substantive rationality discussed in Section 3.3.

Other interpretations in the property development literature consider that satisficing occurs regarding the extent of information that feeds into a decision-making process. Adams & Tiesdell, draw attention to the imperfect nature of information in the property market and outline how this produces "bounded rationality and opportunistic behaviour" (2010:191). Gallimore et al. (2000) find evidence of satisficing occurring in other areas of the property market. They identify how property agents exhibit satisficing in their approach to property searches. They found that "scanning for information goes no further than providing the investors with enough opportunities to maintain their investment strategy. They do not scan the publicly available information until all options are disclosed but only until an opportunity is found that fulfils the initial criteria for investment" (Gallimore, 2000: 608).

Following the influential heuristics and bias programme, an abundance of heuristics was identified that were uncovered from an analysis of hypothetical decision problems in laboratory settings, thereby eliminating the real-life contextual factors that often affect decision-making. However, one review (DellaVigna, 2009) focussed on research that was consistent with the heuristics and bias programme but by contrast this was based on empirical research using non-laboratory data. DellaVigna's (2009) review found that, in general people, are prone to errors not anticipated by standard economic theory. He summarised the research and crucially outlined that people in general use heuristics to solve complex problems and are affected by emotions. He classified three deviations from

the standard economic model (DellaVigna, 2009: 316): " (1) Non-standard preferences, (2) incorrect beliefs (3) systematic biases in decision-making." The first set of deviations focuses on time, risk and social preferences. He highlights research that reveals the fact that people exhibit a lack of self-control regarding retirement savings decisions and make incorrect decisions relating to individual risk assessment with regard to insurance policies. He suggests that the work on non-standard preferences makes up the bulk of the empirical research as it is based on the population set in general. This set of deviations has the least relevance to this study. The next section discusses the other two deviations that DellaVigna, (2009) reviewed, incorrect beliefs and systematic biases which have greater relevance to this study.

3.3.3 The importance of believing in it

The second set of deviations is more specific to this research and focuses on individuals' beliefs about future outcomes. *Overconfidence, the law of small numbers*[14] *and projection bias*[15] are the three ways the deviations are classified and are discussed in turn. The research in this type of deviation is largely based on the behaviour of business managers, investors and lottery buyers. This shows that most people underestimate the probability of a negative outcome occurring. The research reveals that mangers and CEOs routinely make decisions that are biased and exhibit overconfidence.

In keeping with this tradition, the real estate research has uncovered similar biases that could be classified under incorrect beliefs, most often in the residential and commercial markets and to a much lesser extent the development land market. Recent overviews of this research are found Pandey & Jessica (2018) and Salzman & Zwinkels (2017). In their in-depth analysis of decision-making in residential markets, Salzman & Zwinkels, (2017) found that biases at the individual level may explain "inefficiencies at an aggregate level" (2017: 80). They highlight several psychological biases evident in real estate markets and found overconfidence influence residential property mispricing. These studies contain evidence of biases that result from cognitive limitations in the residential market.

Busenitz (1999) examined both overconfidence and representativeness in entrepreneurs. He compared entrepreneurs with a population of general managers in large organisations. His results show that entrepreneurs were more likely to be affected by both these heuristics

[14] Refers to the belief that small samples or personal knowledge tends to represent a population also known as over-inference and the representativeness heuristic. (Kahneman and Frederick, 2002)
[15] Projection bias has a relationship to emotional states which is discussed in Section. 3.3

and that entrepreneurs use heuristics more readily. Importantly, he suggests that because entrepreneurs use heuristic devices to overcome specific information deficiencies, they go forward with the decision to start-up businesses and consider where an opportunity exists. He links together the extreme uncertainty in the entrepreneurial ventures with the ready use of heuristic devices to "sift through the large diversity of information in the face of much uncertainty" (Busenitz, 1999: 337). A more detailed examination of entrepreneurial research is contained in Section 3.4 that follows.

DellaVigna's study, (2009) considered the *law of small numbers* from two perspectives, the gambler's fallacy[16] and inference. Both of these relate to the fact that decision-makers are willing to develop broad and detailed generalisations about something based on only a few selected facts about the phenomenon. These concepts are the primary focus of the heuristics and biases programme (Kahneman and Frederick, 2002) especially when making decisions under uncertain conditions. Representativeness is connected to the idea of the availability of information but could be also related to the idea of the evaluation of a project's likelihood of success based on the decision-maker's past success with this type of project. This interpretation of representativeness has been found in entrepreneurial research and information gathering in property markets. Representativeness is explored in Busenitz, (1999) in terms of how entrepreneurs extrapolate from their own experience. Entrepreneurs readily use their images of what will happen, and their own decision rules based on their own experience.

Representativeness has been studied to a lesser extent in the real estate market. This concept was explored in Adair et al (1994). They found that UK institutions favoured markets with good transparency of information, good quality data and a strong research base. Whereas more peripheral locations with less information did not attract the same investment levels.

Overconfidence and representativeness have been highlighted here as being identified as decision-making short-cuts. Overconfidence is a well-recognised heuristic device used in the examination of investors' decision-making (Gallimore et al. 2000), in residential markets (Salzman and Zwinkels, 2017) and Busenitz (1999) examined it in relation to strategic entrepreneurial decision-making.

[16] The gambler's fallacy refers to the incorrect belief that a random event is less or more likely to happen based on the outcome of a previous event.

3.3.4 Framing matters

DellaVigna, (2009) analysed different aspects of non-standard decision-making, focusing on some of the ideas discussed in Prospect Theory such as reference dependence. This relates to the way a decision is framed and is a central idea in psychology and behavioural economics. Heuristics are used to simplify complexity, emotions are used and social pressures exist.

Of particular importance in this section is the notion of how a decision is framed. However, it is the idea of *narrow framing,* which is only one aspect of reference dependence, that is of interest here. Narrow framing refers to the idea that when deciding, consideration is given only to that single decision and not how it might affect an overall portfolio of assets. Thaler describes this concept of *mental accounting* as "cognitive operations used by households and individuals to organize, evaluate, and keep track of financial activities" (Thaler, 1999: 183). A decision-maker who uses this type of mental accounting considers each prospect in isolation and not as part of their overall portfolio of projects or activities as a self-control mechanism. DellaVigna, (2009) relies on the assumption that decision-makers frame the decision in a narrow context also when discussing the *endowment effect*[17].

The research into heuristics and biases draws attention to the errors (when compared against standard economic assumptions) that are produced in identifying and naming the short-cuts used. Although not always explicitly stated, it also draws attention to the fact that the use of heuristics, or mental short-cuts, is widespread across many domains. DellaVigna, (2009) suggested that the experienced decision-maker exhibited fewer (not all) biases and that interesting areas for future research include phenomena that have largely been ignored such as "emotions and automatic processing" (2009: 367). The psychological aspects of decision-making, also known as cognition, examine both emotions and automatic processing. The next section focuses on the processes of cognition – gathering and processing information and details the heuristic devices that will be used in this research.

[17] The endowment effect was identified by Richard Thaler and identifies a heuristic that explains a pattern that has been observed where people demand much more to give up an object than they would be willing to pay to acquire it. For a longer discussion on this see (Knetsch and Thaler, 1991)

3.4 Cognitive processes – decision-making under uncertainty

It is commonly assumed that there are two key cognitive skills required for making economic decisions. First, analytical processes are needed to focus on detail. This is used across a variety of different domains using qualitative and quantitative information for micro-decisions with short-term horizons that have a clearer view of what may come to pass. And second, a set of complementary "bigger picture" skills (Hodgkinson & Sadler-Smith, 2018: 475) are also required for longer-term strategic decisions that have a less certain view on the future. These skills allow decision-makers to be able to cut through the minutia of the detail and place it into a longer-term perspective.

The idea of two types of processing are commonly known as dual-process theories and they have evolved independently in the different fields of social[18] and cognitive psychology (Evans and Stanovich, 2013). This link provides the theoretical connection between old institutional and old behavioural economics.

This section is concerned with setting out a framework that supports this view and is grounded in cognitive and social psychology. This type of research centres on the classic idea of how the human brain works. The conceptual basis upon which this body of work rests is that there are two competing and complementary aspects to human cognition. Reasoning and decision-making occur through the interplay of analytical and intuitive processing. The focus of this research is on the intuitive side of this duality and this section is concerned with identifying the range of attributes associated with this type of thinking.

3.4.1 Tension between two types of thinking – a classic view

The idea that different types of processing are present in human reasoning and decision-making is a classic interpretation of how the brain works (Evans, 2003, 2008). The distinction between the two kinds of thinking is both "ancient and widespread in philosophical and psychological writing" (Evans and Stanovich, 2013: 223). The ability to alternatively process information in an analytical and detailed way (deliberate) and relatively quickly cut through detail (intuitive) and arrive at a conclusion is seen as the conceptual foundation of cognitive psychology.

[18] Social psychology is a branch of psychology that is distinguished from cognitive psychology in that it is less concerned with the physical architecture of the brain and evolution and more focussed on how social aspects of psychology including consciousness (memories, feelings thoughts), free will and the implications for moral and legal responsibilities of individuals. (Evans, 2008)

Decision-making and judgement are considered to be higher-order cognitive functions and the dual processing theories related to this type of processing have been a steady focus of interest since the 1970s and 1980s. During this time, many favoured the 'System 1 - System 2' type description of how the brain works, (Stanovich, 1999) and some research supported the view that there were even separate neurological systems for each type of processing. Table 3.1 below outlines the different cognitive attributes associated with each system. This research also relates intuitive processing to a more evolutionary animal form of processing, which led to the 'two minds one brain' analogy (Evans, 2003). However, the fact that there were so many differing accounts of the two systems and processes, the general approach came under increased criticism. For instance, Kruglanski & Gigerenzer, (2011) argued for a single system that could encompass two types of processing as both processes were rule-based. Stronger critiques of dual process theories have gained prominence more recently with advances in brain imagery and neuroscience, and a brief overview of this research forms part of the next section.

Table 3. 1 Evans & Stanovich's dual-process type cognitive attributes

Attributes	Type 1 process – intuitive	Type 2 process – analytical
Defining	*Does not require working memory*[19] *Autonomous (self-determined)*	*Requires working memory* *Reflective - cognitive decoupling, mental simulation*
Associated	Fast, high capacity, parallel, non-conscious, biased response, contextualised, automatic, associative, experienced-based decision-making, independent of cognitive ability	Slow, capacity limited, serial, conscious, normative responses, abstract, controlled, rule-based, consequential decision-making, correlate with cognitive ability.

Source: Summarised from Evans & Stanovich, 2013: 225

Over the last decade, some of the ideas and terminology have been fine-tuned to reflect some of these developments. The idea of separate neurological systems has been abandoned in favour of different types of processes (now referred to as Type 1 and Type 2). Evans & Stanovich, (2013:226) recognise that different types of processing can result

[19] Working memory refers to the mind's capacity to hold small amount of information to complete cognitive tasks and is distinguished from long term memory that relates to the vast amounts of information learned over a life time. Capacity in this area is often related to higher levels of intelligence, information processing, problem solving and learning.(Cowan, 2014)

from "multiple cognitive or neural systems" and that the system 1 and system 2 terms are no longer adequate descriptions.

Additionally, there have been many interpretations of the different attributes that are associated with each type of thinking. Evans & Stanovich (2013) arrive at a generic set of attributes associated with both types of processing and assert that the defining characteristics are based on the use of working memory. Accordingly, type 2 processing uses this while type 1 processing does not. Abstraction and hypothesising are also defining features of type 2 processing. The other attributes are only correlated or associated with these two types of thinking. Cognitive attributes associated with both types of processes[20] were summarised in Table 3.1 on the previous page.

Linking back to ideas of rationality discussed in Chapter 2, it is easy to see how some research (such as Epstein, 1994) describes Type 2 processing as rational. This, combined with the large body of work on biases in decision-making suggests that Type 1 processing (intuitive, heuristic) can lead to incorrect judgements and Type 2, to more accurate ones. The idea of judging some decision-making as being either good or bad or correct or incorrect is extremely difficult to determine due to the subjective nature of when the intended outcome is reconciled with the initial decision. Though this does not form part of this research it is nonetheless an interesting consideration.

Evans & Stanovich, (2013) acknowledge that the speed of decision-making with Type 2 processing could also be fast and casual. If decision-makers are using working memory to drill through a set of rules or criteria applied to a decision problem, then the processing could be quick and casual or slow and thoughtful, care must be taken when loosely applying certain correlated attributes outlined above.

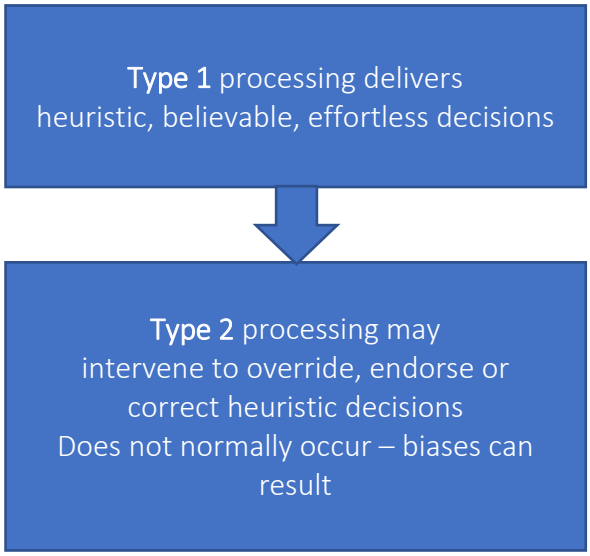
In addition to the debates over brain architecture and neuroscience, there is a lack of agreement in the literature on the interplay between these two processes (Evans, 2008; Evans and Stanovich, 2013; Hodgkinson and Sadler-Smith, 2018). The distinction is seen in whether the default position is to rely on the more intuitive style of processing and only when necessary revert to the more deliberate. An alternative account assumes a parallel-style processing occurs and competition between the two types occurs for control of

[20] Processes are assumed to be different for different types of cognitive tasks under the dual-type theories. Dual systems assumes that there is some evolutionary and neurological distinction which has since been disproved (Feldman Barrett, 2017)

thinking. These theories are classified as being either *default-interventionist* or *parallel competitive.* (Epstein, 1994; Epstein and Pacini, 1999)

This distinction is significant for this research because it speaks to what these theories were designed to address. According to the default interventionist theories, the decision-making process is stimulated by an external event. The default intuitive decision-making process reacts and decisions that result are called *intuitive* once they are not changed. (Kahneman & Frederick, 2002: 51). These are generally unchallenged, but if they are, the more analytical processing intervenes to correct the decision.

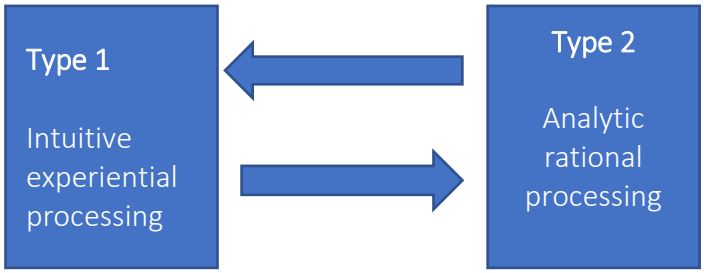
Fig 3-1 Default-interventionist processing theories



Source: summarisied from Kahneman & Frederick, (2002)

Overreliance on this type of decision-making results in the type of biases outlined in Section 3.3.1. The processual nature of property development implies that, if this type of decision-making was pervasive then the accrual of errors has the potential to explain amplification of outcomes. Recent developments in neuroimaging and alternative interpretations suggests that there is an interplay between both types of processing and evidence for this type of interplay between processes is put forward in the social psychology literature (Evans, 2007).

Fig 3-2 Parallel-competitive theories



Source: Summarised from Evans, 2007

While the debate between the two processing systems was never resolved, interesting work in neuroscience draws on extensive research that indicates that emotions have a much greater role in brain activity than was previously thought. The next section examines the implications of this.

3.4.2 The emotional brain

The research at the edge of neuroscience (Feldman Barrett & Bliss-Moreau, 2009; Feldman Barrett, 2017; Fridman et al. 2019; Serra, 2021) is challenging the classic view that the brain processing functions operate separately and that there is a tension over controlling behaviour. This research considers the brain as more of a single network of highly complex communicating neurons that can create a high number of "spatiotemporal patterns" (Barrett, 2017: 3), which are the basis of our emotions. Emotions, therefore, are not located in one part of the brain. Instead, many areas of the brain that are normally associated with cognition are now understood to be engaged emotionally. This is a rationale for not dividing the emotional from the cognitive (Gendron and Feldman Barrett, 2019) which has very interesting implications for decision-making and intuition.

The idea that the brain sparks into action from an external stimulus is turned on its head and now it is suggested that the brain is constantly processing and predicting, not reacting. The brain controls the body in a predictive manner and each prediction has an associated action plan and sensation. To predict, the brain must develop perceptions of what is happening by monitoring "statistical regularities in the extra personal world, but also the statistical regularities of the internal milieu" (Barrett, 2017: 5). The sensations that are felt are basic feelings (either weak or strong) of effect which can be described as being either pleasant or unpleasant. To predict this, research suggests that experience is used as a guide.

Barrett, (2017) asserts that no decision thought or perception is ever free from these simple feelings or affect. We don't act because we understand something, experience helps us to make sense of current external and internal information. Without past experiences, you cannot transform "flashes of light into sight, chemicals into smells and variable air pressure into music" (Feldman Barrett, 2017: 7). This explains how our emotions are constructed to help us predict and make sense of what is happening around us. This has been formalised into the theory of constructed emotion.

An important emphasis exists on individual differences in the "granularity[21] of emotional construction"(Gendron & Feldman Barrett, 2019: 563). The precise articulation of sensations and emotions is associated with more specific and detailed action planning and better self-regulation. Individuals with lower emotional granularity experience feelings as more basic sensations and struggle to conceive of an appropriate action plan and self-regulation.

Earlier discussions on dual-process theories of cognition avoided the role that emotion plays in decision-making. Evans (2008) acknowledged this fact in his comprehensive review of the psychological dual-processing accounts of reason and judgement and suggested that it is clear emotional processing would be placed in the more intuitive processes. Epstein, (1994) also placed emotion in this category.

The purpose of unpacking classic and cutting-edge ideas on cognition is to develop a conceptual psychological framework for decision-making under uncertainty. This research supports the view that decisions are made using intuition and rules developed from past experience (heuristic) and that emotions play a significant role. The next section sets out findings from research on intuition.

3.4.3 Towards a new psychological decision-making conceptual framework

An examination of the classic view of cognitive processing and the more cutting-edge work in neuroscience outlined above asserts that intuition and emotion play a large part in human decision-making. In addition, DellaVigna's, (2009) review of recent empirical research in the area of behavioural economics across disciplines highlights both emotion and automatic processing as potential areas for future research. Consideration is now given to a growing area of research in intuition-based decision-making in the areas of

[21] Emotional granularity is achieved when an individual uses cultural learning from past experience to identify the sensations or emotions that they are feeling. It also extends to recognising what others are feeling.

management (Dane and Pratt, 2007; Hodgkinson et al., 2008; Hodgkinson and Sadler-Smith, 2018) and entrepreneurial decision-making, Mitchell et al., 2005; Baldacchino *et al.*, 2015; Shepherd et al., 2015; Sadler-Smith, 2016; De Winnaar and Scholtz, 2020) and emergency response (Klein, 1998, 2015) which have relevance to this research. This is designed to map out this dimension of the conceptual framework for this research.

Empirical research on intuition-based decision-making in the property development literature has yet to be widely explored. This research addresses that gap. The use of gut feelings and intuition is assumed (Pandey and Jessica, 2018) in property market research, mainly due to the imperfect nature of the information but also uncovered through qualitative research. For instance, Gallimore et al. (2000) suggest that most investors in the property market use quantitative analysis to help develop a "gut feeling" for an investment's quality (2000: 610). In addition, it is also anecdotally used when discussing the entrepreneurial character of property developers (Adams, Croudace and Tiesdell 2012; Guy, 2002).

In this section, greater attention is paid to drawing a conceptual boundary around intuitive processing for this research. It stresses the role of experience, the use of heuristics and the extent of, emotions and affect, in intuitive processing. Although there is a theoretical overlap between the research on heuristics and biases and the research on intuition there are three significant differences. First, the research on intuition does not delve into the variety and depth of mental shortcuts or heuristics processes contained in intuitive decisions. Second, the research on intuition is domain-specific and generally tries to uncover ways of supporting intuitive decision-making as opposed to focusing on deviations from a neoclassical norm. Third, research on intuitive decision-making generally forms part of what is called "cognition orientated research" (Baldacchino et al. 2015: 212) alternatively known as procedural rationality whereas the research outlined in Section 3.3 focuses on substantive rationality.

Identifying entrepreneurial intuitive processing

Gut feelings, hunches, intuition are all used to rationalise decisions. Believing them to be decisions that are made using simple rules of thumb that take advantage of experience Gigerenzer states intuitive decisions are those:

> "That appears quickly in consciousness
> Whose underlying reasons we are not fully aware of and

Is strong enough to act upon." (2007: 16)

There are different ways of defining intuition and this lack of agreement has inhibited research into this area (Salas, Rosen and Diazgranados, 2010). Cognitive psychology research tends towards a definition in line with the descriptions contained in Table 3.1 not requiring working memory and therefore is automatic. This is at the heart of most definitions. Intuitions are automatic responses that do not require "controlled attention" (Evans & Stanovich, 2013: 236) to arrive at a decision and once identified they are not regulated by a secondary, more thoughtful (reflective) response. The automatic nature of this type of decision-making is a good basis upon which to identify it. This contrasts with analytical decision-making which is identified as being slower and more thoughtful and therefore not felt strongly enough to act upon.

An important link must be made early on in this conceptual framework. That entrepreneurs rely more on intuitive heuristic-style decision-making processes. The reasons for this will be discussed in the next section, however, for now, evidence for this link is provided. There is a growing recognition in the literature that entrepreneurial intuition is linked to opportunity identification. This has been identified as "the dynamic process by which entrepreneurial alertness cognitions interact with domain competence (e.g., culture, industry, specific circumstances, technology) to bring to consciousness an opportunity to create new value" (Mitchell et al., 2005:667).

Beyond the characteristics of intuitive decision-making given above, and when taken together with the evidence in neuroscience of the increased role that emotional activity plays in cognition, there is a sound rationale for expanding this to include feelings, affect and emotions into a definition. In addition, prior learning and experience are significantly linked to the ability to successfully intuit appropriately to arrive at successful outcomes. These factors together with the characteristics of the decision environment are discussed in turn in the next section.

Uncertainty in the decision environment

An important focus of the research into intuitive decision-making and this research is the nature of the decision, specifically the degree to which this is complex and uncertain. The general literature on intuition suggests that decisions and tasks that involve a high level of uncertainty and absence of information leads to intuitive decision-making. (Agor, 1986). This idea also has particular resonance in the entrepreneurial and management literature

(Dane and Pratt, 2007; Hodgkinson et al., 2008; Sadler-Smith, 2016, 2020; Hodgkinson and Sadler-Smith, 2018). Entrepreneurs are known to operate in environments that are characterised by risk, uncertainty, personal commitment (McMullen and Shepherd, 2014). Having a more analytical systematic approach to decision-making under these conditions can lead to paralysis and can often hamper decision-making. The ability to quickly integrate a complex set of information cues to arrive at a decision and associated action plan is more easily achieved with an intuitive cognitive processing style (Dane and Pratt, 2007). Shepherd et al. (2015) carried out a comprehensive review of the literature on entrepreneurial decision-making. They based their research on the different types of decisions that entrepreneurs are faced with. These are opportunity assessment, market-entry, opportunity exploitation and market exit decisions. Entrepreneurs are seen to be particularly "alert" to the identification of opportunities and because of this they appear to operate at the more strategic or longer-term thinking (Mitchell et al., 2005:655).

The role of experience

The notion that intuitive decisions are made as a result of domain specific experience finds considerable support in the literature. Simon suggests that intuition is "analytical thinking frozen into a habit and the capacity for rapid response through recognition of familiar kinds of situations" (1979: 139). Simon's view is a good example of how experience and familiarity are cornerstones of intuitive decision-making. Simon believed that people chunk information together so that they can retrieve it easily as the situation requires it. In this sense decisions are more likely heuristic responses, a term that is often used in conjunction with intuition. However, the conceptual framework for this research is consistent with the view that all intuitive processing (Type 1) is heuristic (Evans and Stanovich, 2013) and one of the crucial differences between the two relates to whether the rule is remembered or, is so hard-wired from experience, it is assumed to be automatic. This point is discussed below in greater detail.

The twin ideas of experience and being able to visualise or make mental models of situations finds resonance in other branches of intuition research. There is strong support for this type of decision-making in research on emergency medicine, police and military settings. The branch of research connected with this is known as naturalistic decision-making. The origin of this research came from seminal work on the psychological study of how chess grandmasters could quickly perceive and follow a skilful and successful line of play when compared with novice players (Chase and Simon, 1973). The ability of

experienced players to appreciate the dynamics of complex situations and identify patterns using experience was seen as a key skill in achieving this. This approach is contrasted with the heuristics and biases research that routinely focuses on the biases that result from the use of heuristics in decision-making (see Section 3.3). Studies in naturalistic decision-making have been replicated across many domains that are characterised by the need for the decision-maker to make rapid decisions in their immediate physical context, for example, military command and control, system design, (Klein, 1998).

Klein's work focuses on pattern recognition processes and has formalised this into a recognition primed decision model (RPD). In this model, decision-makers go through a two-stage process, first, the situation is assessed in a quick sizing up exercise, then a course of action is arrived at by "imagining" it (Klein, 1998: 24). These aspects are often tacit and hard for decision-makers to articulate but stress the importance of experience. Developing richer mental models strengthens pattern recognition helps to lessen the perceived impact of uncertainty in a situation. The idea of mental model development is an important concept in this literature. Klein, (2015:167) puts forward a description of these models as "peoples' beliefs about causal relationships" and suggests that analysis should be directed at the "concepts and the relationships that the person has the mental model about".

A common theme amongst naturalistic decision-making studies is that they are trying to demystify intuitive decision-making and identify the cues that are often difficult for the decision-maker to identify. Naturalistic decision-making defines experience as being based on a history of successful outcomes combined with evidence that they are considered experienced by their peers. Klein focuses on experienced decision makers as being those who can "recognize that a situation is anomalous and poses a novel challenge is one of the manifestations of authentic experience" (Kahneman and Klein, 2009: 522). Other definitions of experienced intuition and how it is distinguished from novice intuitive decisions are that they are based on domain-specific knowledge acquired during the later stages of their development where a deep and rich knowledge base has been gained (Salas, Rosen and Diazgranados, 2010). Added to this is that the ability of experienced decision makers to make fast intuitive decisions as they have developed "abstract rule-based knowledge of a domain" and that they are likely to obtain feedback that supports this type of decision making (Salas, Rosen and Diazgranados, 2010:944).

So far, a number of different strands of research that focus on intuitive decisions have foregrounded experience and the ability to envisage a sequence of events are important conditions for intuitive decision-making.

The role of emotion and affect

Emotion and affect have already formed a significant part of the discussion on decision-making. Dane & Pratt, (2007:33) define intuition as "affectively charged judgments that arise through rapid, nonconscious, and holistic associations". Combining this with recent developments in neuroscience discussed in Section 3.4.2 supports the view that emotional affect plays a large role in decision-making. This section considers the role of emotion in intuitive processing and why it is relevant.

Emotion and affect are associated with an intuitive process in two ways: the trigger and the outcome. This often leads to an explanation of a feeling or a gut feeling when the intuitive decision is arrived at. Affect in intuitive decisions has been recognised to manifest itself in "gut feel" (Gigerenzer, 2007; Sadler-Smith, 2015). Positive, optimistic emotional experiences play a role in non-conscious associations which are a key attribute of intuitive decision-making processes (Lieberman, 2000; Baron, 2008). Added to this is the fact that non-conscious associative abilities are often related to creative abilities. The decision-maker's emotional tenor can influence the outcome, this has also been referred to as overconfidence. For example, when positive emotional feelings are in the foreground of consciousness, it is experienced as a personal reaction to the world and if this is positive it can serve as information for a decision (Feldman Barrett & Bliss-Moreau, 2009). This work highlights the importance of emotional granularity linking it to experience and ultimately how it leads to better judgements (Seo *et al.*, 2007; Gendron and Feldman Barrett, 2019). This view is supported in the entrepreneurial literature. Emotions and moods were given as significant factors that affected entrepreneurial opportunity assessment decisions. Baron's work draws a strong conceptual connection to the role of emotions and entrepreneurship and suggests that in contexts that are characterised by uncertainty and unpredictability, emotional states can often "tip the balance towards specific actions or decisions" (Baron, 2008: 329). Greater risk was associated with fear and hope than when associated with anger or happiness. (Shepherd et al., 2015). It is the emotional state that is induced that either supports or rejects the decision.

Sadler-Smith, (2016) considers that affect and emotion deserve particular attention when developing any model of entrepreneurial decision-making due to the significance that

entrepreneurs and researchers give to it. However, they consider it crucially relevant because entrepreneurial decision-making is associated with what they describe as an intuitive style decision-making. Their work stresses the importance of a decision-maker's ability to recognise and define their emotional state discussing ideas of valence and going so far as to outline that affect is a heuristic that entrepreneurs use. These ideas are reflected in other work also (Evans and Stanovich, 2013; Feldman Barrett, 2017; Gendron and Feldman Barrett, 2019).

Baron draws an important conceptual link between positive emotional states and the ability of entrepreneurs to develop social networks and therefore gain access to important resources. (Baron, 2008). He suggests that where entrepreneurs experience positive affect or emotional states they are more likely to engage in social network and capacity building if they feel that the present uncertain environment poses no threat. In this way a positive emotional outlook may be more effective at persuading potential investors to the value of their new opportunity.

Entrepreneurs are known to rely on intuitive judgements to source and pursue opportunities. The nature of the decision environment and the twin and interrelated factors of experience and emotion are considered to provide a significant role in decision-making. First, they are key attributes of helping the decision-maker to sift through information and "join the dots" where complexity and uncertainty are characteristics of the environment. Second, the ability to recognise patterns from previous experience that manifests in either a positive or negative emotional state and acts as a decision heuristic has been highlighted in the literature above. Moreover, together these factors are well represented in the entrepreneurial decision-making literature and are concepts that this research focuses on.

3.5 Conclusion

Behavioural economics has provided a firm grounding for the notion that heuristics-based decision-making is common in many domains. More recently, this research has stressed the deviations that this produces. The heuristics and bias programme has provided a long list of the decision short-cuts commonly used. This research uncovers how human decision-making routinely deviates from a theoretical norm when using heuristics. Though it does not question the often-neoclassical theoretical nom, it underscores the importance of the heuristic processes that are at play. Cognitive psychology and neuroscience are independently strengthening this idea. The cognitive processes at play are more intuitive

(automatic) and emotionally charged. A significant amount of work in specific research domains of entrepreneurism, management, emergency response and learning and teaching has provided some interesting insights into this area.

This research considers property developers to have similar characteristics to entrepreneurs and builds on some of the research in entrepreneurial decision-making. The notion of property developers as entrepreneurs is not new, but formalising it in this way allows comparison across domains. This work builds on ideas of how entrepreneurial decision-makers deal with complexity and uncertainty and make decisions to go forward with projects.

The heuristics and bias programme has highlighted the importance of beliefs about future outcomes of a decision. How a decision is framed in the decision-maker's mind is vital to the outcome. Emphasis is also put on how decision-makers trust their information and overestimate its precision. Neuroscience and cognitive research emphasise the importance of mental models and visualisations as central to decision-making. Decision-makers rely on experience and being able to accurately recognise the fine-grained nature of your own emotional state. These ideas are considered in this research.

Unlike the newer behavioural economics that examines decision-making at an aggregate level, this study follows Simon's idea of understanding it by inductively studying the experience of the decision-maker. The next chapter outlines the methodological challenges and approaches that this study has used.

Acknowledging that a lot of theoretical ground has been covered so far, and to make the transition from the preceding chapters into the subsequent methodological and empirical chapters more flow with greater ease, a final section ends this chapter. This summarises and weaves together the combined perspectives used in this research to form a new conceptual approach for decision making.

3.6 A new conceptual framework

The central question being asked in this research relates to how property developers make real-life decisions in a process that is characterised by complexity, uncertainty and imperfect information. Chapter 2 developed the concepts that provide the scaffolding to explore how property developers make decisions from a socio-cultural perspective. These are drawn from the considerable theoretical and empirical research in the urban

development literature. Chapter 3 delved into the psychological aspects of decision making, drawing on the considerable body of work that examines how entrepreneurs make decisions. Decision-making attracts a lot of attention across many disciplines which is unsurprising for a number of fundamental reasons. Firstly the outcome of many development decisions, has a significant bearing on society as a whole. Revisiting Fainstein's quotation from Chapter 1, decisions by property developers have become "crucial elements in forming the future character of the urban economy". (Fainstein, 1994: 2). Secondly, if policy is to be influential in shaping decisions, it is essential that we fully appreciate the forces that shape them. Finally, if we have a better understanding of how property developers make decisions, we may be able to help make them better.

3.6.1 A socio-cultural perspective

Several concepts are woven together under this perspective that are grounded in the idea that markets are socially constructed and not a separate abstract entity operating of its own accord.

Embedded in local networks and relationships

Property developers' decisions and actions are embedded in a spatially and temporally defined *local* institutional context (Charney, 2003; Beauregard, 2005; Henneberry and Parris, 2013). The characteristics of this context are determined by the rich network of prevailing institutional rules, conventions and relationships between the public and private sector (Keogh and D'Arcy, 1999; Adams, Leishman and Watkins, 2012; Brill, 2020). Hodgson's (1998) idea that *rules and habits* play a crucial role in understanding behaviour is a conceptual building block in this research. Social, more than formal *relationships* and the evolved web-like structures of relationships (*networks*) are brought into sharp focus in this conceptual framework. Emphasis is put on a the network's power to act as local contextual information highways (Beauregard, 2005; Charney, 2007; Adams, Leishman and Watkins, 2012; Henneberry and Parris, 2013). Different types of networks reflect different types of relationships, where social and organisational networks are differentiated (Henneberry and Parris, 2013). Degrees of embeddedness are understood in terms of the depth of personal relationships, where the most embedded relationships are deeply personal, built up over time and based on experience of working together (Henneberry and Parris, 2013). The crucial network elements are trust, reputation and the desire to collaborate strengthening network ties and ensuring membership to this highly advantageous network. (Varna, Adams and Docherty, 2020). Though trust is often

discussed as being a component of social relationships, trust in a committee or the institutional dimension of a person's role is also highlighted as being as important (Adams, Leishman and Watkins, 2012). The extent to which this is the case is centred on perceptions of competence, honesty, reliability and reciprocity (Höppner, 2009).

Cultural influence

This conceptual framework draws on ideas influenced by the cultural economic perspective (Du Gay and Pryke, 2002). This perspective emphasises how calculative practices such as development appraisals and their associated performance metrics have cultural significance and help to perform market activity by demonstrating rather than observing rationality (Miller, 2001; Henneberry and Roberts, 2008; Munro and Smith, 2008). Property developers have often been described as organisers, orchestraters and critical links in the chain of decisions in the development process (Gore and Nicholson, 1991; Healey, 1991; Adams, Croudace and Tiesdell, 2012). Often crucial financial resources are required at the beginning of a project when the future outcome is most uncertain, and the quality, depth and integrity of the information available is at its weakest.

Place-based and non-place-based behaviour

A vital cornerstone in this research is the idea that decision-makers do not all behave in the same way and that a diversity of behaviour can be observed. (Coiacetto, 2001; Charney, 2007; Adams, Croudace and Tiesdell, 2012; Rosen, 2017). Over the last two decades, following Coiacetto's (2001) original call for further research into this, a distinction is beginning to emerge and is gathering ground. This acknowledges how locally place-based private sector developers respond to local factors, are often independent and seek out development potential that is not traditionally associated with prime locations. This contrasts with non-place-based developers, who are often institutional and less well embedded into local development markets.

3.6.2 A psychological perspective

Though the concepts from this perspective can be tied together more broadly from a psychological perspective, their reach extends beyond that. Within this approach, support was drawn from the behavioural economics literature, cognitive psychology and recent advances in neuroscience. This research draws together the notion that developers are the classic entrepreneurs of the built environment, that intuitive decision-making takes place

under uncertainty, is emotionally charged, and depends on the decision maker's experience.

Identifying as entrepreneurial intuitive decision makers

As a starting point, intuitive decision-making must be identified. The literature defines this as being fast, automatic and often described as being beyond conscious thought, strong enough to act upon and requiring little mental effort to arrive at (Gigerenzer, 2007; Hogarth, 2010; Evans and Stanovich, 2013). A crucial conceptual link for this research is that decision-makers consider themselves to be entrepreneurial, strengthening the argument that property developers are more likely to use intuition to arrive at decisions (Mitchell et al., 2005).

Uncertain decisions and environments

The notion that entrepreneurs rely on intuitive decision-making is grounded in the idea that the decision environment is uncertain and often requires the personal commitment of the decision-maker (McMullen and Shepherd, 2014). In these decision environments, having the ability to cut through many complex information cues and form decisions is advantageous. Busenitz (1999) goes so far as to suggest that for entrepreneurs, using heuristics and intuitions could be seen as beneficial. He suggests that the "new ventures would never get launched within an appropriate window of opportunity" (Busenitz, 1999:337). The literature highlighted that entrepreneurial decisions include opportunity assessment market entry and exit (Shepherd et al., 2015). Building on this, Mitchell, Frida and Mitchell suggest that entrepreneurs are particularly "alert" (2005:655) to identifying opportunities and therefore operate at a more strategic level of thinking. Attention has been directed at processing diverse and sometimes absent information that requires "bigger picture" skills (Hodgkinson & Sadler-Smith, 2018: 475). This has been linked to longer-term strategic decisions with a less certain view of the future. These skills require decision-makers to cut through the minutia of the detail and place it into a longer-term perspective.

Experience

This research considers that experience plays a crucial role in intuitive decision-making. Much support for this has been provided from different domains (See section 3.3.1).

Through experience, decision-makers create mental maps that help them predict what will occur and foresee a pattern of eventual outcomes (Chase and Simon, 1973, Klein, 1998, Klein, 2015). The twin factors of domain-specific experience and positive feedback from using intuitive decisions in the past privilege experienced decision makers over novices. (Salas, Rosen and Diazgranados, 2010)

Emotions

Emotions and the use of intuition are closely related. This was most succinctly articulated by Dane and Pratt, who suggest that intuitive decisions are "affectively charged" (2207:33). Baron goes further and suggests that there is a link between the emotional state of the entrepreneurial decision-maker and their ability to recognise an opportunity (Baron, 2008). The link between emotion and its use in decision-making has been made forcefully in the cognition literature (Section 3.4) and more recently in neuroscience which adds considerable weight to this assertion.

3.6.3 Real-life development decisions

Whilst this research focuses on the decision-making processes, it acknowledges a distinction between different decisions within the development process. This helps to characterise decisions in terms of the timeframe, level of uncertainty and quality of information available to the decision-maker at the time the decision is made. This view is reinforced in the psychology literature that foregrounds the limitations of human decision-makers and decision-making under uncertainty (Section 3.3). Therefore, decisions can be seen as *longer-term* when their outcomes occur further into the future with less fine-grained information. On the other hand, *shorter-term* decisions are made in a specific environment where real-life market information is available and can be obtained. This section has summarised the key concepts in the conceptual framework for this research. The following section is a departure from Chapters 2 and 3 and focuses instead on the research strategy and methodoligical design.

PART 2 – REAL-LIFE DEVELOPER DECISION-MAKING

4.1 Introduction

> "To understand the processes that the economic actor employs in making decisions calls for observing these processes directly while they are going on, either in real world situations or in the laboratory, and/or interrogating the decision-maker about beliefs, expectations, and methods of calculation and reasoning" (Simon, 1986:211)

This quotation lays the ground for the research design rationalised in this chapter. The tone of the thesis changes gears now as it is concerned with the strategic approach to the research design and the methodology developed to collect and analyse the data.

This research is concerned with understanding how property developers make decisions in a complex and idiosyncratic process characterised by uncertainty and poor-quality information. This chapter explains how this research was conceptualised, designed and carried out and how the difficulties and challenges encountered along this journey were handled. This research was undertaken in Dublin, Ireland, using the city as a single case. This proved to be a rich case study source as successive governments in Ireland have relied on a "property-based growth machine"(Moore-Cherry & Tomaney, 2019: 370), which has resulted in an increasing amount of development activity.

The period chosen was the decade from 2010 – 2020 primarily to reflect two things, the timeframe for property development and to allow for changes to the institutional arrangements. As part of this, attention was also drawn to the economic turbulence in Ireland due to the 2008 GFC. These events shaped many institutional arrangements in the development market over the study period. The primary qualitative data for this research is based on detailed semi-structured interviews with 13 developers active in the local development market. The precise way this research strategy and methodology was constructed is explained and rationalised now. This chapter is split into two parts. The first part is concerned with rationalising the research context, strategy, and method - the second part drills into the actual case study design.

4.2 Research context and strategy

4.2.1 What is known

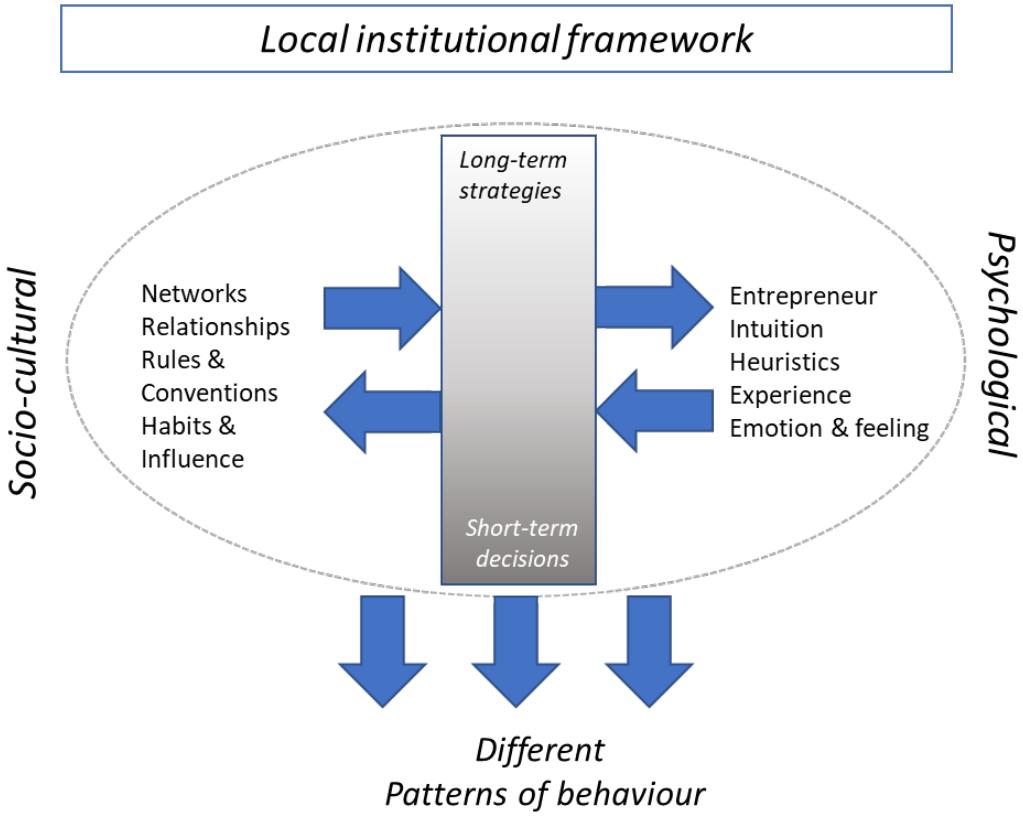
To arrive at an overarching strategic approach, attention was paid to what is already known in the research context. Theories and conceptual frameworks were developed that directed the research strategy for this study. Table 4.1 below summarises the research themes highlighting areas for research. They map out the boundaries of this research and the nature of the research questions that are central to this study. This table draws together the conceptual framework developed from a review of the different theoretical perspectives discussed in Chapters 2 and Chapter 3. In these chapters, emphasis is placed on the importance of the spatial and temporal local development market as a context for decision-making. The intention is to weave together the socio-cultural processes (Chapter 2, Section 2.3.2) and emotionally driven intuitive aspects of decision-making (Chapter 3, Section 3.4.3) that are to be explored.

Table 4. 1 Research themes and areas for research

Themes	Areas for research
Decisions are made in the context of a local institutional setting	A local institutional property development market o Specific temporal and spatial setting o Public and private sector institutional settings o Networks of rules, conventions and relationships o Structure of development market
Developers use local development market networks of rules and relationships to drive projects forward	Socio-cultural processes o Manage institutional networks of rules and relationships to provide certainty, develop strategies and filter information. o Diversity of behaviour that results in the context of "place-based" and "non-place-based" distinction (Adams and Tiesdell, 2010:199)
Intuition heuristic	Psychological/ emotional processes o Emotional and automatic responses o Associates and assimilates information o Experience and learning

Chapters 2 and 3 developed the theoretical and conceptual basis for this research, Section 3.6 put forward the conceptual framework used in this study. Fig 4-1 below provides a graphical representation of this framework. The centre rectangle represents the internal considerations of the developer regarding the nature of the decisions to be made. The shading is designed to represent the degree of uncertainty and amount of information available. This suggests that as a property development progresses through the process of events clarity of information and reduction in uncertainty occurs. Decisions are affected by internal psychological forces and external sociological considerations. A diversity of behaviour that results from this process.

Fig 4-1 Developer decision-making – a new conceptual framework



4.2.2 The strategy

The classic and "useful" (Bryman, 2016: 31) distinction of research strategies is well known and can be described as being either quantitative and qualitative or a mix of both approaches. Typical descriptions of what constitutes qualitative research include: that the research is mainly concerned with understanding 'how' or 'why', the fields of study are not artificial situations in laboratories but are everyday situations. This type of research generally tries to understand the social world from the subject's view point, which is framed by the prevailing context. (Bryman, 1984, 2016; Flick, 2002). Whereas quantitative research is concerned with calculation and numbers, and is generally deductive from theory to research. This type of research uses the practices and norms of the natural scientific model and particularly of positivism. As the name implies, a mixed-methods approach blends both qualitative and quantitative strategies in one research project. Whilst on the surface a qualitative approach appears most appropriate, an alternative discussion might illustrate why this is the case more clearly.

The development of a research strategy flows from the researcher's views concerning several philosophical issues and the nature of questions within the research's overall aim. Each researcher has to interrogate, as much as possible, their views (both implicit and explicit) on how theory and research affect each other and their orientation towards the nature of reality (ontology) and what is acceptable knowledge (epistemology). A conscious examination of core assumptions concerning reality and knowledge and how knowledge is gained was required.

The relationship between theory and the research findings is meaningful because it indicates how one relates to the other. A new conceptual framework was developed for this research. It combines two broad perspectives that can be described as social and psychological. The concepts in the framework are organised into a set of researchable questions embedded in this research. This brings together essential elements of accumulated knowledge regarding how property developers make development decisions. These are summarised on the next page.

Table 4. 2 Methodological considerations - data sources and research questions

Methodological Aspects Sources and nature of information	Context and Questions embedded in research
Policies, guidelines, professional reports, government publications, and quantitative data to describe developments and developers in market, relates to specific time and place.	Local institutional development market context
Detailed and specific developer attitudes and opinions relating to actual live property developments from semi-structured interviews	**Local regulations and rules and conventions** How are they used, learned? How are areas of certainty and uncertainty managed How and why do strategies evolve **Relationships within the network** Formal and informal What role does trust play? What types of information is sent and received? How is change dealt with/ influenced How strategies and decisions evolve **What in diversity results** Private, institutional and place-based and non-place-based
Detailed and specific developer attitudes and opinions relating to actual live property developments from semi-structured interviews	Entrepreneurial characteristics What types of decisions are associated with intuitive decision-making How can automatic / intuitive decisions be identified Emotional dimensions of intuitive decision-making **What diversity results** Experienced and novice?

Having identified the nature of the enquiry from the research context, a methodological pathway began to emerge. The first decision concerns the nature of the information. The next section considers the overall strategy to the design of the research, and explains why a qualitative strategy was pursued.

In broad terms, a conscious examination of core assumptions concerning reality was used to drive the types of information collected. In that sense, the research has a deductive quality, testing what is already known. This research can be described as having a deductive quality.The key ideas and accumulated knowledge in the area of property developer decision-making were explored to find common and contrasting approaches in a Dublin development market context. It also seeks to uncover behaviours and decision-making strategies where the literature is largely silent. As a counterbalance to this a more inductive approach was also used where developers recounted their motivations, strategies and decisions regarding specific real-life property developments. The purpose of this was to cross-check developers' attitudes and opinions against actual real-life decisions and to support the assertion that the results of the research are not researcher-led.

This approach is novel in its design and is based on an approach to qualitative research design that seeks to introduce added rigour to qualitative research (Gioia et al., 2013). Real-life development projects were examined, and specific decisions were interrogated to understand how and why different decisions were made concerning property development. A set of researchable questions were developed so that the data analysis is directed in a meaningful way. These questions are are deductively derived from the conceptual framework and provide direction for analysis. This is developed further in Section 4.3.5.

4.2.3 What is knowledge

An essential consideration centres on what is acceptable knowledge in a discipline and, crucially, what is the researcher's understanding of this. There are numerous positions within this division of knowledge (epistemology). An interpretivist epistemological position supports the position that tries to understand the "social world through an examination of the interpretation of that world by its participants" (Bryman, 2016: 375). This implies that close involvement with participants in the research is required to understand human behaviour. This research considers that decision-making forms part of behaviour. This is also consistent with many behavioural studies. Ploegmakers *et al.* (2013) study decision-making processes of public developers in the Netherlands chimes with this view. They cite Simon (1986: 211), who considers that "to understand the processes that the economic actor employs in making decisions calls for observing these processes directly while they are going on". Understanding a decision-making process as it is 'going on' was not achievable. A common approach of the behavioural decision-making studies (Hardin, 1997; Diaz and Wolverton, 1998) is to use a hypothetical case combined

with a process tracing exercise as a way of examining actor behaviour (in these cases, the property valuer and the property lender). The focus of this research is to understand real-life decision-making. Therefore, creating a hypothetical situation that mimics a real-life situation was also not thought to result in real life decision-making. The view taken was that the participants in the study would not be truly motivated by the hypothetical case put forward. In addition, the researcher would have to frame a hypothetical decision environment thereby selecting the variables and adding potential researcher bias into the situation.

Gaining in-depth information from the developer's perspective regarding real-life development projects was the best way to understand how decisions are made. Participants were invited to recount the critical decisions in their selected development project. The researcher then interrogated how different decisions were made so that the prevailing and expected future context, and the decision-making process, could be observed.

4.2.4 Whose reality?

Reality can be conceptualised in a number of ways. This has already formed part of the discussion in Chapter 2, Section 2.3.2 where it is clear that reality is constructed by the participants in that reality. Attention was brought to the understanding that for example, markets are constructed by the actors in them; they are not external to the participants. This view of social constructionism is a foundation of this research design.

Therefore, a deeper understanding of what constitutes reality and the nature of information that are the foundations to this research points to a qualitative research strategy. In this way it foregrounds the developer’s view on how decisions are made in real-life development projects within a socially constructed development market context.

Table 4. 3 Research questions and methodological considerations

Research Questions	Methodological Considerations
1. To what extent does property developers' embeddedness in local development market networks give them the ability to manage uncertainty and filter information, and inform decisions and strategies?	Detailed and specific developer attitudes and opinions relating to actual live property developments in a development market context.
2. Under what conditions and to what degree is intuition used by property developers as a decision-making heuristic in the property development process?	Detailed and specific developer attitudes and opinions relating to actual live property developments in a development market context.
3. To what degree can an exploration of embeddedness in local development market networks and use of intuition shed light on Adams and Tiesdell's (2010:199) "place-based and non-place-based" entrepreneurs?	Detailed and specific developer attitudes and opinions relating to actual live property developments in a development market context.

There are clear methodological considerations that flow from the table above. The task was to decide how to proceed with these concepts and handle the challenges. Several striking observations from the specific areas are identified in the table above. First, there is a context to be considered, then real-life experiences and attitudes have to be collected and finally, the boundary between these and how they impact decisions is blurred. The nature of the inquiry at the heart of this research rests on asking how and why questions. These factors point to the use of a case study. The discussion continues with an in-depth examination of the case study and why it is most suitable for the research questions outlined above.

4.3 The case study design

There is a growing body of empirical research on property development and property developers. Table 4.4 below summarises studies that provide methodological and substantive insights for this study. This table is illustrates that the case study method of research is consistently used for empirical studies on property development and developers. It is important to note that the theoretical underpinnings of these studies are also closely aligned with this research.

Methodologically there is some cross over in the design of this case study and those contained in Table 4.4. For example, using an entire city as the case (Adams, Baum and Macgregor, 1988; Alfasi & Fabian, 2008; Charney, 2007; Coiacetto, 2000b; Varna, Adams and Docherty, 2020), analysing development market structure (Coiacetto, 2000; Charney, 2003; Varna, Adams and Docherty, 2020), and examining a number of developers and their projects to examine diversity (Coiacetto, 2000; Charney, 2007). This research adds to this body of work and offers new insights. This research combines socio-cultural and psychological perspectives into the research questions and brings decision-making into a sharper focus. This represents a novel conceptual approach to exploring property developers and development. Reproduction of method and approach in research is a vital component for validating findings and building an empirically grounded understanding of theory and research (Bryman, 2016; Yin, 2018).

Though these studies are based on the property developer and development in general, what this table also reveals are the complexity of the issues and the richness of the data that results from this type of research design and theoretical perspective. The case study method enables deep analysis of complex real-life issues that face property developers. In addition, it is also increasingly being used in different locations internationally.

Table 4. 4 Property developer, development - a selection of case study research

Source, authors	Case Study Location	Research question	Research Findings
Adams, Baum and Macgregor, 1988	Inner City Manchester, UK	Land availability and constraints to supply.	Constraints to supply considered were: ownership, planning, physical site and price. Though planning did affect land availability, the most significant constraint to supply was passive landowners' attitude to disposal price. Public sector policies have a bearing on price.
Healey, 1992	Tyneside, UK	Model of the property development process	Development of an influential institutional model of the property development process.
Coiacetto, 2000	Two rural east Australian towns	Diversity of perspectives, actions and strategies of developers.	Two types of developers, one narrower, more local, and less exclusive the other more worldly, assertive, self-assured and less restrained and elitist.
Charney, 2007	Toronto, Canada	Office market segmentation	Property developers' choice of location for their office developments deeply affected by local characteristics place-specific environment.
Alfasi & Fabian, 2008	Tel Aviv, Israel	Developers and formation of local development policy	Identification of a type of developer (ideological) and examination of their behaviour regarding policy development.
Henneberry & Parris, 2013	Post-industrial city in north of England.	Interrogation of institutional context of single property development.	Property developments are embedded in local institutional contexts. Multi-actor orientated research.
Varna, Adams and Docherty, 2020	Inverness, Scotland	Development networks and urban growth in small cities	Development networks in small cities are tightly bounded and members agreed on who could access this network that was characterised by rules, cultural contexts that helped to build trusting relationships.

What these studies and the literature examined in Chapter 2 reveals is that the line between context and the real-life experiences of the actors in the process are known to be

> "dynamic, deeply contextual and contingent both on the particular aims and objectives of development actors, and on a shifting market framework which may enable or constrain development strategies." (Guy & Henneberry, 2000: 2413)

By exploring property developer's decision-making processes in this way, a deeper understanding can be gained in terms of how a particular local development market is "reflective of its own routines, procedures, distinctive relations, social culture, and other institutions" (Adams & Tiesdell, 2010: 194).

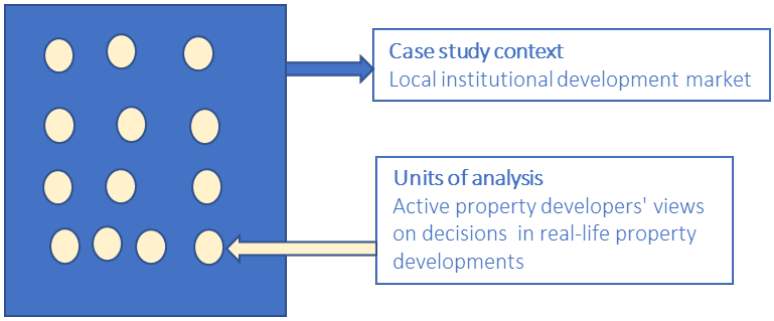
What follows is a detailed account and rationale for the methodological structure of this case study.

4.3.1 Case selection and design

A common criticism of case study research is that there are very few guiding principles in their design (Meyer, 2001; Yin, 2018). The lack of a formulaic recipe for 'the case study' can be seen as both a positive and a negative aspect of the approach. It affords a great deal of flexibility and allows for tailor-made examinations but the risks include weak designs so a great deal of importance has been placed on the integrity of the design. These have been guiding principles in the design of the case study. The two important aspects of using a case study that were first considered were, structure and design.

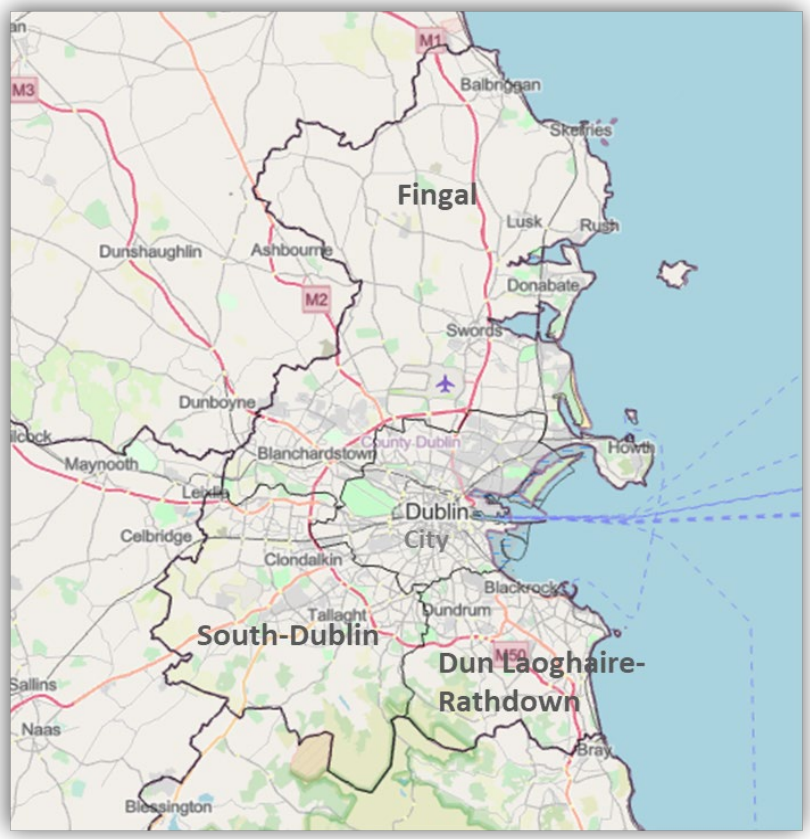
Yin (2018) outlines the rationale for choosing a single or multiple approach to case study design. The complexity arises when consideration is given to the single or multiple case studies and the single unit or multiple unit analysis. In Yin's outlines how, each unit of analysis has a context. The case study can be either *single case single context* or *multiple case, multiple contexts*. (Yin, 2018:49). This case study was designed as a single context and multiple units of analysis. The case study has a timeframe to allow for an examination of a set of related development decisions. This accommodates change in the institutional settings and time that it takes to carry out a development. This study seeks to explore a variation in approaches to behaviour and decision-making which is facilitated by a series of embedded units of analysis. Each developer and the development decisions are embedded in same institutional contexts. To gain insight into differences and similarities a number of developers and their decisions were included in the study. Similarly, the case study approach adopted here can be described as a multiple unit embedded case study. This is graphically represented in Fig 4 -2 below.

Fig. 4-2 Case study design – single case multiple units of analysis



The single case study city context is similar to the studies outlined on Table 4.4. Attention is now paid to the specific boundaries for the case study context. This involves rationalising the choices made over the location and timeframe for the context. Dublin was selected as the case study city. This area of Dublin is defined as Dublin City, Dun Laoghaire-Rathdown, Fingal and South Dublin.

Fig. 4-3 Dublin - four local authorities



Source: Map data licenced under ESRI, base map OpenStreetMap, Administrative Areas OSi National statutory boundaries.

The exact boundary to the case study area which encompasses both city and suburbs, is also known as Dublin, is illustrated in the above map. Dublin is the capital city of Ireland and is located on the east of the country. The planning system is administered by local authorities (City and County Councils). In Ireland there is a total of 31 local authorities. Dublin is divided into four separate planning authorities: Fingal County Council (north), Dublin City Council (east), Dun Laoghaire County Council (south-east) and Dublin South County Council (south). Dublin was chosen as the case study city for many reasons. The following table outlines a rationale for this choice.

Table 4. 5 Dublin development market - a case study city

Selection Criteria	Rationale
City size and importance	○ Medium-sized city ○ CSO (Central Statistics Office) Population estimates for Dublin in 2020: 1.4m[22]. Dublin, the capital city accounts for a disproportionate share of the economic performance of Ireland based "on growth in property development, service industries and the city's disproportionate attractiveness to foreign direct investment" (Moore-Cherry & Tomaney, 2019:369)
Development market activity	○ Since the 1960s the development market in Dublin has been growing in importance. ○ MacLaran, (2010) noted the significance in growth in output of office developments in the years leading up to 2010. A number of studies have been carried out that capture the development market in Dublin, which provides a good historic base for this research.
Number of developers	○ A significant number of property developers active in the market.
Development market datasets	○ A number of databases available for analysis of development market. Local authority building control management system, National Planning Application Database (Department of Housing, Planning and Local Government) and private sector information provider for construction industry, Construction Information Services.
Research activity	○ There is very little developer orientated research focussing on decision-making and behaviour when compared with other comparable cities.
Proximity and access to information	○ Practical benefits of location of researcher that is based in the case study city.

[22] The last census of Ireland was held in 2016. The next one was due in 2021 but postponed due to the Covid-19 pandemic. A 2020 estimate is provided here as the reference period for this predates the effects of the pandemic.

Schramm suggests that one of the benefits of a case study design is that it allows for a "sweep of time" to be built into the design of the research (Schramm, 1971:8). This research required a significant time period for two main reasons. Firstly, to incorporate the temporal nature of the property development process and secondly, to afford the widest scope to allow participants to recount their attitudes to shifting development market contexts. The timeframe chosen was the decade from 2010 to 2020.

This decade was particularly useful for several important reasons. First, in the aftermath of the GFC (2008), there was an insignificant amount of property development in Dublin. The second half of the decade was characterised by a growth in supply. Moreover, changes in the institutional rules surrounding planning and funding of property development considerably altered the context during this period.

4.3.2 Methods and data sources

The case study method allows for a diverse source of data to be woven into the analysis. There were two categories of data sources that are brought into this study. These include: the information that informs the context to development over the period and the data sources for the units of analysis. The main elements of the development market context were bounded by the time and place specific institutional arrangements. Specific data that that were deemed necessary to understand this are included in the table below.

Table 4. 6 Local development market - contextual sources and coverage

Network component	Information sources	Coverage
Public-sector Planning rules and regulations and conventions	Legislation, ministerial guidelines, development plans, academic texts and journals.	Leading up to and focusing on 2010-2020
Private-sector Development funding market, structure and conventions	Newspaper articles, academic journals, government reports	Leading up to and during 2010-2020
Development market, activity, actors, size location of developments over time	Quantitative information of developments in Dublin.	Onsite developments over 10 years 2010-2020

The question of obtaining quantitative information on the structure of a local development market is complex. Whilst it is relatively easy to obtain data sources for the funding and planning context that frames property development, it is more challenging to capture the nature of the property development process. Nonetheless, a number of data sources were investigated to ascertain if this could be achieved. Table 4.7 below discusses the available sources.

Table 4. 7 Development information sources in Ireland - 2020

Provider	Description and Critique
Building Control Management System (BCMS) ***Local Government***	○ New rules introduced in 2014 provided for online building control administration. At the same time the number of Building Control Authorities was reduced from 34 to 31. ○ The BCMS contains development description (floor area etc.) as well as information on planning permission, builders and details of works to be carried out. *The timeliness, quality and access to this information was not appropriate for this study. It may prove useful for future studies.*
National Planning Application Database (NPAD) ***Department of Housing, Planning and Local Government***	○ The NPAD is an open-data source with information of planning applications received since 2010. The CSO have highlighted some issues with consistency and validity of the data provided as it was not developed for statistical purposes. ○ Creation of database was not possible from this dataset and quality of data is questionable. *Data provided allows analysis graphically and is not suitable for statistical and timeseries analysis. Captures planning applications, not those that progress to onsite development.*
Construction Information Services ***Private Sector***	○ Private sector provider of information. This is an online construction database which contains real time information on construction projects. Contains development, planning application, and planning applicant data. ○ Information can be queried and created into a database. *Selected as it covers the entire period 2010 – 2020, provides all development details, and allows for timeseries data analysis.*

Source: Summarised from Casey et al. 2019

The CIS (Construction Information Services) database was selected for a number of important reasons. First, this database has the capacity to capture property developments

that progress to 'onsite'. This allows for an analysis of actual developments as opposed to those that achieve planning permission only. The information contained in this database is derived from planning applications of all developments in Ireland (32 counties). Included in this are the applicants details which is either the property developer or owner-occupier. Once this was chosen, the design of the database parameters ensued. In conjunction with the research department of CIS a database of property developments in the 4 local authorities in Dublin from 1st January 2010 to 31st December 2019 was developed using the following parameters:

Table 4. 8 Dublin development market database - criteria and parameters

Database Criteria	Parameters for database
Start – End Date	01 December 2010 – 31 December 2019
Location	Dublin City, Dun Laoghaire Rathdown, Fingal, South Dublin
Sector	Residential, Offices, Hotels, Restaurants, Industrial and Student Accommodation
Contract Stage	Onsite
Value (project cost)	+ €1,000,000
Promoter (Developer) Details	Yes

To review the specific details that were obtained for every development see Appendix 3. The database was created in an MS Excel file which enabled statistical analysis using pivot tables. At the project's outset, a few crucial decisions were made to enable an analysis of different sectors. Whether developers switched from one sector to another at any stage was considered significant. In addition, projects under €1m were excluded from the dataset. MS Excel pivot table tool allows large dataset to be analysed easily so as to uncover patterns and trends in the dataset.

Table 4. 9 All private developments - Dublin 2010 - 2020

Local Authority	No. of projects	Floor area[23] m^2	Residential Units[24]
Dublin City Council	353	2,826,405	9915
Dun-Laoghaire Rathdown County Council	135	1,127,237	7663
Fingal County Council	172	1,301,484	9611
South Dublin County Council	107	908,033	7201
Total	**767**	**6,163,159**	**34,390**

Source: Own analysis CIS database, developments that went 'onsite' were privately funded and commercial as at the information.

The table above gives a bird's eye view of the extent of private development in Dublin over the decade. This database was used as a data source to describe the structure of the development market in Dublin over the period. The results are contained in Chapter 5, Section 5.4).

4.3.3 Selection and classification of interviewees

In addition to being able to describe the structure of the development market, it was envisaged that this database could also be used to invite developers to participate in the study. Though sampling techniques in qualitative research are often criticised, they remain the foundations of the reliability and dependability of the research findings. (Bryman, 2016). Initially, the approach taken was purposive sampling as it would ensure a good deal of diversity in the sample and that they would relate strategically to the research questions posed. Unfortunately, it was impossible to query the database, so a selection of developers could be targeted in this way. This was because the information in the database lacked sufficient detail about the length of time that a developer operated in the development market.

Nonetheless, initially typical case sampling occurred by interrogating the database, reviewing the sequence of events for different developments and contacting a selection of developers. This occurred over a period of 3 months where 45 different developers were contacted. This took the form of an introductory email with a follow up phone call. Following a period of emailing sending and follow up phone calls, this strategy resulted in a small sample of property developers (3), who were interested in taking part and were

[23] Floor area includes residential units.
[24] Residential units count houses, apartments but not student bed spaces or hotel rooms.

very interested in the research. A process of snowball sampling took place where each developer recommended another. This proved highly successful as those interested developers recommended other developers who they considered would be interested in taking part in the research. This technique has been successfully used in a lot of the urban development, planning and investment literature (Fox-Rogers & Murphy, 2014; Henneberry & Roberts, 2008; Lennon & Waldron, 2019; Moore-Cherry & Tomaney, 2019; Rydin, 2016; Varna, Adams and Docherty, 2020). Finally, 13 property developers agreed to participate in this study.

The conceptual framework developed in Chapter 3 stresses the importance of experience. According to this research, experience and learning are chunked into mental images that can be retrieved when a situation is recognised. Experienced responses to domain-specific situations can be distinguished from novice responses (Salas, Rosen and Diazgranados, 2010). Experienced developers for this research are defined as those who operated as developers in at least two development cycles. If the period under study is considered one development cycle, developers who began developing post-2010 are classified as novices. Those developers that acted as developers in the years leading up to and after 2010 are considered experienced. A profile of the participants in the study is contained in Table 4.10 on the next page.

Table 4. 10 Participant profile - 13 property developers

	Expert/Novice	Area Developed Sq.M 2010 - 2020	% of total developments in study	% of total developed in Dublin
PD01	Novice	8,055.30	0.99%	0.13%
PD02	Expert	42786.00	5.25%	0.69%
PD03	Expert	20,001.00	2.45%	0.32%
PD04	Expert	48,707.40	5.98%	0.79%
PD05	Novice	18,590.00	2.28%	0.30%
PD06	Expert	21,244.00	2.61%	0.34%
PD07	Expert	8,119.50	1.00%	0.13%
PD08	Expert	62,760.00	7.70%	1.02%
PD09	Expert	6,325.00	0.78%	0.10%
PD10	Novice	126,347.60	15.50%	2.05%
PD11	Expert	152,988.68	18.77%	2.48%
PD12	Expert	82,277.80	10.10%	1.33%
PD13	Expert	216,831.00	26.60%	3.52%
Total	Total area	815,033.28		
Total (private) Area Developed		6,163,158.88	100.00%	13%

Source: Development database onsite 2010 to 2020

The table above represents an overview of the development output for the participants to this research. Ideally a more detailed account of each developer would be provided in an appendix to this research. This was not considered possible as detailed information may allow for identification of each developer.

4.3.4 Qualitative data collection

The primary data sources for this research are the opinions and attitudes of the private property developers that operated in the Dublin development market during the decade. Local development market information provided a context to the decision-making. However, the interplay between the sociological and psychological aspects of how decisions were made could only be explored by asking questions and talking to property developers about their development projects.

The ideal form for this to take place was semi-structured interviews where the basic structure of the interview revolved around a specific real-life property development. In so far as was possible, a specific development was agreed in advance so that some desk-based research could take place. Nonetheless, sometimes the discussion ranged over a few of

development projects. An interview guide was prepared and is contained in Appendix 1. This guide ensured consistency of approach for each interview participant. However, it also allowed for flexibility to ensure that the interview could remain open and 'flow' to maximise the detailed information from each participant. A pilot interview took place with a colleague who worked in the development industry was discussed. This was completed so the appropriateness and sequencing of each interview question could be assessed.

Moreover, this also provided helpful practice in the qualitative interviewing technique and use of an audio device. This resulted in a change in the ordering of the questions and how the questioning took place. In the final analysis, a greater emphasis on open-ended questions yielded more insightful views on essential questions. In addition, it became clear that there would be a wide variety of development decisions, so a clear focus would have to be maintained on the critical decisions within the development process.

It is worth mentioning that the interview process began in July 2019, 8 months before Covid-19 restrictions took effect. This had a significant bearing on the extent of data collected for this research, mainly because this research was conducted on a part-time basis. Face-to-face interviews were restricted from March 2020, and ethical approval had to be obtained again to allow online interviews. Irrespective of whether restrictions were put on face-to-face interviews, developers that were previously in email discussions ceased all contact once the full scale of the Covid-19 pandemic was realised. Ten interviews were conducted before the restrictions, and three final interviews were conducted following amendments to the ethical approval to cater for online interviews.

Once agreement to participate in the research was obtained each participant was sent a 'Participant Information Sheet'. (Appendix 2) The researcher has the original copies of these as per University of Glasgow Guidelines. Every participant to this study also agreed, in principle, to discuss the details of one of their developments that was onsite between 2010-2020. The developments were agreed prior to each interview so that development specific information could be sourced in advance of the interview and attention paid to the specific contextual factors that might affect that case. A desk-based study drawn largely from newspaper articles, planning documents available on local authority website and the CIS database and property market data was used to test the credibility of the information provided. The intention here was to immerse each decision-maker in the "rich ambiguity" of the complexity, uncertainty and quality of information available for each development

event. (Flyvbjerg, 2006: 237). The idea was that by focussing on the detailed real-life aspects of the decisions the true decision-making process would be revealed.

On reflection, this had mixed results. One of the main drawbacks to qualitative interviews is the question of buy-in from each participant. An interesting outcome of this research was the variability and richness of information given by each participant. Whereas some developers went to great lengths to provide backup information and exact details of how events occurred, other developers were less forthcoming. They seemed less trusting of the research process.

It was originally intended that data on decision-making would be obtained from two in-depth semi-structured interviews with each participant. The reasons for this were to familiarise interviewer with the participant so that trust and a closer relationship could be developed. This would elicit more nuanced and in-depth information. However, there was very little appetite from each developer to meet on two separate occasions. A single semi-structured interview process was then followed. On reflection this did not have an overly negative impact on the data collected. The majority of developers interviewed were very willing to give their opinions and, in some cases, a significant amount of detailed information on development projects.

This section described the study area and how subjects were selected. In addition, it outlined how the data to be analysed was be collected. The next section deals with the quality and rigour of the approach taken and to what extent we can generalise about the findings.

4.3.5 Data analysis

Once the data collection was complete, the case study material had to be assembled and analysed. The case study bound the context, and the units of analysis were developers' opinions and attitudes as transcribed interview data. The challenge was to analyse this data meaningfully, and the objective was to find evidence of similarities and differences between the concepts and theories and data. Like many qualitative data researchers, the analyses were ongoing and iterative as the data was collected (Gioia et al., 2013). Several approaches to qualitative data analysis were considered before analysing the qualitative data. A summary of the different methods and why thematic analysis was chosen is in Table 4.11 on the next page.

Table 4. 11Qualitative data analysis selection process

Method Considered	Critique	Decision
Grounded Theory (GT) *Method that discovers theory through the analysis of data – from the ground up.*	Purely inductive approach that requires researcher to re-enter field to address questions arising from initial data analysis. .	Not suitable due to purely inductive nature of the analysis. The requirement to re-enter field to achieve data saturation was not considered possible. Objective of study was not to develop theory.
Content Analysis (CA) *Approach that focuses on analysis of texts to develop categories from codes (often a single word). The focus is then on counting at a micro level the number of instances it occurs.*	There are two reasons why this method was not considered useful. First is that the data for this project was not found mainly in documents. Secondly the contextual information, and how the answer is sequenced with other information, is important in this research.	Nature of the data does not facilitate CA. Fits with a quantitative approach to qualitative data. Processual nature of development projects raises the importance of context and how each term is embedded in the rest of the data. Themes in this project are derived from conceptual framework not quantified from word units.
Narrative Analysis (NA) *Uses stories told from texts, journals etc. interviews and life experiences to understand how meaning is created.*	NA does enable consideration of context to be built into analysis. The researcher has to see the story teller tell the story in their working context.	This method of analysis has many benefits for uncovering habits. The fact that performance and observation were part of the analysis meant that this was not considered as a method of analysing the interview data.
Thematic Analysis (TA) *Though the concept of themes is common to a lot of QD analysis approaches.*	One of the most common approaches, yet it does not have a cluster of approaches associated with it such as has been described with GT, CA and NA. It is flexible, themes can be developed from data or theoretically driven.	Developing themes from a conceptual framework proved beneficial for directing the analysis of this research. Capable of integrating data driven codes and theory driven themes. Capable of iterative and reflexive analytical methods

Summarised from: Silverman, 2014; Bryman, 2016

Once the method was chosen, the formal process of analysing the data began. This entailed the creation of a bespoke database for the project using Computer Assisted Qualitative Data Analysis Software (CAQDAS). The software used was Nvivo (version 12) which is an advanced, commonly used, version of code and retrieve software (Bryman, 2016).

There is an ongoing debate about the usefulness of this type of tool for analysing qualitative software. Some emphasise that it is a tool (Yin, 2018) for analysis and nothing more. While this is very sophisticated software that can incorporate many different types of media files (for example, recordings and videos), this study used it to analyse interview transcripts. It facilitated coding and the categorisation and analysis of all the transcribed information relating to the 13 units of analysis which incorporated interviews transcripts and the development project details. The interview transcripts extended to over 36,000 words (122 pages at 300 words per page). Whilst the actual analysis was done by the programme, it was a very useful tool for physically coding the information, displaying, combining, and ordering the data.

Faced with an array of diverse and complex set of information sources, thematic analysis was used as a way of analysing the data due to its inherent flexibility. Added to this was the fact that this method is frequently used within other forms of qualitative analysis approaches such as the case study. (Boyatzis, 1998; Braun and Clarke, 2006). The core approach to this way of analysing qualitative data is that themes emerge as being important to the nature of the enquiry. It is a form of pattern recognition within the data where the themes become the categories for analysis. The themes within thematic analysis can be either deduced from the conceptual framework or data driven inductively from the case study material (Boyatzis, 1998; Braun and Clarke, 2006; Mills et al., 2012). The method chosen for this research was a hybrid that incorporated the deductive set of a priori themes from the conceptual framework outlined in Section 4.2. while allowing for the themes to emerge direct from the data using inductive coding. A set questions were devised that directed the analysis in each research theme.

The approach to coding adopted here reflects the approach outlined by Bazeley, (2013) and moved through two major stages. First an initial stage of identifying and labelling, this was defined by the themes developed from the conceptual framework and outlined in Section 4.2. A second and more analytical and inductive coding then ensues that involves refining and interpreting codes to develop more "analytical clusters" (Bazeley, 2013: 126) within the research themes. This involves seeing and interpreting a code that captures the "qualitative richness" of the concept being abstracted and these were driven by the research questions. The theme categorises the patterns of information that organises observations and interprets aspects of decision-making. The research questions directed the analytical clusters. Decision-making at different points in the development process could

be analysed and dissected to assess where the external environment was leading the decision or where internally driven processes gained prominence.

A codebook was designed, using the research questions and developing codes within each sub-theme. Though a multi-staged linear process is described below, in reality, the process was iterative and reflexive. It was characterised by reading, re-reading, reflecting, reorganising and reading. At the same time, attention had to be paid to developing a narrative that reflected a diversity of views from the developer's perspective. This was developed from their own experiences and reflected their attitudes regarding real-life property development decisions taken during the decade from 2010 in Dublin. Once all the data to be used in the analysis is brought together the stages of data analysis proceeded, this is outlined in Table 4.12 on the next page.

Table 4. 12 Thematic analysis - stages of analysis

Stages of Development	
Develop code manual	Developed a priori and based on conceptual framework. Six broad code categories were formed: rules and conventions, relationships, networks, calculations, emotion and feeling, heuristics
Testing reliability of codes	An essential step to ensure that the code is capable of being used.
Summarising data and theme matching	This is a first step in the process of analysing the data, but it can only be done when the code is developed. This involves deep and close reading and re-reading and paraphrasing information. For this process, immersion in the data is essential. This involves repeated reading (searching for meaning and considering in the context of the themes).
Apply template of codes to data	This step can only be applied to the textual data used. The transcripts of the interviews, the development details and the contextual data were entered into NVivo. The codes were entered as nodes in the programme and a matching process ensued with sections of text being matched to data, documentary and interview transcripts.
Connecting Codes	This process involved discovery of themes in the coded data. As coding of the data began, there was a clustering of data within each of the themes. It was at this point difference and similarities were grouped and ordered. For example, differences emerged between the attitudes of experienced and novice developers.
Legitimating clustered codes into themes	Final stage involves a process of further clustering the codes that have already been grouped together and linking into the themes and research questions

Source: Adapted from Boyatzis, 1998; Braun & Clarke, 2006

Attention was paid to Boyatzis, (1998) when codes were being developed. Three aspects of coding are highlighted as being important: the code name, the definition of the code and a description of how and when it occurs.

Table 4. 13 Sample code creation and testing - relationships

Code 1	
Label	*Formal relationship*
Definition	Space and time spent between developer and professional in public or private sector where relationship is based on reciprocal trust developed over time. Stress on their capacity to carry out their role.
Description	Relations between people that allow an opportunity to interact (verbally and by correspondence) that results in behaviour. Evidence in interview transcripts, policy documents and documentary evidence.
Example	*"we try to do what they say, we don't push it" PD03*
Code 2	
Label	*Informal relationship*
Definition	Space and time spent between developer and professional where relationship is not based on reciprocal trust and is short-term and not deep.
Description	Relations between people that allow an opportunity to interact (verbally and by correspondence) that results in behaviour. Evidence in interview transcripts, policy documents and documentary evidence.
Example	*"International investors just want to know – can we pour money into it" PD10*
Code 3	
Label	*Personal relationship*
Definition	Space and time spent between developer and personal contact built on long term trust.
Description	Relations between people perhaps family, that allow an opportunity to interact (verbally) that results in behaviour. Evidence from interview transcripts.
	"*That equity is the first to be paid back and always paid back"* PD02

This section outlined the steps that were involved in applying thematic analysis to the data for this research. The process allowed for consistency and a systematic approach to the analysis of a diverse dataset.

4.4 Ethical considerations and reflections

The importance of ethical considerations for social research is often highlighted where participants have come to some harm following the publication of the research. However, it is essential that all social researchers consider ethical responsibilities at the outset of their work for another important reason, there will be no willing subjects if ethics are compromised (Israel and Hay, 2004). It is for this reason that research participants are offered privacy, confidentiality and anonymity when taking part in a research project.

During the design of the research consideration was given to ethical principles in social research that rest upon doing no harm to the participants. The key elements of not doing any harm rests upon informed consent, privacy and the issue of deception (Bryman, 2016). These foundations of ethics were considered when inviting participants to partake in this research. Firstly, a clear outline of the areas of the research to be undertaken was outlined in the introductory email sent to interviewees. Once a participant agreed to the research, this was followed up with a more detailed, plain language statement of the nature of the research. Before the interviews took place, consent forms were signed and permission to record the interviews was obtained. What is outlined here are the procedures for ethical approval (Guillemin and Gillam, 2004). These details were all put forward for the ethical approval for this project. This was granted following a submission of the outline of the research strategy to the College of Social Science Ethics Committee.

Having completed the research and drawing out some reflections for future researchers, perhaps it is not necessary to offer complete confidentiality at the outset of the research. It transpired that confidentiality was not essential for all interviewees, particularly the more experienced independent private developers. Counterbalancing this is the fact that had it not been offered in the opening negotiations, perhaps it would have limited the number of participants and the richness of the information offered. Nonetheless, had it been possible to obtain consent without confidentiality perhaps the extent of the locale for this study could have been reduced to a single local authority area.

4.5 Conclusion

This chapter has laid out and rationalised the methodological approach taken in this research. Consideration was given to the practical issues in the research such as how to gain an understanding of how different types of developers made decisions in Dublin over

the decade. Several difficulties had to be overcome during this process, not least identifying developers and gaining access.

Whilst the case study provided an advantageous way of incorporating contextual data into participant opinions, the breadth of the information posed a challenge. Nonetheless, the interview experience directed attention to how different developers embedded themselves into that context. In hindsight limiting the analysis to a specific sector or a smaller locale may have yielded a more in-depth response. However, there were ethical and practical challenges to a proposal of this nature.

The following four chapters contain the substance of the findings from this research. Chapter 5 contains the necessary contextual detail for a deeper understanding of the following results. Chapters 6 to 8 contain the findings of the research. The conclusions are contained in the final chapter.

5.1 Introduction

> "a network of rules, conventions, and relationships which collectively represent the system through which property is used and traded" (Keogh and D'Arcy, 1999:2408)

In the quotation above, Keogh and D'Arcy, (1999) draw attention to the institutional characteristics of the wider property market. This research is grounded in these ideas where the conceptual framework stresses the importance of local, time specific, contextual conditions for shaping development process (Beauregard, 2005; Charney, 2007; Henneberry and Parris, 2013; Varna, Adams and Docherty, 2020).

As a result, the aim of this chapter is to articulate the local institutional framework for the development market in Dublin in the decade to 2020. By doing this, three important aspects are brought to light that frame the findings in the chapters that follow. First, this chapter foregrounds where the existing and shifting institutional context either enhances or lessens uncertainty in the process. This is an important aspect of this research that is embedded in the research questions. Secondly it seeks to uncover how the prevailing institutional setting influenced the culture and relations between development actors (Leffers and Wekerle, 2020). For this period, the focus is on public sector planners and private sector development funders. Finally, it traces the pattern of development over the decade highlighting the characteristics and diversity of local property developers.

5.2 Planning for development – distant local planning regime

Before a discussion of the institutional framework for planning during the decade to 2020 can occur, a brief context to the decade is necessary. This is important as the seeds of what occurred over the decade were sown in the years leading up to it. The conceptual framework for this research draws a distinction between public and private sector relations and highlights that, where mutual interest and shared objectives can be articulated, a higher degree of embeddedness ensues (Adams and Tiesdell, 2010; Henneberry and Parris, 2013). This section brings the local institutional framework into focus and illustrates how this contrived to limit social interaction between private developers and local planning executives. This is achieved through an examination of the expansion of powers of the national appeals board, the weakening of local planning departments and increasing power of central government to intervene in, and promote, private sector development. Before this, a brief background to the planning system highlights areas of uncertainty for property developers.

5.2.1 Local planning in Dublin – areas of uncertainty

The planning system was introduced to Ireland in the 1960s and as a result it shares in many of the features of the UK planning system (Geraint, 2002; Grist, 2012a). The similarity does not end there as it is accepted that both Ireland and UK have relatively weak local government (Moore-Cherry and Tomaney, 2019). Though crucial changes to the Irish planning system occurred from 2000 onwards, the similarities between the UK and Ireland are widely acknowledged (Grist, 2012a; Cave and Semple, 2018).

Nonetheless, a crucial distinguishing feature of the Irish system is the right of a third party to appeal a planning decision. Appeals to local authority planning decisions can be made by the applicant (first party) and (or) a third party[25]. Appeals are made to the independent appeals board - An Bord Pleanála,[26] known colloquially as 'the Board'. The remit of the Board has expanded considerably since the 1970s and this section illustrates how the Board became more powerful over the decade to 2020. Whilst the decisions of the Board are final, both the decision of local authorities and the Board are open to a judicial review. This is "how the legality of an administrative action can be tested before the High Court".

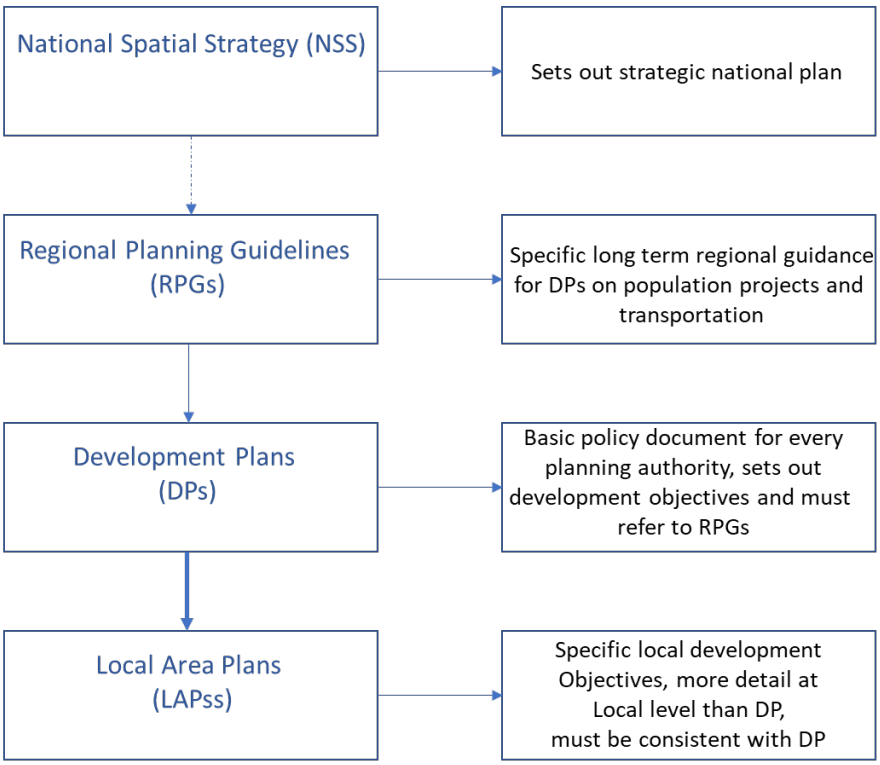
[25] Third party appeals are only permitted where a submission or observation at the planning stage is made to the local planning authority.

[26] An Bord Pleanála is a statutory body that consists of a chairperson appointed by the Government, for a term of seven years from a shortlist put forward by a selection committee that is chaired by the President of the High Court. The members of the board are appointed from nominations received from various professional, cultural and commercial organisations.

(Grist, 2012a: 62). Appendix 4 summarises the key planning-related legislative changes up to 2010.

The Irish planning system is easily described as a set of coordinated plans from national to local level. By 2010 the changes that were introduced resulted in a loss of regional power. More specifically this involves strategic national level, county level, and local level plans. Development guidelines were designed to coordinate development plans within regions.

Fig. 5-1 Hierarch of Irish planning system to 2010



Source: Summarised from Grist, 2012a;

Uncertainty at local level

By 2010, local area plans (LAPs) and development plans (DPs) were the foundations of the planning framework in Dublin. The first national strategic plan, called the National Spatial Strategy (NSS), began in 2002 and was due to end in 2020. This had little relevance to development in Dublin over the period and the achievement of its objectives "could at best be described as sporadic" (Grist, 2012b: 12). This was because population growth had not

taken place in the cities and towns as planned. Though there were eight regional planning authorities established, they did not play a significant role in the years that followed and these authorities were eventually dissolved. In their place 3 regional assemblies were established to support the implementation of national plans. Fig. 5-1 on the previous page illustrates the hierarchy of the planning framework up to 2010. It sets out the main function of each level in the hierarchy.

Like the UK, planning permission is required before development[27] begins. Crucially, this can only be obtained by the owner of the property or an agent of the owner. In Ireland, the manager of the local authority has the responsibility for deciding on applications while local planning executives make recommendations to the local authority manager. For larger local authorities like Dublin City Council, this is sometimes delegated to the director of services. Nonetheless, local planning officials make recommendations on specific planning applications but they do not make the final planning grant at local authority level.

When assessing applications, planners must consider the relevant plans, guidelines, and policies (Grist, 2012). It is not possible for developers to put pressure on politicians to directly influence the outcome of specific planning applications. Development plans are the policy document that planners refer to when assessing planning applications. There is a degree of certainty provided in the mandatory objectives such as land use zoning however, there is significant amount of uncertainty built in to the discretionary nature of other objectives such as development management. In addition, development plan objectives are set at the beginning of the development plan period and remain in place for the lifetime of the plan (6 years). See appendix 4 for a detailed description of this process.

Development control and management objectives include building layout, density, height, floor area, building lines and associated parking. These are discretionary and vary across local authorities. Additionally, they can become outdated when new guidelines are introduced. Building control objectives have a significant bearing on the value of individual sites. A significant measure used to control development is commonly known as the plot ratio also known as floor area ratio. The indicative plot ratios contained in the

[27] Development is defined in Section 3 of the 2000 Act, there are two basic types of development 1) carrying out works (act or operation of construction, excavation, demolition, extension, alteration or repair renewal). 2) making material change of use. In most cases planning permission is required for all development however, certain types of development are *exempt* from planning permission. These include: minor developments (for example house extensions less than 40 sq.m.) and a local authority carrying out works in its own administrative area. See Section 4 (1) of the 2000 Act.

Development Plan are ordered according to the land-use zoning objectives (15 different zones in the City). What is important though is that they range significantly over the city and within each zone. Within each band, there is also a range of what can be applied to a specific site. For example, if specific zoning states that the indicative plot ratio is between 1:1.5 and 1:2, this can result in a range of developments where one that could have 3 stories and another that could have 5. This indicates that there is generally a low level of certainty built into the existing development control standards. This is a consistent feature of the Irish planning system. Attention is now turned to the way relations are shaped through changes and institutional structures in the Irish planning system.

The Irish government has increasingly relied on property markets to stimulate economic growth. This is evident in the changes that were made to the formal legislation and institutional structures that governed property investment and development. For example, during the 1990s a series of tax incentives were used by central government to stimulate urban regeneration. Local planning officials were not involved in the design of these and often felt side lined in the process (McGuirk, 2000). The incentives were initially perceived as a success but, in the end because they stimulated a significant amount of inner-city development, they were also a source of criticism. They created capacity problems in the planning system which resulted in piece-meal and poor-quality development. The incentives also remained in place well after development activity recovered (Williams, 2008). The Irish Government commissioned several reports in the late 1990s that recommended that the planning process be speeded up to assist with housing supply (MacCabe, 2003). The legislation was introduced that was designed to reduce constraints, which largely involved taking planning decisions away from local planning executives, which had the effect of distancing planners from other actors in the development process and reinforcing an ‘us and them’ mentality. The next section illustrates how the seeds for this approach were introduced in the 2000 Planning Act.

Shaping relations with local planners

The backdrop to the changes that were introduced with the 2000 Act was that the local planning executive in Dublin was considered to be “cumbersome and ineffective” (McGuirk, 2000:654). This was the view of local developers and central government and served to frame the cultural difference between important actors in the development process. In this case, central government was keen to move more towards an entrepreneurial approach to planning and local (McGuirk and MacLaran, 2001). Two

crucial changes were implemented with the introduction of the 2000 Planning Act, these were Strategic Development Zones, (SDZs) and the formal introduction of planner developer meetings. SDZs are similar to the UK's Simplified Planning Zones. Specific zones were identified and given three main objectives. Firstly, they were designed to fast-track the planning process. This was achieved through the creation of a specific planning scheme for the area where planning applications deemed to be consistent with the planning scheme, were automatically granted permission. Crucially, these decisions could not be subject to third party appeal. These factors increased the certainty in any development projects located in an SDZ. Secondly, they were supposed to draw private development to disadvantaged areas as a result of increased certainty in planning of the development. Thirdly, they were also conceived to deliver large-scale projects under one planning scheme. This was consistent with the general plan-led planning framework at the time. In their original conception, SDZs were designed for residential development. (Grist, 2004). Before 2010, there were three SDZs located in Dublin, two were located in South Dublin County Council (Adamstown and Clonburris) the third was in Fingal County Council (Hansfield).

To set up an SDZ, the relevant local authority is tasked with drafting a detailed planning scheme. This should be specific on areas where the development plan is not. These areas include building heights and road layouts and requires approval from the Board. The SDZ scheme itself can be appealed, but once in place, the rights to third-party appeals on specific applications do not exist. The 'fast tracking' of planning permission is a source of tension as speed and certainty in the planning process are achieved at the expense of the public's rights.

The introduction of this legislation continued the reorientation of the Irish planning system towards a more deregulated and entrepreneurial planning agenda. Under this approach market led development initiatives and public private partnerships are supported, and transfer responsibilities previously vested in the public sector to the private sector. The effect of this legislation was that national government gained increased powers to intervene in the planning process, while at the same time privileging private investors and developers (McGuirk and MacLaran, 2001; Fox-Rogers et al., 2011).

The roots of this power shift away from local planning to national government was brought to light by McGuirk (2000). She suggested that the property led regeneration initiatives that characterised property development in Dublin in the 1990s signalled the introduction

of a more entrepreneurial approach to planning. A public discourse around the obstructive, inefficient and essentially bureaucratic system that operated in the local planning departments provided the backdrop to the national government led tax incentives for property development that were introduced at the time. Prior to this, central government paid little attention to urban development (McGuirk 2000). During this period the local planning authority in Dublin city defined themselves as being "'hamstrung' by a system which was being ever-more centralised" (2000:654). Though McGuirk (2000) highlighted the potential for local government empowerment, ultimately the entrenched bureaucratic practices of local planning departments contributed to the "creeping enfeeblement" (Tickell and Peck, 1994) of local government planning departments.

The 2000 Act also ushered in formal pre-application consultations between planning applicants and planning officials. Fox-Rogers and Murphy (2014) interviewed 20 planners regarding these meetings and found that, the pre-application meetings were generally used to "iron out potential issues prior to the submission of an application" (2014:257). Nonetheless they also highlighted two important issues, the limited power of local authorities in Ireland to raise funding and the resultant power afforded to large-scale developers or investors in an area. Local authorities have two principal means of raising income, commercial rates and development levies and contributions. From their interviews, the respondents felt the development contributions that might result from a prospective development were informal factors that influenced "the attitude of local authority management towards prospective developments". (Fox-Rogers and Murphy, 2014:259). They suggest that large-scale developers therefore have considerable power in these negotiations. What is more important though is the fact that the planning decision ultimately rests with the local authority manager and not the local planning officials.

By 2010, there was a clear attempt to move to a more systematic co-ordinated plan led approach to planning in Ireland. Important changes such as the introduction of SDZs were seen to privilege development interests and at the same time, the decision-making powers of local planning executives were becoming increasingly weakened. Though on the face of it the introduction of planner developer pre-application meetings would seem to facilitate a greater degree of interaction, the decision-making power rests with the local authority manager. The planning framework for property development provides for areas of uncertainty at local level in the discretionary objectives, and a substantial amount of certainty in specific locations with the SDZ process. The scene is set for an era where

central government had a much greater role in the location, and type of development that occurred over the decade.

5.2.2 Centralising control - Dublin 2010 - 2020

From 2010 onwards, the Irish government continued to empower An Bord Pleanála to make decisions on planning applications at the expense of local planning departments. These changes were more relevant to urban areas. New areas were designated for strategic development purposes using the SDZ mechanism. Later in the decade, a series of planning guidelines and legislation became significant. Table 5.1 below outlines the relevant changes to the planning framework. These had a marked influence on property development in Dublin over the decade.

Table 5.1 Specific changes to the Irish planning framework 2010 - 2020

Description	Guidance/legislation	Details
Facilitating development in certain locations	Increase in the number of locations designated as SDZs in Dublin	Fast-tracking and reduced uncertainty in the planning process in certain locations in Dublin. See Table 5.2 below for further details.
	Strategic Housing Developments (SHDs) (2017)	The fast-tracking planning application process for all residential developments over 100 units and student accommodation over 200 units.
Facilitating residential sector	Guidelines for New Apartment Buildings (2018)	• Purpose Built Student Accommodation (PBSA) • Built to Rent Apartments (BTR) • Co-Living Residential
	Urban Development Building Heights Guidelines (2018)	Removed restriction to building height for developments in urban centres

Source: summarised from An Bord Pleanála, 2017; Department of Housing Planning and Local Government, 2018b, 2018a

Directing development to specific places

Several new SDZs were introduced in the four local authorities in Dublin, Table 5.2 below outlines the details and locations of the new SDZs. The most significant for this study are Cherrywood in Dun Laoghaire Rathdown and North Lotts and Grand Canal Docks ("Grand Canal Docks"). The other SDZs have little relevance for this research as one is designated for university development and the other SDZ came into force at the end of the period. The timing of the designation for Cherrywood and Grand Canal Docks are significant.

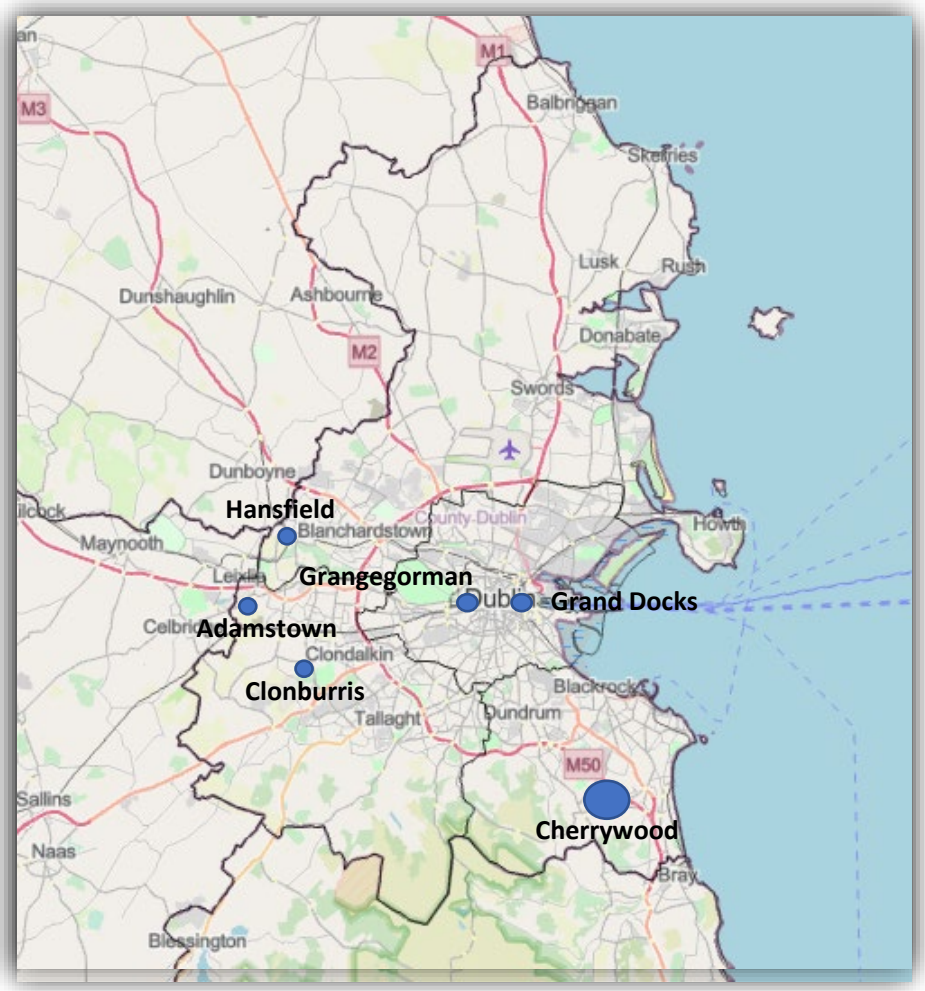
Table 5. 2 SDZs Dublin - 2000 - 2020

Local Authority	SDZ location	Date	Description
Dublin City	Grangegorman	**2010**	29 hectares for efficient development of University at Grange Gorman.
	Grand Canal Dock	**2012**	Planning scheme approved in 2014 for the urban regeneration of redundant Port areas. 66 hectares.
	Poolbeg West	**2017**	Planning scheme 2019 34 hectares mixed-use and residential and related infrastructure.
South Dublin	Clonburris	**2008**	Planning scheme approved in 2019
Dun Laoghaire-Rathdown	Cherrywood	**2010**	360 hectares 8km south of Dun Laoghaire town centre. Planning scheme approved in 2014, town centre, mixed-use and residential and infrastructural development.

Source: www.dublincity.ie, www.dlrcoco.ie, www.fingal.ie and www.sdcc.ie

Early in the decade, three new SDZs were designated in Dublin. Some of the planning schemes took time to develop due to the scale of the zones but by 2014 these were in place. A tension arose over whether SDZs were perceived as favourable conditions for the development and investment industry (Fox-Rogers et al., 2011) or efficient integrated planning tools for large scale housing. Construction industry lobby groups also criticised the SDZ process. These criticisms focused on the length and timeliness of the planning schemes, inflexibility of the schemes once approved and lack of buy-in by external stakeholder agencies (NESC, 2004). Despite these criticisms, the expansion of the SDZs meant that uncertainty at these locations could be significantly reduced thereby facilitating development. See Fig. 5-2 to locate the SDZs.

Fig. 5-2 Location of SDZs Dublin 2000 - 2020



Source: Map data licenced under ESRI, base map OpenStreetMap, Administrative Areas OSi National statutory boundaries

Directing development – residential investments

As a result of the reduced supply due to the Global Financial Crisis (GFC) and subsequent restructuring that occurred between 2008 and 2015, there was a well-publicised shortage in housing supply in Dublin during the decade. It was suggested that the SHD legislation was introduced to deal with "A shortage of residential accommodation as a result of a drop in home construction during the economic crisis ….which lead to rising house prices and rents and an increase in homelessness" (Cave and Semple, 2018:20). The more cynical view of this was that the SHD legislation ensured that developers, and particularly international development interests could bypass local planning authority's power (Lennon and Waldron, 2019). This provided a considerable degree of certainty in the development

process for property developers. The conceptual framework draws attention to the certainty and uncertainty that are embedded in the network of formal and informal rules and conventions in the development process. This legislation affected density and planning certainty which are major drivers of site value and was a major factor in housing supply in the following years, this is discussed in Section 5.4 when development supply is analysed.

There was increasing pressure politically to expedite the supply of housing as a result guidelines for new apartment design and building heights were introduced in 2018. Following on from this a range of new residential sub-sectors was created. Build-to-Rent (BTR),[28] Co-Living[29] and specific detailed regulations for purpose-built student accommodation (PBSA)[30] were introduced. These had a powerful accelerating and centralising effect on the development of Dublin city. The guidelines made small-scale housing developments or apartments for sale uneconomic in an urban context. This type of housing was only considered to be economically viable in suburban locations. In addition, the high-density development sectors such as co-living were so attractive that they had the effect of squeezing out other apartment schemes such as build to sell apartments. However, there was a lot of public and media outcry about co-living as a development sector which, given the favourable market conditions was gaining momentum. The new Minister for Housing later reversed the guidelines and banned all new co-living developments. He cited the following rationale for reversing the guidelines "Given the unprecedented nature of these developments I have concerns that the scale of the developments is moving away from the niche quantity of units the concept originally aimed for to a significantly larger role in the housing system." (Horgan-Jones, 2020)

SHD (Strategic Housing Development) legislation and regulations were introduced in 2016 and 2017[31] respectively. The newly introduced SHDs process was designed to be a temporary measure to “speed up the planning application process and accelerate larger housing and student accommodation proposals” (ABP, 2017:1) The planning application process for residential developments and student accommodation of scale was shortened. Under this legislation, the time for processing applications such as these was subject to a

[28] Build-To-Rent. This type of development had to be purpose-built for renting and is generally owned by institutional investors.
[29] Co-Living was introduced to short-term lets for renters.
[30] Purpose Built Student Accommodation.
[31] Planning and Development (Housing) and Residential Tenancies Act 2016, Planning and Development (Strategic Housing Development) Regulations 2017.

maximum time limit of 16 weeks to process. From 2017, planning applications for these types of developments would be 'fast tracked' to An Board Pleanála (ABP).

The planning scheme for the Docklands SDZ enabled increased densities at this strategic location. However, there was pressure to increase building heights across urban centres also. In line with the national planning framework and following a period of public consultancy, new guidelines for building heights for urban developments were introduced. Before this, building heights could be described as low rise, with the majority of building heights in Dublin city being 6 – 8 stories.

The new guidelines removed the height restrictions for developments in urban centres and take precedence over any "conflicting, policies and objectives of development plans, local area plans and strategic development zone planning schemes"(DoHPLG & RPS, 2018:4) Although the culture of taller buildings was beginning to get traction in certain areas, this represented a significant change for local authorities.

This section drew attention to the way that uncertainty in the development process was driven by existing and amended rules and conventions in the planning system. Attention was drawn to how the discretionary nature of some of the development objectives provide uncertainty at local level, at the same time changes were introduced that provided a significant amount of certainty. These were directed at specific locations and types of development. Crucially they represented a further weakening of local planning functions and strengthening of the role of central government in the development market. This enhanced the differences between the two and served to increase the distance between local planners and developers. More crucially it created a void where otherwise an opportunity for social interaction would exist.

The discussion now turns to the private sector development funding over the period. A focus is put on the less formal rules in this sector and dramatic events that occurred in the fall out of the GFC. Furthermore, areas of uncertainty and certainty are brought to the foreground to provide a backdrop to important development funding decisions over the decade.

5.3 The development finance framework – culture and relationships

Charney (2007) drew attention to two important factors that have to be in place before a developer can go ahead with a development: capital capability and social embeddedness into local development market networks. Capital capability was severely curtailed in the first few years of the decade to 2020 due to the fall out of the GFC in Ireland. This section uncovers the institutional setting for development finance over the decade to 2020.

The financial crisis in Ireland in 2008 was triggered by the GFC. Whilst both the GFC and the Irish banking crisis were related to property assets there were important differences. It was widely recognised that the Irish collapse was "home-made"(Regling and Watson, 2010: 5). Irish banks[32] were generally not exposed to the same risks as other international banking markets at the time. Whereas in other markets banks had become over reliant on securitised forms of property investment.[33] the problems of the Irish banks related to the extent of their reliance on a small number of Irish property developers. Crucially, what is uncovered here is how social and cultural factors played a significant role in releasing funding for development. This further supports the socio-cultural dimensions of the conceptual framework for this research.

This section is not concerned with the details of the economic collapse at the time. Nonetheless, it is worth pointing out some important lessons that were drawn from the research that reviewed the banking and property market that lead to this dramatic event. The aftermath of the collapse had important implications for the property market and because this was such a large component of the Irish economy, it was widely felt throughout the country. By 2010, land prices were considered to have fallen by 90% with house and apartments prices transacting at 60% of their pre-crisis values.(O'Callaghan *et al.*, 2015).

Social, cultural and emotional forces

There were three official inquiries (Regling and Watson, 2010; Honohan, 2010, Nyberg, 2011) into the collapse of the Irish banking system. The one undertaken by Regling and

[32] Before the crash the domestic banking sector had 6 main banks, these were, Allied Irish Bank plc (AIB), Bank of Ireland, Anglo Irish Bank, Irish Nationwide Building Society, Irish Life and Permanent and the Educational Building Society (EBS).
[33] Mortgage debt was securitised. This was done through the creation of mortgage-backed securities which were initiated locally but sold into global markets.

Watson[34] (2010) focused on the national and international policy contexts. This report highlighted the importance of the over concentration of lending to the commercial property

> "This was a threefold concentration. It featured loans to the property sector in general; loans to commercial property specifically; and within this latter group, development loans to interests associated with a limited number of key developers of commercial property. In this respect, Ireland stands out." (Regling and Watson, 2010: 31).

The conclusion was that a small number of property developers amassed a large amount of property-related debt and the main Irish banks were the source of this. At the time, bank lending was the normal funding mechanism for property development.

The conceptual framework for this study foregrounds the socio-cultural and psychological dimensions of decision-making in the development process. A number of influential reports (Regling and Watson, 2010; Nyberg, 2011; Lunn, 2013) that focussed on the Irish financial crisis provide support for this framework. They indicated that social processes and emotionally charged decision-making were key explanatory factors for the extent of the crisis in Ireland. For example, a considerable finding in the report carried out by Peter Nyberg[35], (2011) related to the flawed lending practices evident in many of the banks at the time. He outlined that in the case of two banks, Anglo Irish Bank and the Irish Nationwide Building Society, a significant aspect of achieving loan approval was based on the relationship between the lender and the loan applicant. This meant that credit approval was given as a result of the strength of the relationship with the borrower, not on the strength of cash flows of the project. Also, very few checks were carried out on the creditworthiness of the borrower. In Anglo Irish bank, there was a twin focus of relationship lending and high growth targets. This resulted in relaxed lending criteria and procedures when they should have been tightened. Describing the culture Nyberg notes:

> "Anglo was essentially a monoline bank focused almost exclusively on commercial property lending. One of its strong selling points was "speed of approval" for loan applications." (Nyberg, 2011:32)

[34] Klaus Regling is a German economist who advised the German government on financial regulatory reform and was head of the European Financial Stability Facility. Max Watson was appointed to Ireland's Central Bank Commission, the Governing Body of Ireland's Central Bank.
[35] Peter Nyberg is a Finnish economist who worked for the IMF and as an adviser to the board of the bank of Finland.

The report notes that relationship banking was the dominant "sales culture" of senior banking executives. (Nyberg, 2011: 28) Regling and Watson, (2010) also found errors in bank management and governance. Weaknesses in the lending procedures included lapses in loan documentation, weak assessment of credit risk, and very little stress testing. These findings shed light on the dominant culture that surrounded the arrangement of development lending at the time.

Though Nyberg (2011) focussed on the socially grounded institutional failings that lead to the financial crisis in Ireland he also suggested that there was a more emotionally charged "speculative mania" part of the national psyche that contributed to this. Lunn, (2013:565) goes further and links emotional decision-making with asset bubbles when he states that "there are good reasons to question whether the highly correlated decision-making that characterises bubbles is caused by heightened emotions". This view was echoed in other prominent reports at the time such as Regling and Watson, (2010:19) who described market conditions as "euphoric" and Honohan, (2010:14) who described international markets as "hysterical". This provides additional support for the second pillar of this conceptual framework that emotions and intuition are important. Chapter 3 drew on the substantial literature in the behavioural economics domain that supports the view that decision-makers frequently use short-cuts (heuristics) that can result in biases in decision-making. Lunn, (2013) carried out a review of financial decisions taken at the time and examined the role of decision-making biases in the banking crisis in Ireland. He found that

> "Ireland may have been a victim of an economic illusion; an unreality seen and acted on simultaneously by many people with different roles but similar intuitions. Behavioural convergence, perhaps even emotion, may amplify such phenomena"

His findings focus on substantive rationality (examining decision outcomes against an economic rational decision) that was discussed in Chapter 3, Section 3.3. At the same time, Lunn's work supports the conceptual framework for this research that asserts that, in uncertain and complex situations intuition and emotion drive decision-making.

Following the financial crisis, unemployment rose rapidly, which had a severe effect on public finances. By 2010 the banking sector to all intents and purposes did not exist as a business lender and was in partial or complete government ownership. To get the banking

sector working again, the bad debts had to be dealt with and the National Asset Management Agency (NAMA) was established.

NAMA – The only game in town

In 2009, NAMA was established with the specific purpose of buying (at a discount) non-performing loans from Irish banks. Williams described NAMA as acting as "a repository for the failed development-finance sector, transferring major property development loans from Irish banks in return for government bonds" (2014: 142). Ethically this understandably caused a lot of concern, as the creation of NAMA "nationalise(d) a considerable portion of the banks' bad debts" (O'Callaghan *et al.* 2014:38). In effect, the loans could be either worked out or the properties warehoused by NAMA to be sold later on. Rather than each bank working out these practicalities on its own, NAMA provided a single solution. There was an implicit belief in the powers of the market cycle and that NAMA would benefit from this. The creation of NAMA was to play a significant role during the 2010-2020 period, both for property developers, international investors, and the property market which is discussed in the next section.

The scale of the portfolio of assets held by NAMA was equal to almost half (47%) of Irish GDP at the time (Byrne, 2016). However, what was striking was the fact that the majority of debt was concentrated on a small number of debtors. For example, the NAMA Annual Report and Financial Statement 2010 reveals that the largest 180 debtors had debts of €62 billion (average debt €75 million). The next 670 debtors had total debt exposure of €10 billion (NAMA, 2011). The geographical breakdown of the property-related loans indicated that 67% of Irish property[36] was located in Dublin. A sectoral breakdown reveals that 66% of property loans were property-related and 34% were development land and development assets. (NAMA, 2012) The property developers that owed money to the Irish banks, now owed money to NAMA. They entered negotiations with NAMA to try and work out a repayment plan. If they could not agree, they were required to repay the debt in full or face enforcement proceedings. (NAMA, 2011, 2012; Williams, 2014)

By the beginning of 2010, a large number of property developers were working with NAMA to manage their debts. This was the largest property asset manager in the world at the time. It became clear that most of the development was funded by the domestic

[36] Total properties related to the loans to NAMA were located mainly in Ireland and the UK. Property related loans were geographically located as follows: 54% Ireland, 33% Britain and 3% Northern Ireland the rest to Germany UK, Portugal and France.(NAMA, 2012)

banking sector. The old and evidently flawed bank lending model for property development ceased to exist in Ireland. This characterised the situation for property developers at the beginning of the study period.

This section has identified the rules and conventions that frame the development process. The complex social processes that were brought to light in the conceptual framework have been identified.

5.3.1 Development funding – new rules of the game

There was a dramatic change in the source of property development finance during the study period, which is not surprising given the extent of the banking crisis highlighted above. Attention was focused on importance of the role of the banking sector in the last development cycle. This section examines how property developers in Ireland gained capital capability from international public and private equity funders, to begin developing again.

Ireland is well known to depend on external and foreign direct investment (FDI), a strong foundation of modern Irish economic policy. Before 2010, FDI policies were concerned with attracting companies that would provide jobs. However, from 2010 onwards international investors were drawn to Ireland due to advantageous taxation structures, the existence of NAMA and the entrepreneurial style governance discussed in Section 5.2 (Fox-Rogers et al., 2011; Kitchin et al., 2014; Byrne, 2016b; Duffy and Dwyer 2018). These three factors significantly reduced uncertainty and increased access to information (NAMA warehoused all the distressed property assets) in the development process highlighted in Chapter 2.

Private equity finance

In late 2010 and 2011 large-scale, mainly US, investors became a feature of the Irish property market. Whilst the rationale for this move does not form part of this research, there seems little doubt that these companies were attracted by the deeply distressed and therefore discounted property markets. International capital became a significant source of development capital. This occurred in two ways. The first was the arrival of major US property development companies. The most significant of these were Kennedy Wilson and Hines. Kennedy Wilson, a large US investment company, purchased Bank of Ireland's property asset management fund in 2011. In March 2011, Hines, the $23bn US real estate commercial real estate investment and development firm opened offices in Dublin.

Both companies hired domestic developers and began developing with the intention of holding the completed developments as long-term investments in Dublin. The head of Hines Ireland, an Irish born architect, Brian Moran said at the time "Up until mid-2012, there was a warehousing exercise going on with real estate here, NAMA was coming to grips with the portfolio and loans that it had inherited" (*Sunday Business Post*, 2012). NAMA were the 'warehouse' for Irish commercial investment and development property This appeared highly attractive to international investors as there was a single government agency responsible for all the property loans. International investment into Irish property assets provided the, much-needed, financial liquidity in place of a functioning banking system. Hines and Kennedy Wilson became two of the largest property developers in Dublin during the decade to 2020.

The second type of international investor came from the private equity market. To gain access to the development market many of the developers that were now working out their loan obligations with NAMA teamed up with international investors. Quinlan, (2017) highlighted the number of large-scale developers, who made their name in the previous development cycle that were subsequently working out their obligations with NAMA. Crucially he highlights how these large-scale property developers were now teaming up with international equity funders. This enabled the developers who were a significant force in the previous development cycle, to begin developing again. Irish developers rapidly integrated into a network of international funders. According to Quinlan development funding came predominantly from the US, Asia, and the UK (Quinlan, 2017).

Public equity finance

In the absence of the domestic banking sector, other property developers focussed attention on raising funding from the public equity markets. The equity market became the third major source of property development funding. Before 2013, the Irish stock market's exposure to property came from the construction sector (CRH plc, Kingspan plc) and to a lesser extent the banking sector (AIB plc, remains largely owned by the Government and Bank of Ireland plc also partially government-owned). In the years that followed legislation for new property investment companies called REITs (Real Estate Investment Trusts) provided an additional source of capital for the development market in Dublin.

Real Estate Investment Trusts have grown in importance as property investment vehicles worldwide since the 1990s. Like other REITs, Irish REITs do not pay any corporation tax

on profits and gains from rental income[37]. REIT holders pay tax on income and capital gains, avoiding a so-called 'double taxation' that ordinary property investment companies are exposed to. The traditional property company did not exist to any great extent in Ireland recently, unlike the UK there were no property companies that would readily convert to REIT status. Six years after the UK introduced REIT legislation, similar legislation was introduced in Ireland in 2013.

By 2013 the first two Irish REITs were in place, Green REIT plc and Hibernia REIT plc (Marzuki et al., 2019). Green REIT plc raised €310m and Hibernia REIT plc raised €385m (ISE, 2013). In early 2014, Ireland's first specialised residential REIT, IRES REIT was formed. Initially, it raised €200m. In less than one year, almost €900m was available from the equity market to purchase land and buildings. This was a significant capital injection into the commercial property market when values were at their lowest since the GFC. Another consequence of this legislation was that the diversity of institutional developers expanded. Though there were institutional property investment funds in Ireland before this, a greater concentration of the development market was now in the hands of institutional developers. Whereas in the past developers were traditionally assumed to be smaller local developers, this period ushered in the era of the institutional developer in Ireland.

According to O'Callaghan *et al.* (2015) "This measure [REIT legislation] aims to entice international (and domestic) investors to acquire portfolios of unsold commercial and residential properties, mainly in Dublin." (2015: 42). In addition to REITs, other standard property companies began to emerge. Cairn Homes Plc, now a significant force in the Dublin housing market, was the first Irish developer to raise capital on the equity market in almost two decades (O'Halloran and Brennan, 2018). Initially, Cairn Plc raised €400m which was available to purchase sites around Dublin. Glenveagh Properties plc was listed on the Irish stock exchange later in 2017, raising another €500 million. Like Cairn Homes plc, their stated aim was to build houses in the Greater Dublin Area. Over four years, almost €2 billion was transferred from the equity market to the commercial and residential property market

This section drew attention to the development funding environment for property in the years leading up to and during the decade to 2020. It highlighted that social, cultural and

[37] To qualify for REIT status, they have to (amongst other things): distribute 85% of income from the properties they hold, it must derive at least 75% of its aggregate income from property rental business (Tax and Duty Manual Real Estate Investment Trusts (REITs), 2018.

emotional processes were exposed as signficant drivers of market parctice and decision-making. It also illustrated how central government again played a signficant role in changing the dynmaics of the development funding market. New institutional property investors played a signficant role in stimulating the property market, at the same time they also added to the diversity of developers. NAMA emerged as a significant force in the property market. Its value lay in the fact that it was a single entity concerned with managing down the bad debts and property assets of the last development boom. As a result of this, there were several highly experienced property developers in Dublin.

The next section builds on some of these ideas, describes the development market and outlines what was built over the period in Dublin. A focus is put on the types of developers and where development occurred. Office and residential development became the main development sectors over this period.

5.4 Development market and the rise of the Irish property developer

In the years before the financial crash, property market supply was at its highest ever recorded in Ireland. This is unsurprising given the institutional contexts that have been outlined so far. Yet, what is surprising is the location of these developments and the way this growth affected the structure of the property development market in Dublin. Chapter 4 drew attention to the different sources of information that are capable of being woven into a case study, specifically it highlights different types of information used in this chapter (See Table 4.6 Local development market – contextual sources and coverage). The data for this section is drawn from the database of 'onsite' developments. Chapter 4 details how this database was constructed in conjunction with CIS and Appendix 3 outlines the specific and detailed information obtained for all developments in Dublin over the period.

These events are highlighted here to give a context to the qualitative interview data that is contained in Chapters, 6, 7 and 8. Attention is now drawn to the structure of the development market in Dublin.

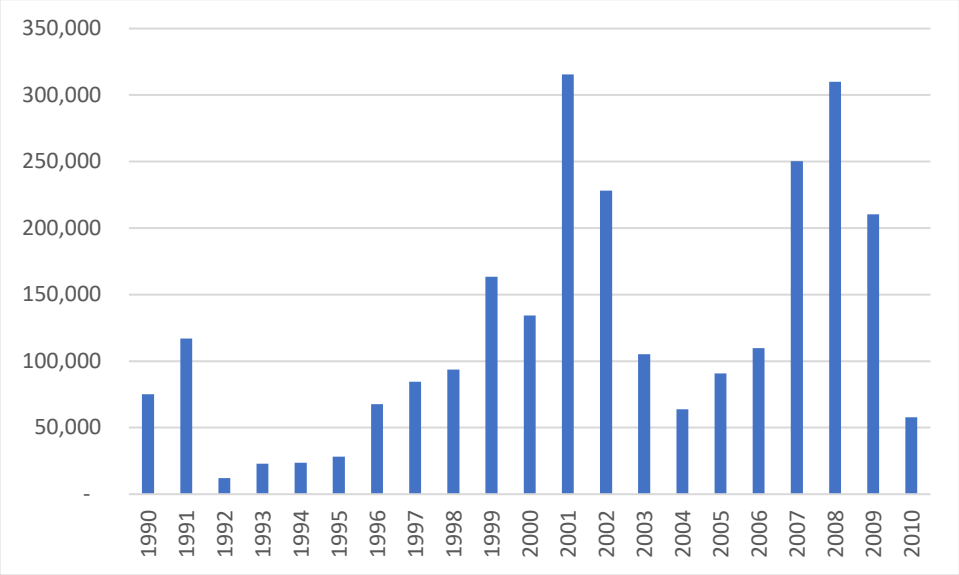
Suburbanisation of the office market

Boom and bust cycles of property markets are persistent over time (Grenadier, 1995), not specific to a location and often associated with a banking collapse (Herring and Wachter, 1999). The development sector in Dublin has experienced successive development market cycles and one of the most exaggerated occurred in the years before 2010. Tracing the trends in supply for all sectors of the property market is challenging, which is mainly due to the paucity of timely, independent data for the property market in Dublin (McCartney, 2008; Casey, Bond-Dwyer, and Coates, 2019). The majority of research on Dublin focuses on the office and to a lesser extent residential market. The following is a brief review of this, highlighting cyclicality, and the structure of the development market.

Research on the office development market was largely based on data collected by the main valuation agencies in Dublin. Cycles are a feature of property markets in general and tend to be more pronounced in property development markets. There is strong evidence to show that that the production of commercial office space in Dublin was volatile and cyclical. Cycles tended to last approximately 10 years. (MacLaran et al., 1987; MacLaran and Killen, 2002; MacLaran and O'Connell, 2004; McCartney, 2008; Attuyer et al., 2009).

MacLaran (2010) noted that Dublin had its fifth office development boom during 2009 since the 1960s. Fig. 5-3 below illustrates the cyclical nature of the office floorspace constructed in Dublin since 1990.

Fig. 5-3 Office completions (sq.m.), Dublin 1990 - 2010



Source: Lisney, Ireland.

A significant feature of the last cycle of office developments was that each development was getting larger and the number of developments was falling. MacLaran, (2010) estimates that the average size of a development completed in 2010 amounted to 11,200 m² whereas in 2001, this was 2,513 sq.m. In addition to this, there was a significant clustering of completions during 2007 and 2009 when a total of 15 developments added 260,000 sq.m to the total office stock. Fewer developments of larger sizes were built by more powerful property developers (MacLaran, 2010)

In addition to the changing size and extent of office developments described above, there was a shift in the location patterns of development. There was a concentration in prime locations which moved to non-traditional locations over the period (Attuyer et al. 2009). MacLaran, (2010) records a shift to the suburbs of Dublin away from the city centre. By the end of 2009, 35% of office space was located in the suburbs whereas only 32% was in the city centre. The suburbanisation of office development during this period was evident in other European and American cities during this time. Attuyer et al. (2009) note, that in the first four years from 2000 to 2004, a total of 765,292 sq.m. was produced in Dublin.

This was equivalent to 110% of the output recorded for the previous 10 years and that the suburbanisation trend continued.

The office development market in Dublin in the years leading up to the study period was highly cyclical, with cycles lasting approximately 10 years each and a dramatic movement of offices to the suburbs during the more recent cycles.

Housing supply and ghost estates

The other major development market sector that attracted considerable international attention before 2010, was the Irish housing market. Much of the focus was on the rapid increase and subsequent dramatic decline in house prices during the period known as the Celtic Tiger (Kitchin *et al.*, 2012). Lyons, (2014) notes a lack of research on housing supply during this time. Housing supply can be challenging to capture, this has improved during the study period but it remains problematic. Government analysis of housing supply was based on the number of units connected to the Electricity Supply Board (ESB)[38]. This data was and still is, used as a proxy for housing completions. This practice was justified by the fact that there was no alternative electricity supply source. Stevenson and Young, (2014) note that in Ireland annual completions peaked between 2003 and 2006. Annually housing completions in Ireland reached over 70,000 in 2003 and 2004 and more than 85,000 in 2005 and 2006.

Following the GFC, it became clear that using ESB connections was an inadequate proxy. It did not capture a considerable number of reconnections to the ESB grid. It excluded housing that became part of the ghost estates[39] phenomena. A lot of research was concerned with the ghost estates that appeared in rural areas in Ireland (Kitchin *et al.* 2010; O'Callaghan et al., 2014). Through the lens of neoliberalism this body of research found that the state failed to regulate both the banking sector (financial regulatory) and the development market (planning policy).

[38] The ESB is a state-owned electricity company operating in Ireland.
[39] Ghost estates is the term used to describe unfinished housing developments in Ireland. Whilst there was evidence of ghost estates in all counties in Ireland urban centres experienced these to a much lesser extent per head of population than rural locations (Kitchin *et al.*, 2010)

The local property developer

The development market and property developers have had a high media profile in Ireland since the 1990s. Prominent journalists Frank McDonald and Kathy Sheridan published a book entitled "The builders – how a small group of property developers fuelled the building boom and transformed Ireland". (McDonald and Sheridan, 2008) This is a colourful account of the behaviour of property developers active during the Celtic Tiger era. It is interesting in that it gives a cultural account of the time. In general, this book features the large-scale developers in Ireland before 2010, most of whom ended up owing a lot to NAMA.They highlight that there was not a long tradition of property development in Ireland before the 1960s, admitting that there were "excellent builders such as Crampton and Strain that built excellent housing" (2008:1) whose reputations were built on the quality of the houses they built. Of the developers that specialised in housing, there was a drive to build a name for yourself as a quality builder.

Chapter 3 highlighted the characteristics that were considered to be common among property developers. Here the entrepreneurial characteristics are brought into focus and developers are viewed as "impresarios" (Adams, Croudace and Tiesdell, 2012: 2582) and "orchestrators" (Gore & Nicholson, 1991:718) of the development process. A developer's expertise is understood to be entrepreneurial in the way they can spot opportunities (Rauch and Frese, 2007; Adams and Tiesdell, 2013). This view of developers as entrepreneurs with drive and ambition is also highlighted in an Irish context (McDonald and Sheridan, 2008). They found evidence that "Getting to the top requires single-minded obsessive behaviour"(McDonald and Sheridan, 2008: 2). They underscore the popular profit-driven perception of developers and state that developers are "perceived as predatory, profit-driven, ruthless and prepared to walk over anyone, or anything that gets in their way" (2008: 3).

There is also evidence that local Irish developers understand the importance of social processes in the development process. McDonald and Sheridan, (2008) devote an entire chapter to one developer – Bernard McNamara to illustrate the point. McNamara had his origins in the west of Ireland and came from a generation of builder-developers. He is interesting because he is one of the developers that rose to become one of Ireland's

billionaires that ended up with debts of €1.2 billion (Mulligan, 2019). Emphasis is put on his skill as a social networker as evidenced by the following quotation.

> "The Raglan Roadhouse was significant in the context of his eventual colonisation of Dublin. That privileged Dublin base, plus 12 years of unwitting networking with future movers and shakers on holidays in Renvyle House Hotel in Connemara, followed later by sociable Friday evenings at the Shelbourne Bar…. chatting with architects while nosing around for business, all made him realise that he 'knew an awful lot of people in Dublin. And awfully useful people at that". (McDonald and Sheridan, 2008: 131-132)

McDonald and Sheridan, refer to "monthly dinner parties featured an impressive assembly of figures from business, politics and the arts, while his lavish lunches in Antibes are legendary" (2008: 133).

Foundational concepts used in the conceptual framework for this research such as entrepreneurial characteristics and an emphasis on the power of social relations were highlighted in much of the media coverage at the time. This chimes with the emphasis on relationships found in the banking and funding environment. Relationships were powerful ways of gaining information and smoothing the complex process of property development. This provides substantial support for the conceptual approach used in this research.

5.4.1 Development in Dublin 2010 – 2020

As a result of the dynamics of the planning and funding environment discussed so far, the structure of the development market underwent significant change over the period in question. This spurred significant growth in output in specific locations and sectors in the second part of the decade. The development cycle was marked by a shift from an initial spurt in developments in office buildings to large scale residential development. This section charts the development market in Dublin throughout the period. It details all development in Dublin over the period, on a sectoral and geographical basis. Finally, it describes diverse types of developers and how they were funded over the study period. This assists with analysis of the diversity in developer behaviour that was described in the conceptual framework for the research.

A slow start followed by significant growth

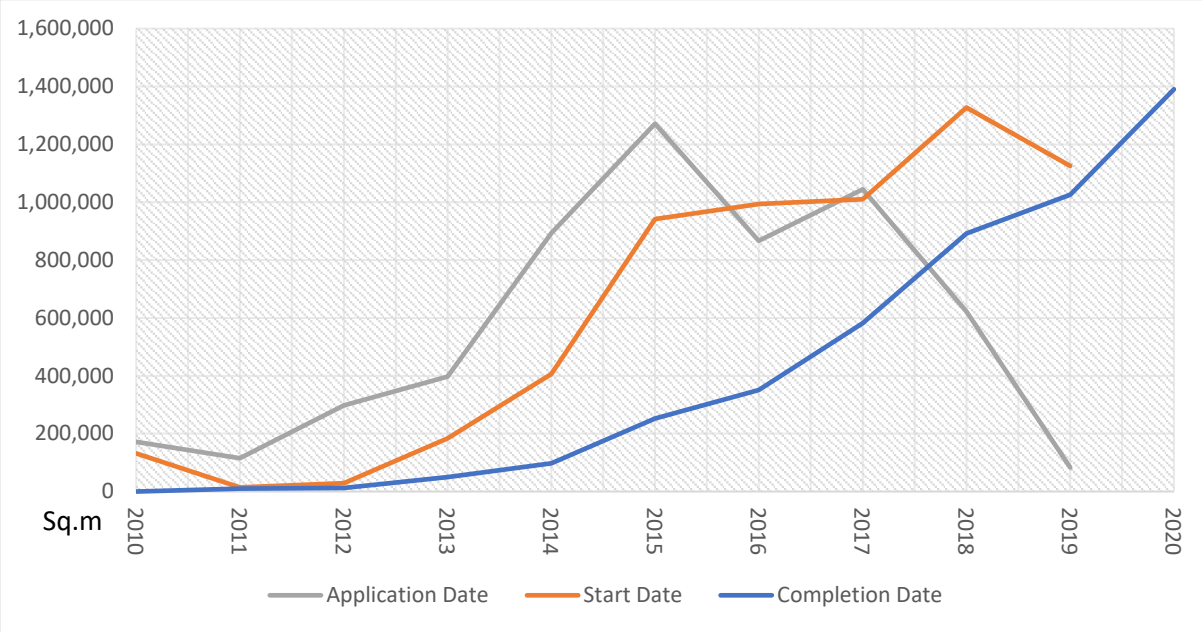
Discussing property development market supply and decision-making is a complex issue. When a finished development arrives on the market a significant amount of time will generally have elapsed since the decision to develop was made. The question arises, what contextual factors influence the beginning, nature and duration of a completed development? Chapter 2 discussed the events and stressed the importance of the sometimes substantial timeframe that is required for the development pipeline (Barrett and Underwood, 1978). As Adams & Tiesdell, (2013: 77) point out, development outcomes are inherently unpredictable as "uncertainties experienced internally within the pipeline are matched by constant shifts within and between the factors driving development externally". The question remains, when does the decision to go ahead to either purchase land or begin construction occur, and how can this be matched with the final supply of completed property?

To assist with exploring the different ways of capturing the timing of output the database used in this research contains the following specific project information:

- the date the planning application was submitted to the relevant authority (application date),
- the date that those applications then progressed to on-site construction (start date) and
- the completion date (completion date). See Fig. 5-4 below.

Using a pivot table to illustrate the amount of space being developed and charting this against the above dates a spotlight can be put on the decisions in the process. The most striking fact is that 2013 was a watershed date for the planning of developments in Dublin. From 2013 onward, the amount of space being planned increased considerably. A greater amount of space may have been planned but it may not have proceeded through to the planning process. This analysis is distinguished from other analyses of planning applications in that it only represents developments that progressed through to the construction phase between 2010 to 2020.

Fig. 5-4 Private sector developments 'onsite' Dublin 2010 - 2020



Note: fall off in application data trendline from 2017 onwards is because the data set only captures developments that were 'onsite' from 2010 up to 2020.

Advancing to 'onsite' is an important watermark for property developers as it is at this point that significant commitment has been put into the project; the site has been purchased and the initial design, surveys and application have been paid for.

The orange trend line represents the development supply however, this time it is charted according to the construction start date. The final blue trend line represents the completed developments. This is when developments are ready to be either occupied, leased, leased and sold or sold with vacant possession. What is striking about this chart is that it is a

graphic representation of an urban property development market moving through the different stages of the development process.

This chart reveals another surprising fact, the apparent delay in advancing to constructing developments between 2015 and 2017. There may be several reasons for this, firstly it could be to do with the fact that construction capacity was not prepared for this level of building by 2015. Alternatively, and more likely it is evidence of a city-wide switch from office to residential development. It is evident that the development market had an adjustment period whilst it moved the focus from the development of offices to the development of residential properties.

Fig. 5-5 All development by year and sector, 'onsite'

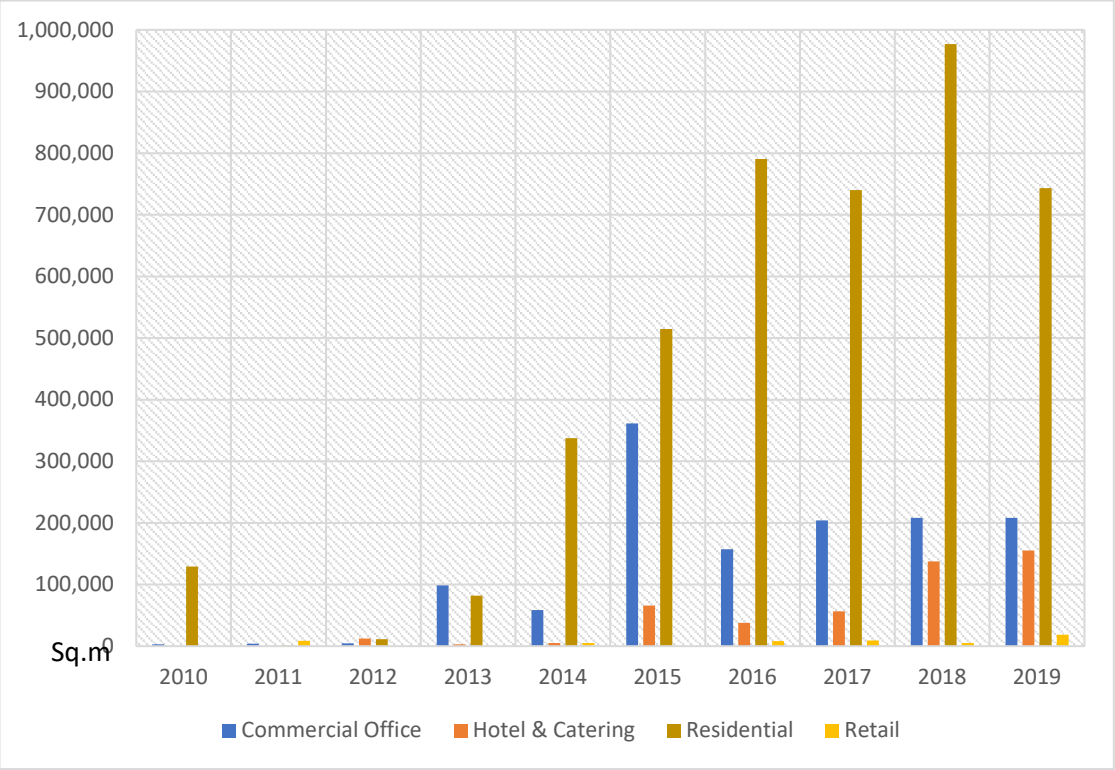


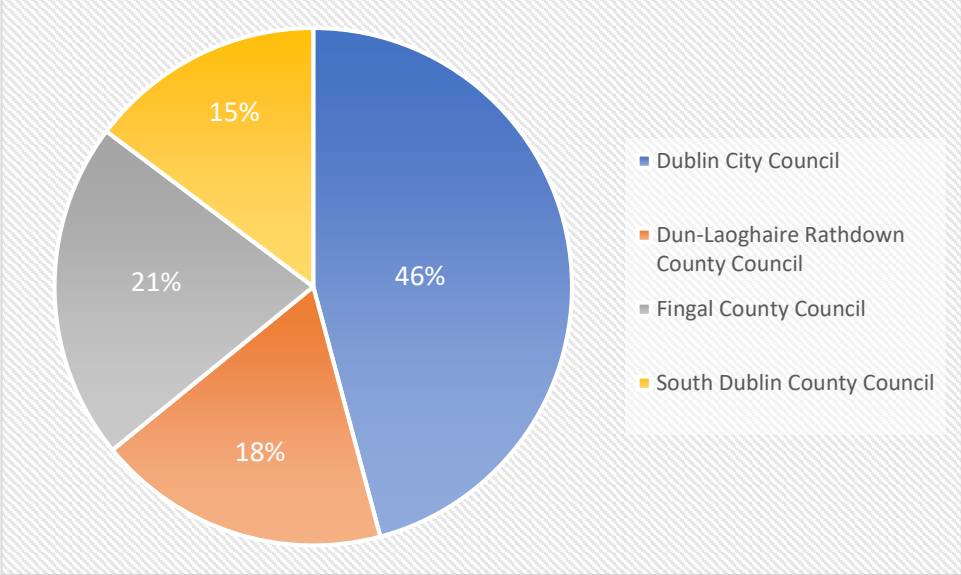
Fig. 5-5 above drills deeper into the dataset and uncovers further details about how development occurred during the period. The rapid fall-off in the commencement of office buildings in 2016 is striking. What is overwhelmingly clear is the focus on residential development from 2015 onwards. During the first half of the decade, office developments were in high demand from the IT sector. Duffy and Dwyer, note that "70 per cent of the take-up of office space in the first half of 2015 was by new and existing FDI companies" (2015:1).

An analysis of the data reveals that the overall development time decreased significantly over the decade. For applications that were submitted in 2010 property development was taking on average just under 5 years to complete, this halved by 2019 when property developments were taking just over 2.5 years to complete. The saving in time did not come from the construction period, which remained stable between 18 – 20 months over the decade. Unsurprisingly the time savings came from planning (average time fell from almost 7 months in 2010 to just over 3 months in 2019). More significantly a reduction in time from the planning decision date to construction commencement date occurred which was from 30 months in 2010, halving to 15 months by 2015 to just under 2 months by 2019. Developers were starting construction earlier and earlier as the decade advanced.

A concentration in Dublin City Council

Regarding the location of development over the study period, Fig 5-6 below illustrates clearly that just under half of all development 'onsite' during the study period took place in Dublin City.

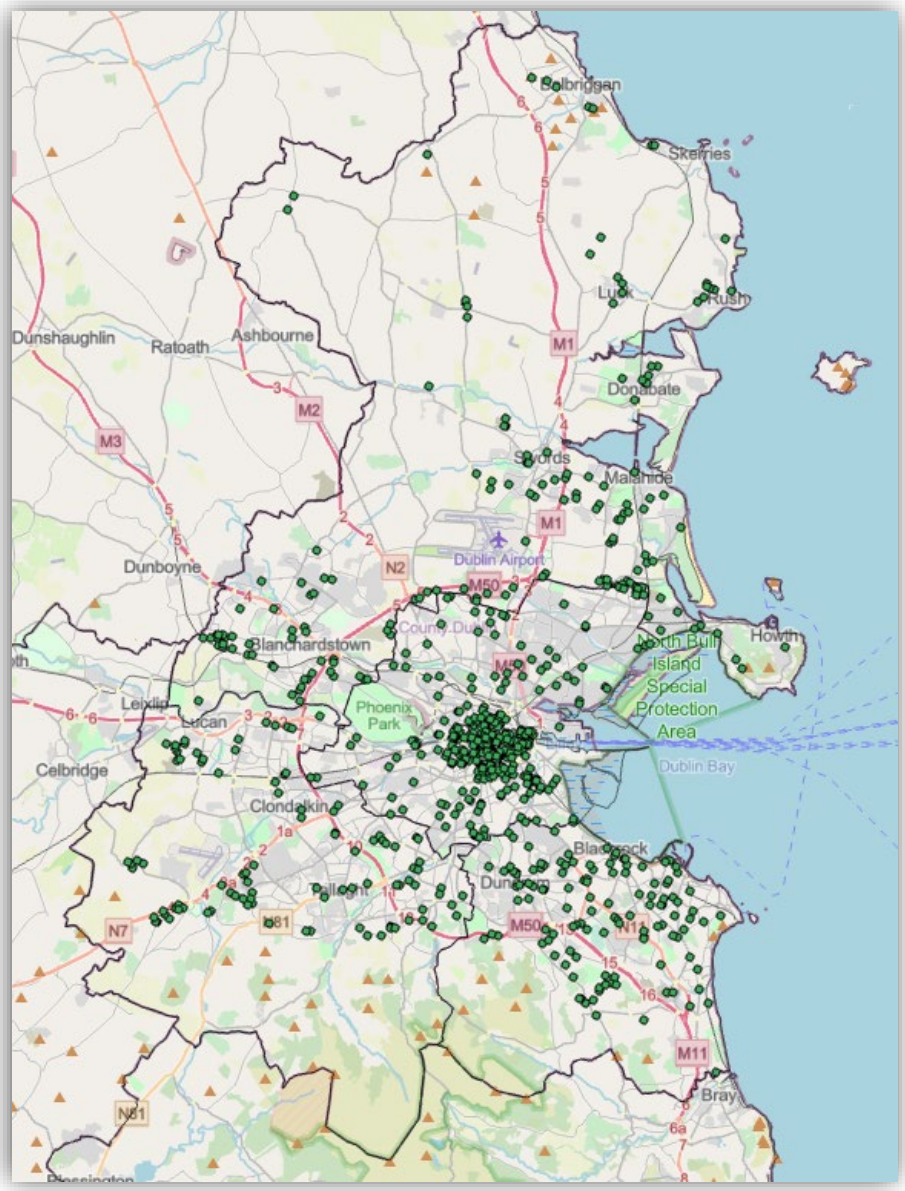
Fig. 5-6 Location of property development Dublin 2010 - 2020



During this time there was a significant increase in development back into the city centre, with a concentration of development in Dublin City Council when compared with other county councils. However, if all suburban locations are considered as one then 54% of development took place outside of the city centre. Development is fairly evenly spread across the three other local authorities outside Dublin City.

Fig. 5-7 below maps the number and location of developments in Dublin over the 10 years that went to the site. Although it does not illustrate the amount of space being developed in each location and may be misleading from that point of view, it does illustrate the concentration in the number of developments. This is in stark contrast to the development boom highlighted in Section 5.4.

Fig. 5-7 Mapping development 2010 - 2020 - city centre concentration



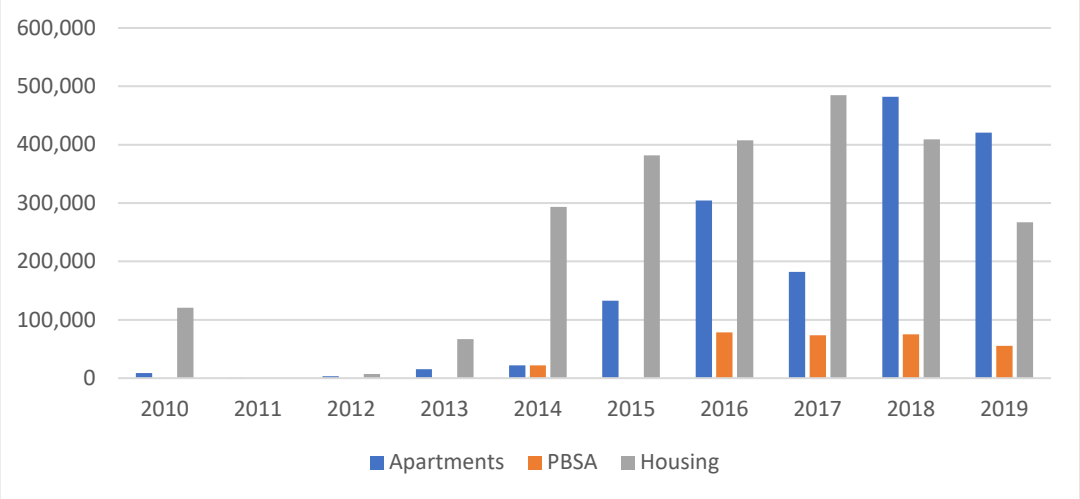
Source: Map data licenced under ESRI, base map OpenStreetMap, Administrative Areas OSi National statutory boundaries.

First, we build offices and ... then apartments

Office and residential development formed the largest share of total development over the period. Office development was more pronounced in the first half of the decade and residential development took greater prominence in the latter half of the decade. Whereas all local authorities had an increasingly significant amount of residential development, as the decade wore on, Dublin City Council and to a much lesser extent, Dun Laoghaire-Rathdown was where office developments were located.

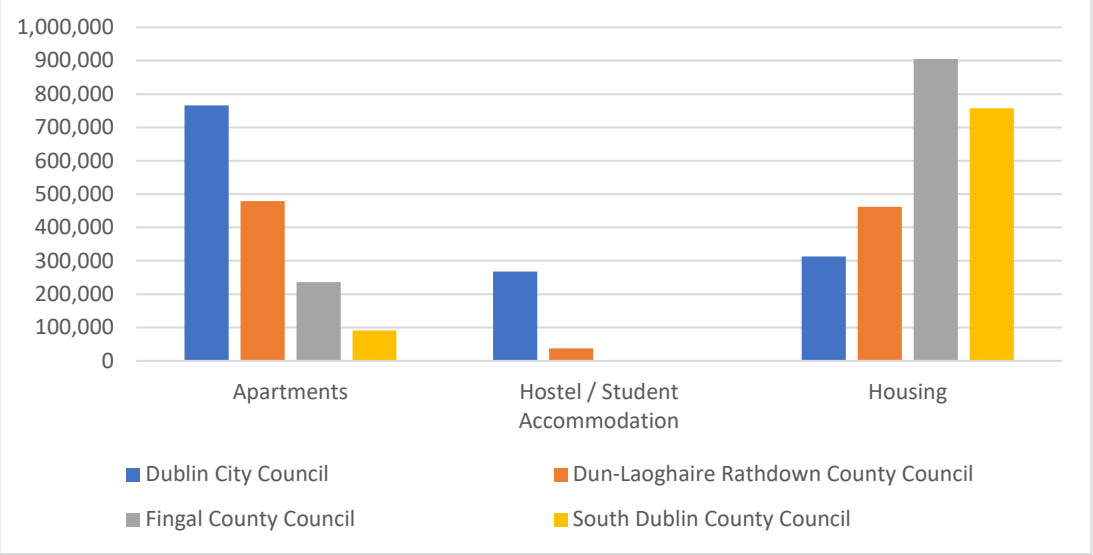
During the second half of the decade, residential development was the largest development sector in Dublin. Fig. 5-8 below focuses on residential development and illustrates the significant growth in apartment developments in Dublin from 2015 onwards. This chart clearly illustrates that single unit housing developments were growing steadily until 2017, whereas a more uneven level of construction of apartment developments occurred up until this period. This coincided with changes in the legislation regarding the delivery of strategic housing projects and later on more specific guidelines on apartment dwellings.

Fig 5-8 A spotlight on residential development



What stands out from the chart below is the growth in single unit developments in Fingal County Council and to a lesser extent South Dublin. More particularly it shows how apartment development is heavily concentrated in the Dublin City council area.

Fig. 5-9 Concentration of housing type by, local authority

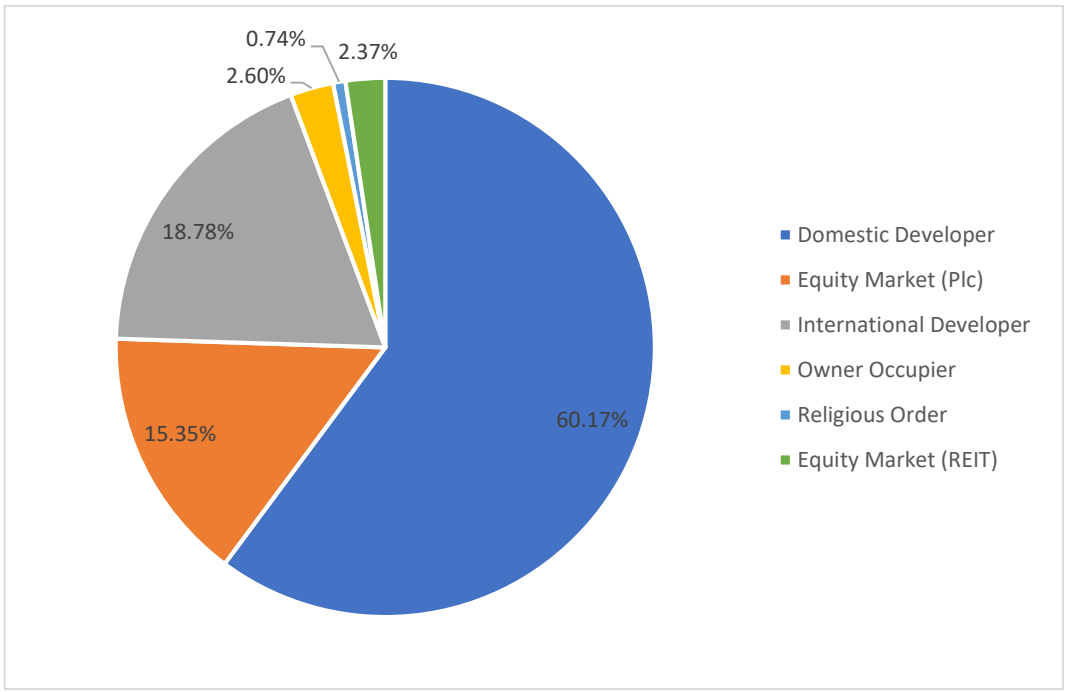


A spread of developers

The results of the analysis of the development database reveals some interesting insights into how concentrated development became over the period. An analysis of all developments over the 10 years reveals that 30% of total output was developed by 10 developers. Half of all floor area produced in Dublin over the period was developed by 29 developers.

72 developers were responsible for 70% of the gross floor area developed. The analysis that follows is based on these developers. A significant issue in the financial collapse that preceded this development cycle was how the development sector was almost exclusively funded by bank debt. This is in stark contrast to the current development period where almost 20% of total developed space was directly funded by international developers. Section 5.3.1 refers to this however, an analysis of the database reveals that significant international developers that were active over the 10 years include Hines (US), Kennedy Wilson (US), Marlet plc (UK) and Oxley Holdings (Asia).

Fig. 5-10 Different developers - Dublin 2010 - 2020



The equity market provided a funding platform for several different developers in Dublin during the period. REITs are categorised as being separate from other equity market developers for two reasons firstly the fact that development is secondary to their main purpose and secondly that the REITs were mainly concerned with developing commercial office space. By contrast, other equity market developers were concerned mainly with single-unit residential developments for sale (Cairn plc and Glenveagh plc).

5.5 Conclusion

The conceptual framework for this research highlights the importance of social relations between development actors and how more effective development outcomes occur with deeper social relations (Adams, Leishman and Watkins, 2012; Henneberry and Parris, 2013). This chapter has brought some key insights to light. We have seen how central government has pulled power away from local planning executives which has deepened the cultural divide between the local planners and developers. This process of distancing local planning executives began quite some time ago but was accelerated in the second half of the decade. What is interesting though is that this has not had an effect on development supply. Section 5.4 revealed that, even though relations between the local planning executive and property developers were more distant, permission was facilitated through the fast-tracking process for planning applications in specific locations and certain sectors and the existence of An Bord Pleanála as manager of that process.

By focusing attention on the institutional context for property development, critical areas of finance, planning and aggregate analysis of the development supply were uncovered in this chapter. Crucial to this is that during the first half of the decade, most large-scale property developers were involved in working out significant loan obligations with NAMA. At the same time, and as a result of the banking collapse, the funding lines for development through the domestic banking sector dried up. This resulted in an almost complete cessation of development activity during the first few years of the study period, as illustrated in Fig. 5-4.

Several changes to the planning and finance regimes combined with the decisions, actions and behaviour of property developers and other actors in the development process reversed this. Uncertainty in the key areas was reduced so development activity could begin again. Specifically, this chapter has unearthed examples of how institutional arrangements that were introduced during the period provided additional levels of certainty for developers, a core area of concern for this research. There were several significant changes to the planning regime in Dublin over the period that had the effect of reducing the time to obtain planning permission. This was highlighted by De Magalhães et al., (2018) as being a major risk highlighted by property developers in their study. With the introduction of the Strategic Housing Development (SHD) legislation in 2017, large-scale housing developments were fast-tracked through the planning permission process. Prior to the introduction of this legislation, the database developed for this research reveals that the

time to obtain planning permission was double what is was before the legislation was introduced. This contention is further supported when the details of Fig. 5-5 are considered, which illustrates that 2018 saw the highest amount of residential development over the decade. This legislation signalled a reduction in the risk of obtaining planning permission for large-scale residential developments.

There is other evidence of how increased certainty resulted in reduced risk for the development community, and contributed to an increase in supply levels. This can be seen in the growth in development output into the city-centre. Fig 5-6 illustrates that Dublin City Council experienced the greatest concentration of growth in supply when compared with the other 3 local authorities. The increase in supply in Dublin city centre can be attributed to a number of different factors. The primary one being the designation of the Grand Canal Dock as a Strategic Development Zone (SDZ). Although the general designation of the location was agreed in 2012, it was not until 2014 that the planning scheme was in place. This planning scheme gave developers and investors increased certainty in the site's development potential in this location. Once the decision to designate the 66 hectares of land in the Docklands occurred, these sites contained a considerable amount of planning certainty in them.

The existence of NAMA was another contributory factor that drove development in this location. Section 5.3.1 drew attention to this and the fact that NAMA was in control of much of the land in the city centre that provided a 'warehouse' for heavily discounted sites for potential investors, many of whom were international. This resulted in reduced time and costs of finding sites for potential investors. The examples provided here demonstrate the relationship between certainty in gaining planning permission and reduced risk which contributed to an increased supply, in a specific location.

The extent to which formalised regimes of rules and regulations directed this is perhaps open to question. For example, there is evidence in this chapter that the development sector began developing residential units before the introduction of the SDZ legislation. Additionally, it is questionable whether the fast-tracking of applications in a sought-after location like the Docklands was necessary. Nonetheless, the effect of the formalised regulations was to increase the speed at which investment and development occurred in specific locations and sectors.

Alexander, (2001) contended that the development process would be riskier and therefore costlier without land use planning and development control. Whilst the research presented here does not employ a new institutionalist lens, the results support fact that, in certain circumstances, policy initiatives can have a direct effect on the perception of risk. This was illustrated with the introduction of SHD and other fast-tracking legislation in Ireland over the period. The implementation of this legislation by An Bord Pleanála was significant and it is open to question whether the bureaucratic machinery of local government can act in a similarly efficient way.

It is clear from this chapter that the perceived level of risk in property development in Dublin was transformed over the period. David (2012) put forward the view that market risk can be transformed by the joint actions of developers and land owners. This research illustrates a more complex and nuanced transformation in Dublin over the decade.

Throughout this time, the level of development increased considerably from an insignificant amount during the early years of the decade to perhaps one of the highest when compared with previous development cycles. It should be noted here that comparing development supply over different decades is questionable due to the way in which (office only) development output was calculated in the past (see section 5.4). Nonetheless, it would likely suggest that from 2010 to 2020, the development supply was higher than any previous decade. The general view that the level of risk in property development projects in Dublin experienced a fundamental transformation over the period is undeniable. The previous discussion illustrates that the timing of supply and the changes to the formal and informal arrangements for the development sector have had a bearing on this transformation.

The following three chapters are based on the information gathered from the qualitative interviews with the 13 property developers that agreed to take part in this research. The data collected is based on the real-life development decisions that were characterised by poor information and uncertainty. The development projects occurred in Dublin between 2010 and 2020.

6.1 Introduction

> "Those working in the private sector repeatedly referred to its close-knit community, nature and the importance of reputation, trust and knowing the right people." (Brill, 2018:6)

Brill's quotation directs attention at the power of the network of private sector relationships in urban development markets. This chapter uncovers evidence that chimes with this, derived from an analysis of developers' attitudes to the private-sector network of relationships, throughout in the decade from 2010 to 2020. The central aim of this chapter is to focus on the extent to which developers operating in the Dublin development market during this decade were embedded in the private-sector. The network discovered in this research brings the developer-funder, end-user and professional intermediary into sharp focus for this development period. This chapter addresses the first research question drawing on the social dimension of the conceptual framework for this research. The private-sector network of relationships is the focus in this chapter whereas the public-sector dimension of this research question is addressed in the next chapter. The first research question asks:

> *To what extent does property developers' embeddedness in local development market networks give them the ability to manage uncertainty and filter information, and inform decisions and strategies?*

The conceptual framework for this research acknowledges that developers do not act, decide and behave in the same way, instead a range of behaviours can be observed. Accordingly this research does not "treat developers as an undifferentiated homogeneous group" (Coiacetto, 2001:47). This idea is grounded in old institutionalism (Hodgson, 1998) and is gaining traction in recent research. The framework developed here uses the "place-base" and "non-placed" based distinction to examine this. This chapter begins to build up the evidence that is used to answer the third research question:

> *To what degree can an exploration of embeddedness in local development market networks and use of intuition shed light on Adams and Tiesdell's (2010:199) "place-based and non-place-based" entrepreneurs?*

This chapter proceeds by analysing and synthesising the qualitative interview data, the contextual information put forward in Chapter 5 and mapping this to the sociological perspectives within conceptual framework for this research.

6.2 Embedded in local development market networks

This chapter and the next, explore the social processes that frame developers' decisions. Crucial aspects of this perspective are built on the idea that economic decisions and their outcomes are embedded in social relationships and the web like structures of relationships known as social networks (Granovetter, 1985; Adams, Leishman and Watkins, 2012; Henneberry and Parris, 2013; Mosselson, 2020; Varna, Adams and Docherty, 2020). This view is grounded in the idea that development markets are deeply social and institutional (Guy and Henneberry, 2000; Beauregard, 2005; Adams and Tiesdell, 2010). Charney (2007) suggests that the first step in understanding the relationships and the network is to identify the local institutional framework because property development draws on largely "place-specific resources" (2007:1180). Chapter 5 laid out the contextual groundwork for the development market in Dublin during the period spanning 2010 to 2020. Most research focuses attention on public-sector relationships, nonetheless a lot of attention is more recently paid to the importance of private-sector network relationships. (Adams, Leishman and Watkins, 2012; Brill, 2020; Varna, Adams and Docherty, 2020).

Network membership is determined by the relationships that are developed through repeated project collaboration (Henneberry and Parris, 2013). Emphasis is put on the power of the private-sector network to act as channels that filter crucial information (Henneberry and Parris, 2013; Brill, 2020). The power of the relationships within this network enchances a developer's place-specific information and at the same time reduces uncertainty in the outcome of the project (Beauregard, 2005). This chapter draws heavily on these ideas.

The research presented in this chapter explores new territory in the academic literature by uncovering the conventional approaches developed by property developers operating in Dublin during the study period and the networks that enabled them.

The importance of end-user relationships and the role of intermediaries in providing information and making crucial connections is not contested here. A central concern is how the information gained through these network relationships influence short-term decisions. An analysis of the qualitative data revealed locally significant network members over the

decade to 2020 in Dublin. The concrete ongoing structures of relationships (Granovetter, 1985) that developers had within the development market included, funders, end-users and professional intermediaries. These will be dealt with in turn.

6.3 Developer – funder relationships

Even though little empirical evidence is available on the significance of funding to developers' decisions, its importance widely understood. Charney (2007) emphasises how access to capital and local embeddedness are decisive factors for the initiation of development projects. Antwi and Henneberry (1994:238) highlight its relevance for individual developers "Developers are not free agents, of course. Their ability to pursue development decisions, formed on whatever basis, is contingent upon an adequate supply of development finance". This section explores developers' attitudes to this and how they used their social networks to channel information so that funding for their projects was arranged and development projects were driven forward. Chapter 5 drew attention to the fact that the banking sector in Ireland did not operate under normal market conditions over the decade. What follows is developers' accounts of conventional approaches to funding property development in Ireland under these conditions.

Two crucial aspects to this are essential to understand the power of the property developer and why examining their decision-making is necessary. Firstly, developers must choose, and have the capacity, to participate in the development process irrespective of the prevailing contextual environment. Anecdotal evidence provided by seasoned local journalists reveals their views on developers' reactions to market collapse "Now a property developer had to do what a property developer had to do: try harder" (McDonald and Sheridan, 2008: 263). The dynamism and resilience are echoed in a statement by PD10 in describing some of his peers.

> "(Names a high-profile developer) bought (names a site in Dublin that sold for €120m in 2018) had no equity in it. All the big developers bid on it, they are just dying to develop. That is what they do."

By spotting opportunities, (Adams & Tiesdell 2013), organising, and operationalising development, the market cycle begins, and economic growth occurs. Secondly, developers' decisions to direct this capital to a particular location or sector at a specific time determines how this takes place. Chapter 5 drew attention to this in the period leading up to the GFC

when office developments moved from the traditional prime locations out to the suburbs (MacLaran and Killen, 2002; Attuyer et al., 2009). This is reiterated in the analysis of the development market database which revealed the pattern of development in Dublin 2010 – 2020. In the early years of the decade the collapse in the domestic funding sector pointed to a sharp contraction in development output (see Fig. 5-5). This focuses attention on developer attitudes to the development funding network.

Some developers are outside this part of the network, these developers are not involved in raising funding on a project-by-project basis. They are investors who develop property and have equity funding resources from either the public equity market (REITs or public limited companies) or property investment funds that access pooled sources of funding. The latter may use debt for the short-term, but their funding model is fundamentally different. This type of developer was a significant component of the development market during the decade 2010-2020, responsible for almost 37% of private development market output. As a result, the following discussion relates to those developers involved in raising their development capital (10 developers).

6.3.1 Embedded in loose social and deeply personal relationships

This section explores the nature of network relationships between the developer and those that provided finance for their development projects. The interrogation of network relationships draws on the conceptual framework where looser, more informal and personal relationships point to higher degree of embeddedness. Added to this is that trust, built on reputation and experience is a key component of network membership (Adams, Leishman and Watkins., 2012; Henneberry and Parris, 2013; Brill, 2018; Varna, Adams and Docherty, 2020). This section focuses on the nature of the relationships, the role of trust and the extent to which developers were embeddedness in this network.

The place-specific dimension of this aspect of the network needs highlighting here. The institutional framework outlined in Chapter 5 for development funding drew attention to the conventional banking practices in Dublin at the time and the importance of "relationship-banking" (Nyberg, 2011:23). Banks that relied on this approach to lending emphasised the importance of providing services to their local longer-term customers. The nature of the relationship between the developer and lender drove the lending decision. This is in contrast to the more traditional approach where an application of bank lending criteria, outlined in bank lending policies and procedures, determines the quality of the proposal and drives the decision to lend. Despite criticisms around the practice, there was

an enduring quality to these relationships that are shown here to exist from one cycle to the next.

Though many examine network relationships (Adams, Leishman and Watkins, 2012; Brill, 2018; Varna, Adams and Docherty, 2020), the quality and integrity of the developer-funder are less frequently emphasised. This research reveals that developer-funder relationships are more informal than formal and can be described as being either 'deep and personal' or 'loose and social' depending on the nature of the funding. This accords with Henneberry and Parris' (2013) differentiation of networks into networks of "communality" (deep and personal based on experience) and networks of "sociality" (2013:233) (more numerous and built on reputation).

The data reveals the desire to form trusting relationships with many *lenders*[40], lenders want to lend and developers want to develop and they trust in each other's ability to carry out their role in the process. Once trust is established then potential future collaboration opportunities exit. The interview data suggests a wide variety of international debt funders in the market at the time providing evidence of networks of "sociality" (Henneberry and Parris, 2013:233). The following illustrates how widespread and numerous relationships were and because these lenders were new to the Dublin market the depth of the relationship was limited. These investors and funders in the market were looking to partner with property developers the relationships and connections were made through the developer traditional domestic banking sector. The following comments provide insights in this regard:

> "There are about 50 foreign lenders in the market at the moment, all with cash to lend" (PD05)
>
> "International investors just want to know - can we pour money into it?" (PD10)
>
> "I bring in a funder, they provide the debt and sometimes an equity stake, I provide the site, I know the funders and

[40] This reference to *lenders* distinguishes between the two types of funding that are used to varying degrees for property development projects - debt and equity. Development lending is provided by banks and other less formal debt funders. Debt is provided over a specific time period, and in return the lender receives an interest rate return to compensate for the use of the capital. Equity funding by contrast indicates ownership in the project and therefore shares in the profits. (Havard, 2014)

> I've done 6 deals like this so far with different guys"
> (PD01)

PD10's comment suggests scant attention is paid to the details of the development project, the emphasis is on the scale rather than the opportunity. These comments indicate that the negotiations are fluid and fast and they contrast sharply with negotiations with the public sector explored in the next chapter. PD01's comment reveals that different funders were used and that the network is loose, not tightly focussed on one or two members of the network. Relationships are less personal, the strength of the relationship is based on the fact that they trust each other to lend and develop, more importantly, they have common agendas and network interests (Varna, Adams and Docherty, 2020). According to PD10 international funders wanted scale. He elaborates and gives an example of the scale of international investment.

> "These guys want to give you money. There is so much money in the world at the moment. You are now in a situation where no one is putting their money in the bank because interest rates are negative." (PD10)

Developer professional funder relationships are characterised by informality, trusting that the other can play their role in the process. PD04 outlined their attitude to debt and their approach in the early years of the study period highlighting the importance of trust that was built on reputation.

> "We had a facility with Anglo[41], but we wouldn't deal with them. We never went into Nama." (PD04)

The 'facility' refers to the fact they had an account that they could withdraw funds from. The fact that they "wouldn't' deal" with Anglo Irish Bank is interesting as they were seen in the market to behave irrationally. The following statement about not being in NAMA reveals that Anglo Irish Bank was synonymous with development loans that ended up in NAMA (Chapter 5). This developer valued trust in their choice of banking partner, they chose not to deal with Anglo Irish Bank as, based on their reputation, they could not trust

[41] Anglo refers to Anglo Irish Bank, one of the main banks involved in over lending on Irish property in the years leading up to the GFC. Refer to Chapter 5 for further details.

them. This supports Adams, Leishman and Watkins view that reptuation is an important mechanism to "generate and reinforce trust" (2012:719).

Conversely, equity funding sources were provided though a different type of relationship, one based on personal relationships and was characterised by the trust built over the years. A striking feature of this comment is the reference to “internal sources” and “individuals we know”. When questioned further on this he revealed

> “people like us and family. We have skin in the game, the family skin, the grandchildren, we don’t risk that” (PD03)

The idea that they have “skin in the game” reflects the role of equity funding in the development project, they are putting their own money into something with an uncertain outcome. It is interesting that he does not think that this is a risky thing to do. This developer never over extended himself during the years leading up to the GFC, and takes a very conservative approach to development which is revealed in other comments later in the analysis. The comment regarding “people like us” is very telling and reminiscent of the close-knit community and club-like mentality of different private sector actors (Brill, 2018). When asked to elaborate on the “people like us” comment, later in the conversation he revealed:

> “We know all these guys from golf courses, golf dinners but don’t socialise with them” (PD03)

The conversation moved on after this, and it seemed that this line of questioning would not yield anything further. Also, it seemed likely that had this line of questioning continued, there was a risk that the open nature of the conversation may close down the interview. In the end it seems clear that his development profits were recycled into the business and when necessary, “people like us” provided additional equity funding.

There is a distinction then between money reinvested from family and “people like us”. The latter comes from a network of relationships that is not deeply social as they do not “socialise with them”. This is evidence of relationships between individuals loosely in each other’s social orbit but not deeply personal like family relationships. The reference to golf dinners and courses seems reminiscent of a more distant age, younger developers never mentioned golf courses or any other “network node” (Varna, Adams and Docherty, 2020:82). P05 a developer in his mid-30s outlined where his equity sources came from:

> "Usually people who have done well in business. The connections are made personally or private banks or finance houses connect them with me" (PD05)

> "That equity is the first to be paid pack and always paid back" (PD02)

PD05 describes a very loose arrangement that can only be explained by the fact that he has a public profile due to the extent of this development projects. Despite this, it is not clear that other semi-social occasions where an agents, lenders or construction professional may create such connections does not take place. PD02's comment illustrates that even if the developer had to forego some part of his own return, he must repay personal equity contributions. This illustrates the power of social rather than legal forces to uphold this contract, this developer is keenly aware of the importance of trust in this relationship (Adams, Leishman and Watkins, 2012). Despite the fact that there is no obvious obligation to repay the capital, he knows that his reputation would suffer if he fails to repay this type of capital. Thus reputations, like trust, are socially embedded and operate primarily through social discipline.

Family money - strong ties

During discussions with local developers, reference was made to 'family money' or '30-year money'. For some developers, this rich seam of capital was accessed through familial relations. For others, it related to personal connections to wealthy families that had successful businesses in Ireland. This is an extremely interesting network of relationships that was found to be based on deep trusting relationships that were highly valued by developers. This also had the power to confer competitive advantage in times when access to resources was limited. This research supports Adams, Leishman and Watkins (2012) findings that competitive advantage is enhanced through these networks of relationships. Though Adams, Leishman and Watkins (2012) focussed on how this was achieved through sourcing future land supplies, here the focus is on sourcing future capital supplies. Nonetheless, the evidence points to the fact that developers rely more on networks of relationships, and not markets, to gain competitive advantage.

A novice developer acknowledges this access to equity gave him a significant advantage in the early years of the study period.

> "I had unlimited money in 2012. I raised family money – long-term money from the states (US). This is the nicest equity you will ever meet. They (his family) invest what they have, and if you lose it all, that is fine." (PD10)

Although this sounds arrogant and could be attributed to general interview boasting, he later admitted that other factors gave him an advantage.

> "I was young enough and had the energy to do it (develop) and raise money". (PD10)

During the first few years of the development cycle (2010 to 2015), it was clear that only those developers that had access to capital, such as family money, could buy land and develop. This is illustrated where PD03 states

> "A lot of people at this stage were in NAMA, and they were restricted on what deals they could do, and we were not and had no binds on us". (PD03)

As elaborated earlier, this developer preferred not to use debt and funded all his development costs from his own equity, his network of investors, and trading gains from selling land or property he owned. As a result of their decision not to rely on bank funding, they were free to begin developing again. It transpired that other developers managed to sell up before the market collapsed in the GFC. A developer describes the situation

> "It depended upon your position, you had some developers that seem to know how to see around corners, they timed their exit from the market in 2007, and they had capital and sat and went out acquiring property in 2012" (PD08).

Developers were intensely interested in the activities of their peers, always learning and positioning themselves. PD10 had the same view

> "(Names two developers) just wait until the time is right, they have the money and then develop. (names another developer) is the most successful developer in the country. Insanely wealthy. No board, no plc. They are rare, but they do exist. It is wealth built up over time. It takes a long time

> for people to build up money and not lose it in the cycles." (PD10)

These two comments revealed deep admiration for these developers who just 'wait until the time is right'. This 'mystical instinct' (Guy, 2002: 252) is explored in the Chapter 8. This statement reveals that these developers watched what others did to not miss vital cues. During the interview, PD10 revealed that he had developed a personal relationship with the developer he had named in this comment. They socialised together, traded stories and crucially swapped contacts to deepen their level of embeddedness in the network.

PD04 illustrates how equity capital is needed in the initial stages of developing a new area

> "There was not an out-of-town business park in Ireland at the time. When you have 10-year money, you can do this; it had to be funded without debt. It was all funded by cash." (PD04)

Both PD03 and PD04 are funded in the same way – through equity contributions; the difference is that PD03's contributions are based on personal relationships, whereas PD04's is a more formalised platform of investment capital through a local long-term investment advisor/broker firm. The essential characteristic is that both developers can make all the development decisions.

This section reveals two crucial conclusions. At different times during a development cycle property developers draw on different social networks for resources, from these comments it is clear that they are personal and have a latent quality. This chimes with Henneberry & Parris (2013) who distinguished latent (more social) and project (more professional) networks. This section provided evidence for the importance of funding for initiation of projects (Charney, 2007). Moreover, it revealed a nuanced approach to how funding is obtained through networked relationships. This ranged from a preference for using equity sources irrespective of their financial standing. Crucially it revealed that relationships with debt funders were characterised by informality and a looser quality, reminiscent of Henneberry and Parris, (2013:234) social layer of relationships or "network of sociality" where developers had relationships with many funders and each project required its own funding. By contrast, equity capital was treated reverentially and gained from deep long standing, often personal relationships. As such they are defined as being the deeply

embedded and reminiscent of the networks of "communality" in that they are personal relationships built up over time through experience. (2013: 234)

6.3.2 Networks as information filters

The development process embodies a set of formal and informal rules (Keogh and D'Arcy, 1999). Evidence from the interviews revealed that the developer funding network of relationships delivers funding specific information that enables norms and conventions to emerge, through repeated use they are learned and established as conventions. Interviewees revealed that members in this network did not include the domestic banking sector which is in sharp contrast to the period leading up to 2010. Instead personal and private equity both domestic and international played a crucial role in this network. The qualitative data uncovered evidence that suggests that informal rules and conventional approaches to funding evolve and develop from one development cycle to the next. The relaxed nature of this network is a marked difference from the planning and regulatory network discussed in the next chapter. Before the GFC, property development in Ireland was funded primarily by the leading domestic banking sector. This was the conventional approach at the time. Lending for property development created a peculiarly Irish development market and developer.

Through the network of social relationships, information about the rules and norms are pieced together, reinforced and transferred across development cycles "through the practice of episodic project collaboration" (Henneberry and Parris, 2013:231). One developer identifies the fact that in the previous development cycle, there was an Irish approach to development lending, which he considered negatively affected the overall market:

> "from 2003 onward, the Irish banking sector went on coke induced loan to deposit ratios that were about 135%[42] that made their business very precarious, and there were clear signals to anyone who could read economic stuff that it was entirely unsustainable, and this was entirely separate to what happened to Lehman brothers. The behaviour of many banks in Europe was not quite as bad as the Irish banks, but this fuelled lots of easy money" PD09.

[42] LTV of 135% refers to a situation where the bank lends 135% of the value of the property/ land.

Many of the developers interviewed for this research were active during the 10 years to 2020. In the previous cycle Irish developers became large-scale property investors. The prevailing informal rules and heavy reliance on relationship banking enabled this transformation from developer to large-scale investor. During this era, property developers refinanced their completed property developments with longer-term mortgage-type loans secured with the income generated from the property. Chapter 5 outlines an overview of the old funding model in Section 5.3. The NAMA annual accounts revealed the extent of this practice, 135 debtors had outstanding nominal debts of more than €100 million, 3 of these had obligations of €2 billion, and 9 had debts between €1 billion – €2 billion. (NAMA, 2011). The importance of the developer funder network deserves greater attention because of its power to unlock capital resources that can act as a springboard for subsequent development opportunities. One of the most striking aspects of this informal network of relationships is how it responded very quickly to the fact that the banking sector could not lend in the first few years of the decade. This vacuum was filled with international capital predominantly from UK, US and to a lesser extent Asia. This was highlighted in Chapter 5, and what follows is how local developers accessed this capital to develop new ways of raising development finance, which had the indirect impact of drawing capital into Dublin. The role of the network in transferring this information is of significant interest and the discussion now turns to shed light on this.

Throughout the interview with PD10, it became clear that he was clearly what Henneberry and Parris (2013:231) called an "encultured insider". This developer worked in his highly successful family business related to property and construction, in the time leading up to the GFC. He was intensely interested in our discussions, and his interview was one of the longest at over 3 hours. Here he also identifies a very 'Irish' approach to development during that time.

> "The Irish property development model is very different to one that operates in other countries……you bought land and got planning on land then you built then you refinanced then you kept it." (PD10)

The information gained during this interview underscores the notion that there was an 'Irish' development market funding model. Before the GFC, in Ireland, private sector developers were encouraged to become investors through refinancing in the domestic banking sector. This is borne out by the information contained in Chapter 5.

This extremely powerful informal developer funder network yielded several important insights. Firstly, the network acted as a conduit for information regarding "how the system worked" (PD10). This idea of establishing how the system works covers vast policy, social and economic territory and is evidence of how these networks help to filter noise and information locally and for international investors (Brill, 2018). Secondly, it provided connections between local developers and international funders. This also clearly underlines the role of developers as the "linchpin" (Henneberry and Parris, 2013:240) in connecting with capital providers and directing it into different projects and locations. PD10 outlines below how vital network relationships were made.

> "Years ago (2010, 2011), we were managing a lot of assets for banks and third parties as we were one of the few people that did not go under in the crisis …..The bankers dealing with the fallout from 2008 arranged the roadshows; connections were made through these relationships." (PD10)

PD10 had a relationship with the domestic banking sector through their construction business. Here he outlines how he was introduced to other funders through this network. International funders that wanted to develop and invest in Ireland contacted domestic banking executives. Through these connections the web of relationships in the network extended its reach. Connections were made between domestic developers and international funders. This (international) lender to (domestic) lender connection is interesting. Despite the fact that the Irish banking sector suffered significant reputational damage after 2008, the strength of common agenda and purpose resulted in a foreign lender reaching out to a domestic lender to connect in to a local development market. This also illustrates how international lenders understand the importance of partnering with a developer who is embedded in a local development market and chimes with Brill's view of how these actors recognise "the importance of locally contextualised information for developers and the relevance of understanding how developers learn how to operate in a place" (Brill, 2018:6).

This concept of 'road show' is descriptive of a series of bilateral meetings and is generally associated with large-scale private sector funding. The role of the banking sector in this is not to be underplayed. In Chapter 5, attention was brought to the fact that international investors arrived in Ireland. However, few drew attention to how this happened. The

statement is clear evidence of the power of the private sector networks to filter information regarding future business partners.

Conventional wisdom dictates that the benefits of using private equity capital to partially fund development costs is generally considered to be control over decision-making in the development process. The interview data reveals a variety of attitudes to risk that relates to how developers organise funding for their developments. The evidence reveals that personal relationships are crucial for accessing this capital. This chimes with Henneberry and Parris, (2013) identification of role that the social layer of relationships play during the initiation of a development project.

Despite popular opinion, the evidence reveals that some local developers chose to fund their developments exclusively from their own equity sources. The developer funder network extends beyond the banking and internal investors. Here the evidence reveals that it extended to personal networks developed throughout a developer's career or funded by pooled equity sourced through investment brokers. Some comparisons can be drawn between PD03 and PD04. Firstly, they have a lot of experience developing in Dublin. Secondly neither developer was in NAMA. Lastly, the data revealed that they both benefited from accessing equity capital which gave them an advantage during times when debt funding was not plentiful. PD03 stated his views on funding

> "I have a huge issue with borrowing money to develop. The max you will make out of a building is 10 or 20%. The risk is too great".

Later in the discussion, he outlined

> "We do not go near banks. We did a small €2 million loan after the recession as we were down to 10% of our income. We would always get on with equity contributions. Most of the funding is internal sources or brought in from individuals that we know" (PD03)

Though there is never any mention of developers not using debt, other developers were aware of this through information they gained in the network. Here PD01 discusses his peers:

> "Some developers, older guys, only do cash – no debt involved in the business" (PD01)

> "If you look at the likes of say (names an international lender), who we are working with or the likes of (names an international developer) they might not hold debt. They might just use their funds." (PD06)

This supports the view that PD03 and PD04 are not the only developers to fund their operations this way and at the same time illustrates the efficiency of the network acting as a conduit for information educating and informing on different developers' methods of carrying out their developments.

PD04 did fund with short-term debt. However, he acknowledged how their success as developers could be attributed to their access to long-term investment capital.

> "We know that we have the luxury of doing this with 30-year money[43]".

Most developers interviewed used some form of debt to fund development costs.

> "Monies are all ring-fenced equity and debt on each site, and they are all different and stand-alone." PD01

> "The site is funded by (names a lender). There are about 50 foreign lenders in the market at the moment. There is no profit share, fee in fee out interest rate is all that is required." PD04

> " So, in general, the general principle in buying a site is, can it be funded. There's no point in acquiring a development that would not be supported by development finance. So, all the sites that we develop are funded by debt." PD06

However, PD09's comment illustrates the flexibility and rapid response required by developers.

[43] 30-year money here relates to long term equity contributions that are used by the developer.

> "Sometimes you have already bought the site before you go to funders, you have to act fast, and funders are slow. Other times you don't buy unless you have the funding." (PD09)

When speaking about funding, developers gave the impression that this was extremely easy to obtain.

Next attention is drawn to developers' views on what drove international funders' decisions to invest. As outlined earlier, PD10's comments revealed that international lenders had access to large-scale funds and had a strong desire to invest in development projects in Ireland. Here he gives an example of the scale of international investment and the developer's role in directing this investment.

> "I had six sites and (names an international investor) came over to do a roadshow. Now he gets $44m for an annual salary. And I am showing him a site valued at €400,000 at the time. It costs his company €300,000 a day to have him here. These guys want to give you money. There is so much money in the world at the moment. You are now in a situation where no one is putting their money in the bank because interest rates are negative." (PD10)

Ignoring the bravado in this statement, it illustrates the apparent scale of capital that was available to the investor that he was introduced to. If it cost his company $300,000 per day to send him to Ireland to view development opportunities it would seem that the sites this developer was offering him were too small-scale for his purpose.

This section has uncovered a lot of new evidence regarding the manner in which local property developers raise funding for their development projects. It has illustrated the power of the local informal network to access capital, whether that is equity or debt. It also shines a light on the beneficial source of wealth – 'family money'. This funding source is vital when standard debt funding typically is not – at the beginning of the development cycle. Having access to this allows developers to buy land at discounted prices. What is clear is that many developers may have wanted to buy land at this stage

but did not have access to this crucial source of funding. Next, attention is turned to local developers' attitudes to the role of trust and the nature of the relationships in this network.

6.3.3 Language, culture, and Influence

A striking characteristic of private-sector networks is how codified language and specialised calculative practices are used during transaction and funding negotiations. A cornerstone of the socio-cultural dimension of the conceptual framework used in this thesis is that markets are constructed out of social processes, not something abstract, acting independently (See Chapter 2). This view is grounded in the old institutionalism where prices and values are as seen as social conventions that depend on habits, ideas and technical processes of valuation (Hodgson, 1998).

Related to this is how market transactions are performed through the use of calculative practices such as the production of portfolio benchmarks to measure performance, or financial viability models that are capable of producing site values or profit metrics such as IRR, NPV or profit on cost[44] (Smith, Munro and Christie, 2006; Wallace, 2008). Henneberry & Roberts, (2008) illustrated how the technical practice of benchmarking had a constitutive effect on the property market by influencing property investors' locational preferences. Smith, Munro and Christie (2006) focused on housing transactions and the role that intermediaries had in performing the house purchase transaction. McAllister et al., (2013) illustrated how the financial development viability modelling is used by planners to "demonstrate governmental rationality". They suggest that existence of the financial model provided "a façade of technocratic rationality" that helped to justify planning policy. (2013:538)

All of the interviewees in this research were familiar with these calculations and performance metrics. The first interesting aspect was that local valuation firms played minimal roles in carrying out complex calculations and valuations on behalf of developers. A preference was noted for in-house cashflow and viability modelling. (PD09, PD04, PD01, PD08, PD10, PD11, PD13). That is not to suggest local intermediaries play no role. Section 6.3 that follows, explores that network of roles and relationships. It is perhaps unsurprising that this function is not contracted out to the local firms, given the competitive nature of the land and property investment markets. Doing this may reveal investment sentiment and specific inputs thereby surrendering considerable power to

[44] IRR or Internal Rate of Return, NPV (Net Present Value) and profit-on-cost are normally cited as profitability metrics used in property development viability modelling (Crosby, Devaney and Wyatt, 2020).

agents. The following reveals developers' attitudes to these practices and their role in decision-making.

Two local developers (PD05, PD06) outlined that cash flow analysis and the associated profitability metrics are only used to secure funding or to get approval to go ahead and develop. This links back to the conceptual framework used in this research and is evidence of how the calculation of specific development appraisal performance metrics can have a performative effect on a transaction (Smith, Munro and Christie, 2006). Frequent references throughout the transcripts indicated that certain metrics or specific numbers must be generated, and a threshold must be reached to obtain funding for a development loan. By distilling the lending negotiations down to a hurdle rate that must be reached, this research argues that the defining feature of such calculated numbers are their ability to transform a diverse and complex processes into a single financial figure and points towards an impersonal logic that implies that they are objectively arrived (Miller, 2001).

PD05 outlines their approach to the appraisals, calculations and development viability models:

> "We have our own excel models. We have accurate information as we use our numbers (construction costs). I never ever look at cashflows to make decisions; they are only used for the banks to secure funding. My CFO and their team do them, but I don't ever think about, or use them." (PD05)

PD06 concurs that these profitability metrics are used mainly to negotiate borrowing obligations.

> "I have to use them (profitability metrics) too if I'm buying a site. Like, it has to be about 15% profit or IRR percentage on costs, you know. There are the parameters that banks set, they are very important, so if it doesn't hit those parameters, then they won't put senior debt on the land or the development." (PD06)

This is a very interesting way of describing the process. Internal bank regulations and credit committees set the lending parameters; developers estimate the expected cashflows

knowing that if specific benchmark return numbers are not generated, they will not achieve the desired funding to move forward.

In this example their modelling of the development project achieves a specific profitability benchmark, a 15% profit-on-cost. The use of these profit metrics as culturally significant symbols links back to the conceptual framework in this research. There is a cultural significance to these calculated numbers and once trusted, there is a deeply held belief in the objectivity of calculations (Miller, 2001). Therefore, the uncertainty in the inputs and process is diminished. This is an example of how cultural significance can be attached to numbers and calculations which forms part of the ideas contained in the conceptual framework for this research. This has the effect of absorbing any uncertainty that exists in the proposal with an enduring belief in the technical production of a single number. (Carruthers & Espeland, 1991).

PD10 illustrates the importance of the numbers for focussing the discussion with funders and investors. Here he reiterates a debate he had with some private equity investors.

> "We get money off private equity who want the deal to sound like it makes sense. Of course the numbers don't work."

Having a deal that sounds like it makes sense is reminiscent of McAllister et al.,'s (2013) view that the calculations help to demonstrate rationality to the other parties in the lending negotiations. These calculations are built on predictions and expectations of values that have yet to be obtained and rental income that has yet to be negotiated. This can only occur at some unknown time into the future.

He outlines that in this particular deal, the development will take eight years to develop, rent and ultimately sell as an investment. He knows that it is likely that market values will fall throughout this period, but there is a tacit understanding between the two parties that the numbers are just the language that is used to focus discussion on an otherwise complex proposal and influence the deal.

> "It is going to be eight years and probably will go through a fall. We often joke about an equity guy who wants 20% IRR. He asks for 20% hope for 15%, expects 10%, delighted with 5%. No one looks back. The market cures everything."
> (PD10)

The very telling comment at the end of the quotation, is that no one does retrospective analysis and anyway, "the market cures everything". This underscores his approach to rationalising losses by attributing the fall in values to the separate abstract market implying that he and other market participants played no role in this. There is a flippancy to this comment that suggests that he does not necessarily believe this, but it is commonly used as an explanation. This implies that they are used to attributing less successful outcomes to the abstract market cycle movements as if their actions had nothing to do with changes in values.

A loose application of the residual calculation helps establish a general profitability level in a scheme. The more advanced, increasingly complex detailed profitability metrics and spreadsheet calculations are used as a tool to help persuade and influence funding decisions. This enables funds to flow so that the development can go forward.

The institutional investors revealed similar attitudes and conventions to the calculations. However, a notable difference is that there is an internal organisational culture that has influenced how this occurs. This contrasts significantly with the experience of local developers. A significant milestone in this culture is gaining approval to go ahead with a development from an internal acquisitions and development sub-committee of their board. PD07 develops on behalf of a domestic property investment fund. Although she does not have to raise bank debt, she does need committee approval for her development decisions. She outlines what the quantitative analysis is used for:

> "The spreadsheets are how I get approval to do things, so they are very important" (PD07)

It is clear from this statement that the spreadsheet's existence is essential. This carries considerable weight in these committee meetings. Even though she and her team create the spreadsheet, its existence adds objectivity to the decision; it on its own is how she gets approval. (Carruthers and Espeland, 1991)

PD07, the primary decision-maker for a property fund, says she uses these calculations for approval from internal committees

> "I have to say to the committee, you know what your yields are, what contingency have you built-in. Does it stack up? I know it is a good scheme, but I have to do due diligence for them." (PD07)

These comments revealed that calculations, spreadsheets, and so-called due diligence are used to help influence a decision as opposed to what a developer uses to decide to go ahead with a project. This is evidence of the cultural significance of these numbers, and their performative power in demonstrating rationality in their development projects (Smith, Munro and Christie, 2006; Wallace, 2008; McAllister et al., 2013). Attention now turns to how these views are split between novice and experienced local property developers and institutional developers' roles in this network.

6.3.4 A diversity of strategies and behaviour

The conceptual framework and overarching theoretical perspectives for this research acknowledge a diversity of behaviours (Hodgson, 1998; Coiacetto, 2001; Guy, Henneberry and Rowley, 2002). Specifically, the distinction between locally based developers ("place-based") and institutional developers ("non-place-based") is used here to shed light on different types of behaviours that might exist.(Adams and Tiesdell, 2010:199)

What is striking about the funding network is that institutional developers (non-place-based) appear to be mostly outside it. Funding for this type of developer comes from internal sources (typically raised either through the public or private equity market on a large scale) domestically or internationally. Two institutional investors were funded internationally; and the other two sourced their funds domestically.

Throughout this study, it was clear that local property developers sourced project finance from the usual funding channels – equity and debt. Table 6.1 below summarises the attitudes discussed and distinguishes between novice and experienced developer responses.

Table 6. 1 Local place-based private sector developer attitudes

	Experienced Local Private *More likely to*	Novice Local Private *More likely to*
Conventions and influence	○ have a well-developed network of equity partners that can be relied upon. Often referred to as '30-year money' or 'family money.'	○ have a greater reliance on debt
Relationships & Trust	○ develop long-term relationships ○ understand the role of trust being more important in raising capital	○ be well connected where trust in currency of information is important ○ put less emphasis on trust for for debt partners

By contrast, local property developers are organisers of all aspects of property development. Raising funds for each development is a crucial skill, and this network is essential for positioning at vital times in the market cycle. Interestingly, novice developers have to rely heavily on debt finance to a greater degree; by contrast, experienced developers relied on habits that favoured their equity contributions. The other network that came into strong focus throughout the interviews was with end-users of the properties being developed. For some developers, this was institutional, and for other residential developers, it was homeowners. For some, it was both these networks.

6.4 Developer – professional intermediary and end-user

Owner-occupier, investor, and institutional buyer are all terms that are used to describe the eventual buyers of properties that are developed. In addition, when selling to institutional buyers, property developers are also interested in the tenant market. Related to this is local intermediaries' role in connecting end-users to developers and how this network acted as a real-time information conduit for both parties. These roles all form part of a healthy property market. This section focuses on these relationships and illustrates how property developers draw on local knowledge to establish a reputation that develops trust through their development projects (Henneberry and Parris, 2013). The importance of nurturing ongoing relationships with different agents in the market enables developers to gather up place and sector (space) specific information which reduces uncertainty. (Charney, 2007)

6.4.1 Embedded in loose, social relationships

The conceptual framework drew on the notion of different types of networks that are mobilised for development projects (Henneberry and Parris, 2013). Adams, Leishman and Watkins (2012) suggest that it is trust and reputation that binds the network together. The relationships in this part of the development network are often considered to be looser when compared with tight, personal relationships. The distinction between these two hovers on the nature of trust, reputation and the degree of collaboration between the developer. (Adams, Leishman and Watkins, 2012; Varna, Adams and Docherty, 2020). This section develops these ideas.

When discussing relationships with other professionals connected with the developer the nature of the relationship with property agents was revealed. PD08 explains the nature of relationship as follows:

> "[agents] come in and talk to me every so often. I may not have a close relationship, I deal with all of them. They know that I'm not going to use their brand for information and deals I'm going to use a person. There is a relationship element." (PD08)

This describes an ongoing, reciprocal relationship where information is offered and depending on its quality, the developer may decide to engage in a more professional relationship. The reputation of this agent is based on the currency of the information shared. This is echoed in a comment by PD05 outlined below:

> "I use (names high profile local agent), but you have to keep them happy as they might give you an off or on-market deal. Agents are a bit sneaky. They are there to sell things at the end of the day. They are competitive. (Names agency again) are most competitive on offices. (Names specific agent) is the man for offices. They are also very big for development land and office lettings. He did the lettings for (names a very large city centre letting to a US technology company). 10% of fees for him. Huge money. He's the man for offices." (PD05)

Again, these comments support the view that it is the currency of the information, whether it is market data or information on land for sale, that is crucial. If an agent gets a reputation for quality contacts or accurate market data a developer will nurture and value this relationship. This reinforces the view that in a general sense, reputation is the basis of trust (Adams, Leishman and Watkins, 2012). Developers also benefit from information and trust that they build up with an agent. The following quotation from PD03 illustrates how his reputation as a trusting business partner delivered a crucial contact for him.

> "[UK student housing developer] that wanted to develop student accommodation contacted me as they were badly advised by local firm of architects. [names a local agent] said that they could do business with me and gave them my details".

From this connection he developed a number of student accommodation developments using his local knowledge and the specialist construction knowledge from the UK developer. PD04 develops in a specific location and outlines how they have frequent meetings with local agencies and depend on their information.

> "Information also comes from agents' monthly letting meetings, what is take up and vacancy like. Constantly trying to gather quality information." (PD04)

Although primarily active in the owner-occupier residential market, PD01 watches all markets, adds.

> "Rents are unsustainable on the BTR (Build to Rent) market. BTR value was 20% higher than the individual break-up value. This market will soften as there is huge supply is on the way." (PD01)

When asked the source of this information, he outlined the following:

> "I get my information from lots of places, but I have lots of connections in the market. I know from land agents that prices are falling; they all say the same thing. I get rents and prices from my connections in the market." (PD01)

Later in the discussion, he outlines the other crucial element to their relationship.

> "Off-market deals are what I'm going for. So, I have a lot of connections in the market where if agents in the business know that someone is looking to sell quickly, then they can contact me". (PD01)

PD08 echoes these comments and illustrates the relative ease with which this developer can develop these relationships.

> "I have the contacts. I use them to source opportunities, on or off market. Speaking with people getting in touch with agents and land owners, who are struggling to get things moving. Chase stuff where things have fallen out of bed. There's no science to that its really just networking and getting a better relationship with people and letting them know what kind of assets you are looking for." (PD08)

Both experienced and novice developers had firmly held views on how and to whom they could sell different types of developments. They illustrate a keen knowledge of rental

values and expectations of where future supply will come in and how it will affect the rental and, ultimately, the investment value. This is evident in comments by PD02 below.

> "The reality is that you have a single-let office development; you have a lot of risks. Funds I deal with like multi-let developments as income won't fall off a cliff. The 10-year analysis will have income going down as supply fills the gap." (PD02)

This quote reveals this developer's market knowledge and what drives his strategies. He considers future rental streams against supply. A developer will need to potentially sell into this market in 2-3 years, whereas an investment fund will hold this as an investment for the medium and long term. The institutional focus comes from the strength of the income profile and not capital values.

PD10's comments reveal the level of activity and resultant market practices

> "The end users (names a German pension fund) are getting fed up with getting an OS^2 map with a note on it saying, 'would you buy this?' There are so many people in the market looking to buy the product. There is a difficulty in relation to who has it! And you don't want to sell too early." (PD10)

The last sentence in this quotation is very revealing and emphasises the importance of market timing for those developers who sell their developments into the market. It is essential for success to time market entry and exit accurately. This explains why developers are keen watchers of the institutional environment and end-buyers.

PD03 recounts how the market is not local anymore but global:

> "New York-based pension funds now own the two student accommodation developments in (names the area that he develops in). Money is now all US-based." (PD03)

The evidence here supports the claim that trust and reputation strengthen network ties (Adams, Leishman and Watkins, 2012). Relationships are more likely to be loose and professional where both parties are driven by a potential future collaboration. These relationships also have the potential to be mutually beneficial.

The developer end-user network is crucial for the real-time information it can deliver to developers. Most developers were keen watchers of all end user markets, irrespective of the properties they were developing. Developer investors (PD13, PD11, PD07) were more keenly aware and connected into the rental market. Developers who developed housing for sale spent a lot of time watching their specific market location. Nonetheless they all had views on capital values, government bond yields and even the retail market. This displays a high level of understanding for the interconnectedness of pricing between the different sectors of the property market.

6.4.2 Networks as information filters

To understand the specifics of the information deficit developers experience, PD08 recounted a real-life example. Here he comments on the relatively new private sector development opportunity in Ireland – the social housing market. Due to the lack of capital resources by local governments following the GFC, there was a growing demand for social housing. This comment reveals how this developer gets the essential information he needs and the importance of it being timely and accurate:

> "You are seeing that forward fund[45] happening in the social housing market. It is very limited in the data. (names the location of the building) transacted at 3.3% p.a., I can't base anything off that as there is no depth in it. Especially if it is on a site that you have no planning on. The depth of market transactions is just not there. You are gathering it in from your network. Fifty basis points[46] are massive. It could swing your land values by millions." (PD08)

This is a perfect example of the essence of decision-making in property development—uncertain information which lacks depth. However, a yield of 3.3% p.a. on an investment property results in an extremely high valuation, thereby locking in a good development profit. However, if you are wrong about this investment yield by even a half per cent, you could be in a loss-making situation. Crucially the network of professional relationships delivers location specific data, later he elaborates on how his network operated.

[45] A forward fund agreement relates to a situation where an institution agrees to buy a completed development before the building is built.
[46] A basis point is one hundredth of one percent; 50 basis points means 0.50%

> "It's an ongoing thing, I filter through all the local property agents near my sites" (PD08)

The network filters information about other developers. Developers keep abreast of what their competitors are doing. This research is vital for learning about developer conventions and approaches to achieving increased density or using the intricacies of the guidelines to achieve their objectives. When a new approach is successfully developed, less experienced developers observe and learn from it. Most discussions with developers involved discussions about other developers' behaviour and actions. This is one of the ways that the less "encultured insiders" learn the local rules of the game (Henneberry and Parris, 2013: 231). An example of this is illustrated below. The prolific developer PD11 outlines the process and shows how he learns and understands market movements. One of the ways that this is achieved is constantly monitoring developments and prices that are paid for sites.

> "The site market is the most-opaque market to try and figure out comparable values. I struggled to understand other developers when you look at why some guy can pay this and another will pay that and you dig and dig and you figure out, he thinks he can put higher density on it." (PD11)

Developers can be critical of the more aggressive approach adopted by some developers. PD03 is an experienced developer who considers himself to be different to other developers in that he doesn't try to "screw everything out of a deal" and later in the discussion he is critical of another prominent developer:

> "(names the developer) at the moment is trying to get the extra two stories and is trying to blast his way to the decision. It doesn't cost him anything to do this. He is putting pressure on the local authority to permit him. He must have built the foundations to accommodate the additional two floors." (PD03)

The lack of clarity and guidance on specific densities given on urban development sites forces developers to gain information and analyse all the market transactions to learn from the network how to gain advantage and exploit uncertainties. New conventions are learned and these examples provide evidence that can be used to further their own development projects.

Notably, this network of relationships contrasts with the developer funder relationship. The depth of trust is less than the personal relationships describe previously. Nonetheless, reputation for the quality of information came into sharp focus (Adams, Leishman and Watkns, 2012; Henneberry and Parris, 2013; Brill, 2018). This web is held together through the nature of the relationships and the strong private sector imperative of gaining information and contacts for mutual benefit, the essential ingredients of deal-making.

Most residential unit (as opposed to residential investment) developers do not develop a relationship with the eventual end-user of the house that has been built. However, it is long known that these developers rely heavily on their reputation to build quality homes. Throughout the interviews, it transpired that almost half of the developers that participated in this research developed housing for sale to owner-occupiers. These developers were at the coal-face of market demand as market data was keenly observed from the sales levels in their live development projects. One developer (PD01) also remarked

> "most Saturdays, I'll try to visit a show house if I can."

PD06 gets information in the same way

> "In (names the site under discussion) we have to block build, brick fronted, PVC windows, good kitchens, stone worktops. A good spec. I did a tour of 12 showhouses in the area, and there was one stone worktop. So, I knew then you don't put them in to (site under discussion). You get a feel for the area; then you do something slightly better to give yourselves an edge." (PD06)

Finding out what the market demand is in a specific location requires actual presence in that location PD06 explains that when they are

> "developing housing in [names another county], we don't supply white goods, but we do in Dublin; it is where the market sits." (PD06)

Once one developer increases the specification in a particular location and price bracket, to be competitive, other developers follow suit. This knowledge has to be gained quickly. A

number of the residential developers interviewed related how they really liked going to show houses. This is where they learned vital market data in their locale.

Most residential developers were tied into the end-user network by selling their developments and watching how quickly other developments sell. They were developing different types of housing in the same locality and phasing the sales in response to the absorption rate they were experiencing.

> "It is hard work to get 80 units away each year at the moment (mid-2019). Sales were robust in 2017, but it is much harder now. Instead of selling in 3 hours, we are now selling over four weekends." (PD04)

> "Sales always looking at sales. My own stuff, and how quickly they sell" (PD01)

PD 11 primarily develops large-scale residential investments in the city centre; he outlined that they have their in-house leasing data as they primarily develop and hold the assets. He stated

> "I generally have an analyst working for me and know what is happening on a day-to-day basis letting out our properties. How long it takes to lease them out." (PD11)

However, what is crucial to this discussion is that PD11 develops property to hold as an investment. When estimating a non-standard development in an off-prime location, obtaining information becomes more difficult.

These are all examples of how property developers rely on the basic end-user information gathered by actually seeing 'on the ground' what is happening. With this information they amend the on-site decision.

6.4.3 Acting on network information

Most developers interviewed were keen to discuss their views on this network from residential investment to owner-occupation, international and domestic investor appetite. The currency of the information gained through these conduits was undeniable; what follows is an illustration of how dynamic short-term decision-making can be as developers change the developments they were building to respond to changes in the end-user market.

During the latter part of the study period, many international and domestic institutional investors were active in the Dublin property market seeking the 'alternative property investment' as discussed in Chapter 5. The following illustrates how the institutional network of funders has a bearing on their development decisions. There are two critical aspects to the end-user/ investor network's impact on developer strategies. The first is understanding the depth of the demand for completed buildings in different property market sectors. The second and related fact is understanding tenant demand – the drivers of property income.

From novice to experienced, the views on international investors and how they drive the market are very consistently told – the institutional investors were in abundance in the latter part of the study period, and they were largely foreign investors. During this time, domestic investment funds began investing in residential properties, as illustrated in Chapter 5.

PD04 recounts a specific instance of the power of information gained from local intermediaries. Here he explained how he changed the exit decision on a particular residential development because of the information the local property agents gave them on the nature of demand in the institutional market. This type of development is a new departure for them, and it came about as follows.

> "At that stage, the PRS (private rented sector) market exploded onto the market. They (PRS buyers) were paying premiums of 10-20% (overselling to individual apartment buyers). (Names a domestic institutional buyer) being one of them. So, a lot of buyers are looking for PRS. We talked to (names an agency well known for brokering PRS transactions), and they gave us a view of where the value would be. Selling the houses would result in one value to us, but (the agents) said that a PRS would give us a premium on this. We had already priced it up before they went to the agents" (PD04)

Once obtained this vital information is incorporated into decisions and plans for their projects. PD04 is involved in developing a large tract of land in one location. This information gained from an analysis of their sales reveals how they will hone their developments in the future.

> "We find that the additional money we spend on external finishing costs an additional 6k per unit. But we get it back at sales prices endless times and on landscaping. It is the best bang for your buck" (PD04)

PD06 put forward the same point

> "If sales aren't hitting the target, you stop building." (PD06)

Developers' proximity to and understanding end-user demand is crucial to designing their overall strategy. However, an internal economic assessment of development potential is required. Evidence was provided here how crucial real time locally specific information filtered through this network informs on-site decisions.

6.5 Conclusion

It is worthwhile revisiting the sentiments expressed by Brill (2018) at the beginning of this chapter that private sector relationships are close-knit and depend on trust and reputation. This view supports the idea that private sector developers are socially embedded and understand the importance of knowing the "right people" (Brill, 2018:6). The central objective of this chapter was to examine the extent to which private sector developers in Dublin were embedded in social relationships. Embeddedness measures the degree to which actions occur and decisions are made in the system of ongoing social relations or network relationships (Granovetter, 1985). These networks are spatially and temporally specific (Beauregard, 2005; Charney, 2007; Varna, Adams and Docherty, 2020). Henneberry and Parris (2013) described how network relationships were professionally orientated and had a more social and loose rather than formal quality. Obtaining project funding (equity and debt) through these professional network relationships appeared easy, fluid and unproblematic. However, this type of funding was not plentiful until mid-way through the decade. This research has shown that deeper, more personal relationships were drawn upon during the first few years of the decade. Relationships such as these are more closely associated with "networks of communality" (Henneberry and Parris, 2013: 233) that were strengthened over years of successive successful "episodic project collaboration" (Henneberry and Parris, 2013:231).

By contrast, relationships between developers, end-users and professional intermediaries were more easily recognisable as networks of "sociality" (Henneberry and Parris,

2013:234). The interview data revealed that property developers in Dublin had periodic meetings with various agents to gain local, sector-specific market data, which provided the necessary "locational literacy" (Charney, 2007:1180) that developers possess. This information provided a connection to the market that informed short-term decisions.

The findings presented in this chapter also illustrate how property developers used the information gained throughout this network and address the central idea in the first research question. Property developers translated this information into fast heuristic devices that allowed them to make decisions quickly and could be easily recalled from memory and recounted to others in the network. This was illustrated by PD04's comment that institutional residential investment buyers were paying 10-20% premiums over individual unit break-up value of residential developments. Another example was PD04 firmly stated that monies spent on external finishes and landscaping for residential units were recouped several times through increased house prices. These rules were developed from real-time market evidence provided by professional intermediaries or from the experience they gained in their development projects.

Such heuristics can be used over and over again. However, others will change as market fundamentals shift. The findings in this chapter spotlight the importance of the role of information providers in a developer's private-sector network in generating heuristics to make decisions. In these examples, the short-cuts that were developed informed the type and quality of the finished development.

This idea also underscores the conceptual bridge between the two theoretical perspectives used in this research. Old institutionalism contends that rules of thumb are used where uncertainty exists. Heuristics are developed out of habit and experience, and habit is seen as a basis for recurrent action. Old behavioural economics contends that because of bounded rationality, decision makers routinely develop and use heuristics to make decisions.

The experienced decision-maker filters information and different opportunities that assist with the development of heuristics. This view enables the analysis of complex and imperfect information. PD04's comment above reveals how real-time market information gained from local agents gave him the necessary knowledge to allow him to make the market exit decision. This information resulted in him developing residential units for institutional investors instead of apartments for sale to end users.

Experience and habit were crucial elements in this decision-making process. Information filtered through this network generally related to potential funders and conventional approaches to gaining funding resources "how the system worked" (PD10). This chapter examined how developers used these networks to filter information to reduce uncertainty and navigate fast-moving market risks in their projects.

The qualitative information provided here illustrates that developers were sensitive to the cultural dimensions of unlocking funding from lenders and their internal credit procedures. This sensitivity was highlighted by developers' comments that revealed how they understood that producing specific culturally significant numbers was essential to obtaining vital resources for their projects. The performative power of these calculative technologies (IRR, NPV and profit ratios) was evident (Smith, Munro and Christie, 2006; Crosby and Henneberry, 2015). Developers' revealed that calculating these metrics was crucial for gaining funding from commercial lenders (PD05) or internal credit committees (PD07). This finding confirms existing research in this area.

This chapter explored another aspect of social embeddedness. The second research question concerned how social embeddedness could further expand on the place-based and non-place-based distinction. This research drew attention to the fact that local place-based developers in this study exhibited the most significant degree of embeddedness in private sector networks of relationships in Dublin between 2010 and 2020. The embeddedness of place-based developers was most evident in developer-funder relationships, mainly where private and family equity sources were concerned. Network relationships were strengthened when trust, mutual gain and the potential for collaboration were established (Adams, Leishman and Watkins, 2012). These developers gained a significant competitive advantage by being socially embedded in private equity networks. This influential network provided financial capability when ordinary sources of finance had dried up. Having the ability to gain crucial resources at this time highlights the importance of the developer's social networking skills.

Drilling further into the data revealed that the novices in this dataset also relied more heavily on debt funding. This conclusion has some far-reaching consequences, especially when viewed in conjunction with the fact that these developers were significant suppliers in the market. Chapter 4 describes the participants in this study. Table 4.10 illustrated that three developers who participated in this study were novices. Despite this, they were responsible for almost 20% of the total space developed in Dublin by the 13 developers

interviewed. One of these developers was responsible for almost 130,000 sq. m. of space in Dublin, or 2% of the entire development market between 2010 and 2020. Market concentration in novice developers increases the risk in the overall development market due to the increased amounts of debt they appear to use. However, since development funding in Ireland is no longer solely reliant on the domestic banking sector, systemic risk has a greater degree of insulation.

This chapter has highlighted the importance of developers being socially and culturally sophisticated and deeply embedded in their private sector networks to access resources. At the same time, it has illustrated how they transform market information into heuristics which underscores the role of the other actors in the network. Having focussed exclusively on private sector network relationships, attention is now turned to exploring the nature of developer relations with public sector actors.

7.1 Introduction

> "local specificities lead to varied institutional relationships between developers and state institutions in a global world of diverse developer types and development contexts" (Leffers and Wekerle, 2020:2)

Leffers and Wekerle's (2020) quotation above helps to pivot this discussion towards an analysis of the nature of developer and public sector relationships. This chapter continues to examine how embedded developers are in their local institutional framework and how this varies across the developer population.

The conceptual framework developed in this research considers embeddedness in terms of social relations between individuals and emphasises Granovetter's (1985) view that action and therefore decisions are rooted in a system of relationships that develop over time. Of particular focus here are developers' attitudes to this and how embedded developers are in their relationships with public sector actors such as planners. The ability to embed themselves into this network of rules and social relations and at different times throughout the development process, is seen as key to the success of a particular property development project (Varna, Adams and Docherty, 2020). Emphasis is placed on developer attitudes regarding the importance of relationships to gain information, exert influence, and crucially increase certainty over longer-term development outcomes. The conceptual framework draws attention to different types of decisions and events in the development process.

What is also brought to light here is the role of experience and how developers rely on strategies and make decisions that are proven to be successful over time. These strategies and conventional approaches are then transformed into habits (Hodgson, 1998). Chapter 2 drew attention to the importance of local development networks that are mobilised through the practice of "episodic project collaboration" (Henneberry and Parris, 2013: 231). By habitually drawing together the people and resources that are required for developing property (See Chapter 2, Section 2.3.2) relationships and networks of relationships are developed. This approach emphasises the deeply social nature of the development process (Adams and Tiesdell, 2010; Henneberry and Parris, 2013; Varna, Adams and Docherty, 2020).

This chapter addresses the first research question drawing on the social dimension of the conceptual framework for this research. Chapter 6 focussed on the network of private sector relations, this chapter now turns to public sector relationships and asks:

> *To what extent does property developers' embeddedness in local development market networks give them the ability to manage uncertainty and filter information, and inform decisions and strategies?*

To observe a range of behaviours (Hodgson, 1998; Coiacetto, 2001; Adams and Tiesdell, 2010) the conceptual framework uses the "place-based" and "non-placed" distinction. This chapter continues to build up the evidence that is used to answer the third research question:

> *To what degree can an exploration of embeddedness in local development market networks and use of intuition shed light on Adams and Tiesdell's (2010:199) "place-based and non-place-based" entrepreneurs?*

This chapter proceeds by focussing attention on the relationships that are fostered during successive development projects in a location and the extent to which these relationships are trusting. Then attention is drawn to how uncertainty in the process is managed by developers. Finally, a focus is put on how these attitudes resulted in an array of developer behaviours when faced with the same institutional environment.

The evidence in this chapter builds on the institutional framework for development over the study period. Specifically, Chapter 5 traced how the public sector went through a considerable amount of change that had the effect of empowering An Bord Pleanála and at the same time weakening the powers of local authorities.

7.2 Embedded or distant from the network?

The local nature of development has been the focus of several influential developer orientated research that has yielded many important insights and is an important aspect of the conceptual framework for this research. (Beauregard, 2005; Charney, 2007; Henneberry and Parris, 2013; Varna, Adams and Docherty, 2020). Chapter 6 has focussed on some of these and demonstrated the benefits of being deeply embedded in the private sector so that developers can "filter 'noise' – gossip, informal information and misinformation, trade stories and personal opinions – into market signals"(Henneberry and Parris, 2013: 231). It also emphasised how locally based developers could then draw on "place-specific resources" (Charney, 2007:1180) such as development funding. In this section the focus turns to how relationships and influence are used to build certainty into the outcome of their development projects.

Trust and reciprocity

The conceptual framework for this research considers that looser more informal and personal relationships point to a higher degree of embeddedness. Trust is considered to be a key component of this. However, trust is a nuanced concept. What was found in this research was that trust between local developers and planners was less related to the social dimension of the relationships and more on the trust in their "institutional dimension" (Adams, Leishman and Watkins, 2012:710). Höppner considered that the development of trust hinged on the perception of competence, honesty, reliability and reciprocity (2009).

A strong theme to emerge in this analysis of developer public sector relationships and the degree of embeddedness was, the extent to which some developers depended on a mutual trust and reciprocity. Once a developer is known and can be trusted to carry out their part of the agreement, then a professional trusting relationship ensues and local planners reciprocate. One developer (PD03) outlined the nature of his relationship with the planning department in Dublin.

> "We always do what they say. We don't try to push it. We now have planned for 300 BTR (Build to Rent) apartments." (PD03)

This reciprocal relationship deserves attention. There is a level of certainty built in to this developer's day to day activities, once he knows that he can trust in the actions of the local planning department. This also reveals how he equates the quality of the long-term relationships with the fact that he achieves the planning grants. In addition, the above indicates that the relationship is formal and respectful but socially distant. This developer focuses on the relationships he has fostered over the years with his consultants and learning about the rules, conventions and the way things are done in that locality. As a result of this he proudly states:

> "I have 100% record on planning" (PD03).

This developer relies on one or two trusted professionals for advice. He does not have in-house planning expertise, he contracts out the work. This is perhaps because he keeps his operation at a small scale. This developer outlined his views on the importance of ethical business practices and trust which stresses how, after many years as a successful developer, he understood the importance of the social nature of the development process.

Another developer depends on reciprocity in his approach to development (PD04), here he explains their approach:

> "Our philosophy is that whatever we promise them we must deliver as we will be coming back and back and back. We told them we were going to deliver the park, the playground, the school. We delivered. If you don't you can't go back. It is a brokered deal." (PD04)

This developer recognises the self-motivated rationale for being trustworthy and respectful as they will be going "back and back" to the same planning authority and they want them to know that they can be trusted to do what they ask.

A similar attitude of respect, reciprocity and formality was outlined by PD11:

> "We have a lot of experience with (local planning authority) over the years and if there are things important to them (the local authority) we respect that, and it is reflected in the planning grants that we have got over the years because we have done what we said we would do

> and not gone back on anything. A good relationship is important to us."

From these quotations it is evident that some developers understood and nurtured trusting and reciprocal relationships with local planners. This was reinforced by the reduction in uncertainty that these developers enjoyed in pursuit of their development objectives. Despite this, there was no evidence of social or personal aspect to these relations. Though the importance of this to the success of development projects is undeniable, it also limits the potential of the relationship.

PD04 has been developing in the same area for over thirty years and has a lot of experience with the local authority for the area. Though he understands the value of trust in each other's ability to deliver on their institutional commitments, the following comment reveals how socially distant both are. The next quotation reveals how he felt they were:

> "Very difficult people to deal with. Petty and not cooperative. They were not supportive of the (names the private housing development schemes). They thought it would detract from (local public housing scheme)." (PD04)

This chimes with Adams, Leishman and Watkins 's view that there was a "clash of cultures" (2012:715) differences between the two actors. In this comment he reveals that both parties were socially quite distant in that they were "difficult to deal with" and "uncooperative". Worse still was the implication that the planners failed to appreciate how a private housing development, built to a substantially higher specification than the local adjacent public housing scheme, could not detract from the public housing scheme.

Nonetheless, it seems clear that through experience, some developers realised the value of reciprocity and trust that they considered was linked to achieving planning grants (Höppner, 2009; Adams, Leishman and Watkins, 2012). A crucial distinction has to be made here, the trust described above related to the fact that planners would then reciprocate with a planning grant which is a trust in the "institutional dimension" of the relationship (Adams, Leishman and Watkins, 2012). This differs from the social layer of network relationships described by Henneberry and Parris, (2013). Though they concede that definitions are "not distinct, static concepts", the distinctly personal nature of this social layer is not evident in the developer planner relationships described in this research

(2013: 236). Throughout the discussions it was not evident that a deeper social relationship had been developed between developers and local officials. This contributes to the notion that local developer relations with planners over the period were not deep or personal or embedded.

Distrust and more distant relationships

Despite the fact that some developers developed a level of trust in the institutional role of local planning executive, when local institutional rules changed so too did the attitudes of local executives and local developers. Leffers and Wekerle, (2020) found that in Toronto, developers were embedded in and work to shape and influence planning policies. In doing this they stressed that it is the local specificities that determine the relationships between developers and the public sector. In their study they outlined how the majority of large development firms were deeply embedded in planning and political institutions to reduce uncertainty in an increasingly complex institutional framework.

In their study of housebuilder networks, Adams, Leishman and Watkins, (2012) focussed on how and why developers pursued closer relations. They found that one reason why housebuilders wanted to develop a closer relationship with planners was to break down the cultural difference between housebuilder and planners. Additionally, closer relationships are often developed with public sector where shared interests and mutual benefits can be identified (Adams, Leishman and Watkins 2012; Henneberry and Parris, 2013). This can be driven by the fact that the local authority is important in that they have control of available land for development (Adams, Leishman and Watkins, 2012) or as a result of organisational change in the local authority. Henneberry and Parris, (2013) illustrated how the culture of the local authority changed dramatically with a new chief executive. They felt that he was responsible for "a shift in the authority's operational culture that led to a closer working relationship, especially at strategic level, with local private sector actors" (Henneberry and Parris, 2013:239). This section illustrates how local institutional changes served to polarise local planning executives from private sector developers, deepening the cultural divide and making shared interests and mutual development objectives remote possibilities.

Chapter 5 drew attention to a number of changes that were made to the planning framework for development in Dublin throughout the decade under study. Specifically, this highlighted changes to planning guidelines implemented at national level. These included

the fast-tracking of housing developments of scale, the by-passing of local planning executive powers though SDZ legislation, and increasing densities in urban developments (see Section 5.2.1). These and other changes were seen to weaken the role of local authority planning departments to mere administrators of national policies (Moore-Cherry and Tomaney, 2019). At the same time it was seen to privilege private sector interests particularly the development sector (Lennon and Waldron, 2019). These had the effect of weakening local planning executive power which contributed to a deeper divide between the cultures of both actors. This led to more distant and distrustful relationships. The following illustrates developers' attitudes to the changes and how they were implemented at local planning executive level.

National guidelines on building heights in Dublin were dramatically changed in 2018 however, few developers believed that local planning executives were in favour of this. PD02 outlines his views on the new building heights:

> "I don't believe that the planners will be giving out much (building) height. (Names prominent developer) had to fight for it. Two things going on here, what is being said as policy and what is being delivered by planners – they are two different things. Take car parking, for example, ask most developers what they think about car parking requirements for PRS (private rented sector) and apartment schemes in Dublin and they will all say that it is pretty low to none required. Mood music is 'parking light' but different when it comes down to it. I was looking at a site, the agents were saying no car parking required, site cost was €13m when I looked into it 100 spaces were needed at an additional cost of €3m as I'd have to go into a basement, so the maximum I'd pay would be €10m for the site and that wouldn't work with the seller. The car parking requirement has reduced, no doubt, about it but still significant." (PD02)

This developer considered that local planners were not willing to implement these changes. Here he pinpoints the distinction between national policy objectives and local planner attitudes. This illustrates the divide between local and national planning objectives. Whilst the cynicism regarding planning and local agents' views that is revealed here is not unexpected what is interesting is local planners' behaviour appears to be frustrating or at least delaying implementation of the national guidelines. This supports Adams and

Tiesdell's (2010:194) contention that the extent to which public sector actors can be trusted "determine[s] their potential influence as market actors".

In this instance, it is the power of the local planner to either implement the national guidelines or not, that drove the decision for this developer. PD10 discusses his experience with a planning authority in Dublin.

> "There is an element in (names the local authority) planning department that doesn't want heights to go up. There are some good people in (names the local authority) but some who are members of An Taisce[47]. We got an appeal on one of our planning applications from An Taisce before we got the grant of permission from the planning department! Someone in the council tipped them off" (PD10).

Later, this developer outlined how he felt that there was an overly bureaucratic culture which affected the way planning departments operated.

> "if you are good in the council you have to be so tough to stay good, they will wear you down." (PD10)

Another developer outlined his lack of trust that local planning executive would implement the national guidelines on a site in the city centre

> "I bought the site in December 2017 got 7 stories (in the planning permission), I went back in for 8 even though the building heights have been changed and it was refused. I am going to appeal this. I can't work out their decisions. They are made on a case-by-case basis". (PD01)

Whereas some developers built up trust with local planning executives throughout their day to day operations, others found that planners could not be trusted to carry out national policies. Whilst this is examined in the next section, the lack of trust that is evident for some developers does weaken the potential influence of policymakers (Adams & Tiesdell, 2010). The following quotation illustrates succinctly how developers felt more culturally

[47] An Taisce, (Ireland's National Trust) is a non-governmental organisation active in the built heritage and environment. They have been very active appealing planning applications on the grounds that a development might threaten the integrity of heritage or natural assets of the country.

aligned with the national appeals board (An Bord Pleanála) than working with local planning executive. This developer did not trust that the local executive would implement national policy but he did trust in the Board. PD09 discusses a specific development site (CS09):

> "Site is on (names the road) next door to (names) a prominent office block. So, we put in our planning application at the same height as the (prominent tall building adjacent to the site) but they said that it (the proposed development) is too high. I appealed it to An Bord Pleanála who operate effectively and follow the guidelines and so the Board said (to the local planners) - get lost you are wrong" (PD09).

In other words, the appeal was overturned and planning permission was granted by the Board. The final comment "get lost you are wrong" illustrates the "us and them" mentality of deep division between the private sector developer and public sector local planner. Here, however, the distinction between public and private sector is called into question as this developer felt that appeals board (An Bord Pleanála) operated "effectively and follow the guidelines". This developer feels that one aspect of the public sector operated "effectively" and therefore was more closely aligned with his cultural view, whereas the local executives were more distant.

This section has illustrated that there was little evidence to suggest that developer – planner relationships had developed on to a more social and personal footing. Notably networks of relationships within public sector were not evident. Most developers interviewed only discussed planners in terms of their role to implement rules and regulations effectively. Some developers clearly understood that trust and reciprocity went a long way and over time they continued to use strategies that were successful for them. Conversely, when confronted with changes to national guidelines other developers found local executives slow to implement national policy. Where this was the case, they sought to use the appeals board to achieve their ends. Though that may lead to short term success for that particular development, it also serves to underline the lack of power local authorities have in implementing certain developments in certain locations thereby weakening the sense of shared purpose and deepening an already inharmonious relationship.

7.3 Exploiting uncertainty in a complex framework

Where local planners and private sector developers do identify opportunities for shared interest or potential for mutual benefit both revert to their traditional roles. Private sector developers focus on exploiting existing rules and conventions to achieve their own ends. Attention has been drawn to the considerable body of research that has tried to develop a comprehensive theoretical model that explains the development process, and though these models were very useful, they were often criticised for failing to take complexity and timeframe into consideration (Healey, 1991; van der Krabben and Lambooy, 1993). The specificities of local institutional arrangements can serve to either add to or alleviate the complexity and the timeframe for development projects. Charney (2007) suggests that analysis of developer preferences needs to be attuned to the institutional context. Chapter 5 laid out the local institutional framework for development that highlighted areas of complexity and uncertainty. For example, national policies such as the introduction of SHD legislation served to significantly shorten the time frame for large scale residential developments planning applications. At the same time, this added another layer of rules and conventions to an already complex development framework.

This section illustrates how property developers navigate their way often successfully, and other times not, through this process. It proceeds with a discussion of developer attitudes to this. A focus is put on specific instances of how property developers make decisions based on the certainty and uncertainty that exists in the formal institutional rules that govern development. Attention is also focussed on the extent to which developers embed themselves in "a network of rules" (Keogh and D'Arcy, 1999:2408). Drawing on Hodgson's (1998) idea that rules and habits play a crucial role in behaviour, this section illustrates how developers rely on their "habits" of submerged repertories (Hodgson, 2002: 117) that have evolved over time, where development decisions therefore become "routine" (2002:446). The certainty and stability of the existing rules and conventions enables this to occur.

Leishman et al. (2000) highlighted the relationship between uncertainty and land prices. They suggest that this uncertainty comes from both the market and the planning system. This section is concerned with uncertainties that arise as a result of local planning arrangements. Although Adair et al.'s "optimal redevelopment rule" (2005:215) to brownfield development that construction takes place once values exceed replacement costs is valid, development decisions can be more nuanced and initial land purchase

decisions can be related to developments in the market or the planning system. What follows is an examination of how specific decisions become routine from a strategy developed to exploit uncertainty and certainty in the rules and conventions in the planning network.

Relying on old habits

Throughout the interviews it was clear that many developers had developed their own conventions and habits that proved successful over time. These are "influenced by prior activity and have a durable, self-sustaining quality" (Hodgson, 2002:117). This section illustrates how the existing institutional framework provided an "incentive structure" (Rutherford, 1995: 446) for this type of decision-making and behaviour explaining how individual developers decided to engage in developments where place specific conditions either promote or deter development activity (Charney, 2007). Attention is directed at uncertainty that exists at the site-specific level, developers' attitudes, conventions and habits that have been developed over time.

Expected profitability in a development scheme is directly related to price paid for the land and the density (expected development quantum[48]) of the development project. Where a development site is bought without extant planning permission, the latter is unknown at the time the site is purchased. Needham et al. (2009) suggest that developers try to enter into pre-planning meetings as early as possible to reduce this uncertainty. Though this is certainly the case, developers cannot enter into these discussions until they have committed to the development by purchasing the site. Once the developer has purchased the site, a considerable amount of important decisions have already been made that will determine either the success or failure of the development project.

Nonetheless, developers have established habits that build a level of certainty into this system. Section 5.2.1 outlined how a specific site's development quantum is determined throughout the four local authorities in Dublin. Development control measures (for example plot ratio, site coverage), outlined in the local development plans, are discretionary and are decided at the beginning of the development plan. The discretionary

[48] The expected development quantum can be described as the total gross floor area a developer expects to achieve on a site which is determined by the prevailing planning framework. The quantum of development relates to the gross floor area of the finished development and therefore the expected development value.

nature of this means that there is an in-built uncertainty in the framework. Developers anticipate and exploit this uncertainty to achieve planning gain.

PD03 explains the point:

> "We call ourselves brownfield developers. We buy disused mid-50s or 60s buildings only in this area. We have bought a few outside the area, but mainly in (names the area). My gig is simple. There is approximately 44,000 sq. ft. in an acre, if the plot ratio is 3:1[49] we then have three times that of developable space with planning permission. That is a hell of a lot more valuable than 44,000 sq. ft. That is what we do." (PD03)

Plot ratio, also known as Floor Area Ratio (FAR) is a metric used to control a property development's mass. Specific *indicative* ratios are outlined in each local authority's development plan (created every 6 years). In this instance, the development plan indicates that a plot ratio of 3:1 is achievable. That means for every square foot on-site, you can build a gross floor area of 3 square feet. This is referred to as the *development quantum*. If we follow financial appraisal logic, the price that is paid for a piece of commercial development land in that zone will reflect the expected development quantum in that area. The developer assesses future demand for the building and uncertainty exists within this due to the indicative nature of the stated plot ratios.

PD03's decision-making process for gaining increased densities is multi-staged. First, establish development density on one part of the site. Whilst you are in the process of doing that purchase other sites in the area or assemble a larger site. Then reapply for planning permission for the entire development that you had originally conceived. Here he describes the process

> "You don't always go for the planning permission for what you want. You go for a strategic reason, either height or density or plot ratio. You go for the easiest thing that the planners will not see

[49] Plot ratios are always indicative and stated in the relevant development plan. The plan gives an indication of what can be obtained on a site, this means that there is always scope for more or less on the site depending on the surrounding built environment context, the comparable planning grants and the ability of a planning professional to make a convincing case.

> through. You go for that, get it and then go for what you want. That is very common." (PD03)

There are several striking aspects to this statement. First, this is a strategy that has been honed over time, a strategy formed into habit due to the success that it delivers. This behaviour is reminiscent of Hodgson's "submerged repertories" (2002:117) that have worked over time that render decision-making "routine" (2002:446). Second, the relationship with the planners appears more formal rather than close as he is concerned that they will "see-through" his strategy. Finally, his statement reveals that he is not the only developer pursuing this type of strategy.

Later in the discussion, he elaborates further with an example:

> "The planning application then went in on that (points to a location outside the window of his office) corner to establish what height we could get. In 2003, they got 8 stories. At that point, we established the height in the entire block. As they got height on that site, they knew that they would get height on the other side of the block." (PD03)

Though this is a time consuming, risky proposition it represents a tried and tested strategy that resulted in success over time. This illustrates the fact that the series of decisions embedded in this strategic approach is designed to ensure that increased density could be achieved on a larger scale. Nonetheless this approach is adopted as the existing institutional rules provide an "incentive structure" (Rutherford, 1995). This single proposal has time, planning and market risk locked into it but with the potential for significant gain. The way this developer spoke about this strategic approach indicated that this was a planning strategy that was pursued by them over time and by other developers they were aware of. This discretionary development control process is a defining characteristic of the planning legislation in Dublin. This is a clear example of how the formal rules increased uncertainty in the planning process as at the time of purchasing the site, it is unclear how much density can be achieved on that site. Over time developers create strategies to reduce this uncertainty and through the use of these tried and tested habits, decisions can often become routine.

The analysis of developments that went 'on-site' over the study period revealed that during the first half of the decade, planning permission was taking a considerably longer period to obtain. Section 5.4.1 revealed the fact that for developments that went 'on-site' during the decade to 2020 the average time fell by 57%, as applications initially getting planning grants in 7 months fell to 3 months by the end of the decade. Aggregate analysis of the dataset on time for planning permission ignores the specific risk that each prospective site contains. Here are some examples of the actual timing in planning and how it affected long term strategies and short-term decisions. PD01 a developer that began his career in development in 2011 states

> "planning slowed us down on the site but it is not a problem as the values have still risen." (PD01)

In the end, the planning permission grant arrived 26 months after the application was submitted. This was because an initial application did not deal sufficiently with flood risk and it was refused, subsequent applications were required and eventually permission was granted.

PD05 an active commercial and residential developer explains his general approach with an example of how he orchestrated a particular development project.

> "It (the site) had planning, and I decided to buy it. It (planning) is not necessarily a big risk, but it can take a lot longer if it doesn't have it. Always about a year and then it might even be longer than that" (PD05)

To avoid planning delay and capitalise on completing the development in a shorter period, planning permission was a factor that drove his decision to buy the site. Three developers stated that they prefer sites that do not have extant planning permission (PD01, PD09 and PD10). One developer outlined that his knowledge of the legislation made it easy for him to navigate the system and gave him a certainty in his site purchase decision

> "every site I buy I will buy without planning because I know precisely what we can get on it because I understand the rules and regulations" (PD09).

What he did not state here was not only did he know the rules and regulations crucially he knew how to use them.

PD01 expresses the same sentiment when he indicated that

> "I only buy sites without planning. Anything with planning has no profit in it." (PD01)

Many developers prefer to purchase land without extant planning permission as the price normally reflects the time, probability and risks associated with gaining such permission. Some developers see this aspect of their role as a defining one as it is linked to Adams and Tiesdell's (2013:145) description that developers expertise lies in "spotting development opportunities (location), knowing the target market (product) and resolving constraints to make things happen when required (timing)".

Evolving habits

At the same time, during the decade to 2020 a lot of change occurred in the institutional framework for property development. This section also draws on Rutherford's (1995) notion that shift in rules and conventional approaches occur both from external and individual actor influence. He suggests that some decisions will involve changes to relations and rules. The following sections illustrate how both these occurred in Dublin in the years leading up to 2020

Developers also make decisions within the development process to reduce uncertainty in the face of changing rules and regulations. Another developer (PD04) who owned land in a different local authority area, outlined how he decided to circumvent the new national rules and regulations to speed up delivery and increase density (Chapter 5) that he felt would result in a poorer quality development for the area. Interestingly in the next quotation, his attitude to his relationship with the locale is revealed. Here he calls it "our area". He recounts that this took place in 2017. New legislation was introduced that was designed to speed up large scale residential development. This developer decided to apply for planning permission on a parcel of land. He recounted how they made their decision regarding building houses or apartments in that area:

> "It was early 2017 and we decided we should get planning permission. It was lodged in 2017 and it was refused. The SHD (Strategic Housing Development) legislation came in then and they decided that they should avoid this as they did not want density. We knew that they (the Board) would want density as the

> site was on the Luas line. So, we split the site and went in for 2 different planning permissions. Once they were under 100 units on each site they were not under the SHD. The council helped us. They knew what they were up to. We were trying to do the same style of housing and have the entire development continuous with parks just like the rest of the housing in our area." (PD04)

They were aware that ABP would use the SHD legislation to increase the density of apartments and housing on the site. This was not aligned with their plans for the specific site which reflected the fact that they were trying to create a higher standard of design for the area at the expense of density. Naturally, they considered that this objective would yield the highest prices for the considerable land bank that they had in their pipeline. It could also be argued that this developer's longer-term decisions were consistent with the longer-term strategies of the local authority and local residents, improving the quality of the local area.

The SHD legislation had the effect of making the Board the planning authority for large scale residential developments, circumventing the local planning authority. The developer was willing to go to the expense and take the time to split his parcel of land in two, so that this development would not be subject to the higher density requirements of the SHD legislation. Here is evidence of a developer who was committed to delivering a higher quality place, rather than extracting financial reward that would have resulted in a larger scale development. This quotation also implies a degree of cooperation between the local planning executive and the developer. This is another example of how property developers made decisions to reduce uncertainty and risk in the development process. It also illustrates how developers selectively use rules and regulations when they align with their long-term vision and knowledge of an area.

There are other examples of how developers use the rules to suit their view of what type of development would be successful for an area that they have an interest in. PD08 explains the point.

> "Most apartment blocks currently under construction do not have the 15-year covenant[50]. The reason is that you would want to be

[50] Developers of these apartment blocks applied for planning permission for build to sell as opposed to build to rent which requires that that owner keeps the building rented for at least 15 years.

> damn sure you have the exit. There are apartments with planning in some very dubious locations. Build to sell is not viable and build to rent is not proven. You want the choice." (PD08)

This illustrates how property developers were initially very slow to build the BTR type development. Until it was proven in the market place they and other developers were not willing to build. From watching what his competitors were doing he learned from their strategies.

He has to base his development decisions primarily on what he can be sure will be absorbed by the market when he has completed the development. His feeling is that whilst the SHD (Strategic Housing Development) legislation helps them to deliver residential units to a market that still demands it, the rental market is less certain. Even though the regulations enabled build to rent apartment block development, developers preferred to develop build to sell apartments so that they had a choice of either selling to an investor who would rent them out or selling them off individually.

It is clear from this section that there are a variety of approaches and this is in the face of the same institutional environment. Developers use their own experience to determine what approach has worked for them in the past. Monitoring and analysing existing transactions gives them vital information on how other developers are interpreting and developing their conventions. Developers both learn from and use this information in pursuit of their own ends.

7.4 Influencing uncertainty

The theoretical and conceptual foundations for this research acknowledge that decisions are made within the prevailing local institutional framework (Charney, 2003; Beauregard, 2005; Henneberry and Parris, 2013). Moreover, the development process occurs not only in a spatial but also in a specific "temporal" (Healey, 1991:219) dimension. Over the course of a single development project crucial changes to this framework can alter the development trajectory. This section investigates how developers respond and contribute to changes in this institutional framework. Sometimes rules and habits are not always strictly followed, and where change occurs, it may be as a result of the actions and decisions of individuals. This approach supports the notion that institutional change is often driven by entrepreneurs (Rutherford, 1995). Leffers and Wekerle, (2020) drew attention to the fact that in some locations private developers have become the accepted partners of the state in

the provision of the built environment. Chapter 5 drew attention to the fact that at a national level the state implemented policies that were seen to support development and weaken the powers of local government. This section explores the way in which developers influenced both local and national policies and how this informed their decisions.

Another experienced developer illustrates how they influenced the rules and plans at a local level through their contributions to the Local Area Plan. This developer owns a considerable bank of land in this locale.

> "The LAP was really done by the Council but we were involved. The executive wants density but the councillors want houses. We got them to put a clause in the LAP that stated that *not less than 85% of units will be own door units (housing)."* (PD04)

Though the means by which this developer "got them" to put a clause into the LAP was legitimate, it does indicate that they mobilised the support of local county councillors to persuade the executive to change the LAP. By doing this, they were responding to the local needs and local sense of place rather than adhering to national policy objectives that privileged high density housing irrespective of the local specificities. Building on this, the following illustrates how close and influential the developer can be in shaping land use zonings. This local authority area is in the suburbs of Dublin, approximately 10km from the city centre. PD04 states

> "When a new development plan is being prepared, we go to council and suggest what we want to be zoned. We tell them that they already have 20 years of office supply. We don't need any more and the demand is going into the city centre, all the IT companies want city centre sites. Now we need residential." (PD04)

The statement implies that the relationship is quite close and that they can suggest zonings and change the nature of what will be built in an area. More striking though is how market demand is filtered up to the council, who assists by allowing a change to the zoning. This is an extremely powerful conduit that has been proven to change the nature of what is being built in this area, an area that few other developers are interested in. PD04 works

cooperatively with the planning department and is well known to them as they own and develop a significant landmass in a local authority area.

PD03 pursues a similar relationship with the planning authority

> "When we started here everything was a single storey. The first thing we had to do here was start with a local area plan. The LAP (Local Area Plan) was done in 2003/04 for the (names a specific locale) and he knew this was coming down the line and got in touch with a couple of other stakeholders and made a submission to the Local Authority. The local authority never has money for local area plans. So, we paid for it." (PD03)

This developer is adept at mobilising a network of stakeholders to assist with the shaping of this particular space in the way that he wants. His financial capability gives him leverage in this respect. In another very telling comment about his approach to property development he states

> "You need patience, deep pockets and good contacts" (PD03)

The data reveal other examples of how developers exert influence on a national level through their ability to connect with national politicians. Towards the second half of the study period, significant changes in the rules and guidelines were implemented. For example, new guidelines on building height (DoHPLG, 2018b) and apartment types and densities (DoHPLG, 2018a) were issued to local authorities. One developer outlined how he directly influenced one aspect of this national policy. He traced this process during the interview. This developer spends a lot of his time in another continent with a contrasting culture to Ireland[51]. Here he witnessed first-hand how the co-living market worked:

> "Very vibrant market in co-living in major cities in [names country]. It works there, I know why people like it and how they do it. Younger people like it." (PD09)

PD09 recounts how he influenced national policy

> "We persuaded the government to change the planning law. You see the planning regulations did not provide for co-living

[51] Specific location not named here to protect the anonymity of this develop.

> developments up to 2018. Luckily the minister was in favour and said that he didn't know that the planning regulations didn't allow for it and he moved to change it. He put it out for consultation in draft form. No one complained".

Through his experience of living and developing in another city, and to pursue his own development objectives, he put forward the proposal to national government. What is interesting is that there were no objections at public consultation stage. Developers can formally make submissions to national government with respect to policy, however, informally there may have been discussions also. There is no doubt that this developer influenced what occurred. However, to suggest that he could *persuade* local politicians on any aspect of planning law would be incorrect. The context here is important. There was a highly publicised shortage of residential accommodation in the city in the wake of the GFC. Therefore, it is understandable that local politicians were receptive to any ideas that would result in increased supply into the market.

When trying to transplant this idea to Dublin he met with resistance from the local planning department, and in a meeting with the head of planning in the local planning department who said:

> "he wouldn't live in these (co-living) developments. I said, you are 58 you are not going to be living in them plus you are married. If you wanted to live in them, you couldn't because they don't let married people in. Only singles." (PD09)

There was a lot of public opposition to this type of development despite the significant shortage in residential accommodation. Sentiments expressed in the media chimed with Adams, Croudace and Tiesdell's (2012: 2578) public image of the developer as "'Rachmanesque' accounts in the popular press, combines brashness with secrecy, confidence with greed". Here he recounted the reaction to co-living developments:

> "a lot of complaints from NIMBY[52]S and the press. For the first co-living development there were 98 media outlets doing a piece

[52] NIMBY or Not in My Back Yard is a colloquialism that describes someone who opposes putting something in the area that they live in. Normally this refers to the construction of a large-scale project that might affect the value of their property or have other negative externalities that result in increased exposure to risks or diminished quality of life. (Wexler, 1996)

> on it. Radio Kerry did a two-hour show. The chances of a co-living proposal in Kerry are zero", (PD09)

Though outside the scope of the study period, it is interesting to note that by the end of 2020, a new housing minister revoked this element of the guidelines. The argument against this type of development was that too many applications for co-living developments were being received, and more crucially these were receiving planning grants. Interestingly, not all developers were in favour of this type of development despite the popular view that this would yield a significantly higher development profit. Another developer outlined his views on this type of development:

> "We are not interested in co-living as there is too much managing in it. We are fundamentally opposed to it as it is not good for the area." PD03

This developer privileged the quality of the area over the profitability of a specific development. This longer-term view and links with the local area are explored further in the next section.

This research has found that some developers do try to use their relationships to influence policies and plans both locally and nationally. This section supports the findings of existing research (Brill, 2020; Leffers and Wekerle, 2020) that views developers as having the capacity to not just "leverage the advantages of existing institutions, but to shape new policies in a way that benefits developers" (Brill, 2020:4). In this chapter developer objectives were not achieved through networked relationships of communality or sociality but more through the notion of the revolving door (Brill, 2020) where to some extent developers had the capacity to dictate local and national policies and guidelines. Sometimes this was successful and in other instances, it was not. It does illustrate the two-way relationship between developers and the state and where their long-term objectives align it often results in beneficial development outcomes.

7.5 A diversity of strategies and behaviour

The conceptual framework employed here acknowledges that not all decision-makers behave in the same way and that a diversity of behaviour can be observed (Coiacetto, 2001; Charney, 2007; Rosen, 2017). The discussion now turns to examine how developer behaviour varies in the face of the same local institutional environment. Experienced developers are more likely to behave very differently from novice developers. This chimes

with Adams (1994) views on the changing nature of the property developer as they mature. However, this research develops the idea further. Attitudes to rules and social processes at play in the planning framework have been revealed here. This section considers the attitudes to the rules and relationships and considers what behaviour results. So far it is clear that there is a marked difference in attitude to the rules and regulations and the importance of relationships to the public sector. This manifest themselves in different behaviours that are considered in terms of choice of location and sector and timing of development

7.5.1 Experienced place-based developers

Experienced developers are more likely to understand and try to influence the rules and policies in the planning network. Over time they have built up knowledge that has helped them to develop strategies that assist with reducing the uncertainty in the planning element of the development process. PD03 and PD04, PD09 are experienced developers that have operated successfully in the development market in Dublin for over 30 years. They have illustrated how they understand the institutional rules and conventions and through the decisions they make, can reduce uncertainty in their strategic development objectives.

Two experienced developers (PD03, PD04) have chosen a specific location within Dublin to develop over their development careers. Chapter 2 draws attention to how some developers prefer specific locations whilst others do not. This is illustrated well with Guy et al.,'s (2002) account of the "locally based" developer which contrasts with the "institutional-based" developer. They describe how Urban Splash "strayed from the traditional institutional core" (2002:1189) to develop in the more marginal areas. PD03 and PD04 over successive decades have helped to raise the quality of their chosen locations and crucially refresh and renew areas that may have otherwise become derelict. The following sections illustrate how their day to day decisions and longer terms strategies achieve this.

PD03 illustrated this in the way that he secured density on one site so that following the assembly of a larger area in that location he could be certain that the higher densities would be given permission. Crucially, he stresses *only in this area.* This strategic approach takes years to play out.

> "We have bought a few outside the area, but mainly in (names the area)." PD03

Interestingly this was a strategy that was built up over time. Throughout the interview, he recounted stories of how this focus on one location occurred.

> "They got into the (names the city centre locality) by accident. My Dad bought a few cottages (names the street) in 1956. We were builder-joiners and we bought up the next-door neighbours and then adjoining lands were bought up. Reinvested our money into the business. I've bought and sold a few sites around two or three times." (PD03)

This approach is clear evidence of how this developer capitalises on his

> "locational literacy; presence in specific settings and forging frequent relations with different agents facilitates the acquisition of local intelligence shared by people who are part of the local real estate milieu" (Charney, 2007:1180)

Similarly PD04 another developer with many years' experience outlined their views on location. They targeted a specific location at an outer suburban location in Dublin. They decided to buy up all the land in a specific location and develop it over 30 years. This is a long-term strategy that would play out over time. In the 1990s they bought up 600 acres of land to shape a place that would provide jobs, shops and houses and the infrastructure needed. Throughout the discussion it was evident that they were creating a sense of place. actively involved in planning the area with the local authority and getting infrastructure for the lands they owned

> "With the 600 acres we owned out there at that time we started with industrial, there was no market at the time for offices. Then we started building offices in the centre, we knew that industrial was not going to work." (PD04)

This land banking strategy is reminiscent of Tulloch Homes strategic approach, described in Varna, Adams and Docherty, (2020) which also occurred during the 1990s. Admittedly, Tulloch Homes had a greater impact on Inverness due to the difference in city size. Nonetheless, the initial decision appears to lack economic rationality as he "recalls everyone at the time believed (the decision) would be the end of his company" (2020: 80). Though Varna, Adams and Docherty (2020) were concerned with examining how network

dynamics can confer an added advantage in smaller cities, this also illustrates similar strategic approaches taken by property developers in two different cities.

Here the emphasis is put on how developers influence the rules. As PD04 was financially committed over the long term to a specific location, they began actively managing the quality and sense of place of the area. Here he recounted their vision for the area

> "We needed to build residential housing for the area. We went to councillors. They were terrified that we were going to build rubbish apartments. The county councillors only wanted houses. We decided on good quality houses and modelled some parts of it (names a famously affluent red-bricked residential area near the coast in Dublin) with 3 and 4-bed houses with gardens, 20 units to the acre. The councillors loved this" (PD04)

What is striking is that there was no mention of house prices or demand, only their will and long-term vision for the location. It highlights the distinctly social processes that are at play throughout the development process. Here this developer explained what he considered his role in the process of placemaking to be.

> "We had to transition from one place to another, so we put the school as the physical barrier from the 'not nice' area to the 'nice' area. We provided a physical barrier between the locations. It was right beside one of the worst council estates in the country. We got a wordsmith to create (names of the area). Every time a new road opened, we stuck up a sign saying (name of the area) Avenue, or (name of the area) Lane and then it became that." (PD04)

By physically separating their lands from a public housing estate and rebranding the area they shaped a new locality. Their vision became a reality through their ability to create a trusting relationship with the public sector and, through active management of the locality create a new suburban area with offices, shops and housing.

Both PD03 and PD04 are clear examples of experienced developers' committing to a single locale that is not considered a prime or core location. These developers spend time getting to know the rules and overtime creating value and a sense of place.

7.5.2 Experienced sector-based developers

Not all experienced developers focussed on a specific locale. Another experienced developer developed a strategy that was directly related to his ability to influence policy at the national level. PD09, an experienced developer in the Dublin market is a good example of this. Through his own extensive experience of developing and travelling internationally, he identified a trend in short term rental accommodation. In an attempt to transfer the idea to the Irish market he influenced policy at the national level. Initially he was successful and he developed several co-living developments. In the end, this policy was reversed.

Throughout the interviews with developers that were motivated by the intricacies of the rules and regulations in the planning system, another important feature of the development process began to emerge. The strategies that were used by developers required a lot of time to play out. From PD03's attitude to building density on one part of a site which he envisioned as a much larger development, to the way that PD04 broke up a parcel of land into two separate sites. This was done to avoid the SHD legislation that would require a much higher density of residential developments. These indicate that the strategies and decision-making processes are developed and implemented over a long time.

Other developers that decided to buy and develop sites also depended on the certainty that planning permission gave them. PD05's short-term strategy enabled him to complete his development to capture market timing as planning permission was already in place when he bought the site in question.

The same pattern emerged regarding developer attitudes to public sector relationships. Experienced developers valued trusting reciprocal relationships built up over time where both parties learned to trust each other. This was clear from the views of both experienced developers PD03 and PD04. Conversely, novice developers did not stress the importance of building relationships over time. Their attitudes were either passive or dismissive.

By contrast, novice developers did not display a preference for this strategic approach. Instead, they developed in multiple locations and local authority areas. An analysis of the data on novice developers revealed a lack of engagement in discussions on the planning and regulatory aspects of development in Dublin. Interviews from novice developers, in particular, displayed this tendency (PD01, PD05, PD10). Crucially the data revealed that they were not connected into or embedded in a specific location. They were less likely to engage in local area plans or national policies. They appeared to be less successful in their

ability to secure planning permission. This is illustrated with PD01's comment about local planners where he suggested that he could not understand and therefore predict planners' decisions.

Crucially novice developers such as PD05 did not stress the importance of relationship building with local planning executives.

> "I never get involved in LAPs or planning. It is a waste of time. It is not my business. I wouldn't like to do that" (PD05)

PD10's views were that the rules were changing too much and he did not trust them.

> "(names the local authority) keep changing things. Planning rules and building regs keep changing." (PD10)

The table below summarises these findings.

Table 6. 2 Local place-based attitudes to public sector

	Experienced Local Private	Novice Local Private
Planners, rules and conventions		
Relationships	***More Likely To*** ○ rely on formal professional relationships ○ appreciate the importance of trust and reciprocity in their capacity to carry out their role;	***Less Likely To*** ○ develop and rely on relationships
Rules and influence	○ have developed an understanding of the nuances and intricacies of specific rules and conventions; ○ engage in plan making; ○ make representations to politicians regarding guidelines; ○ have greater success in their planning decisions; ○ develop strategies that exploit planning rules; ○ focus on a specific locale "place-based" or sector.	○ focus on exploiting rules and regulations ○ do not consider plan making important to their business ○ understand planning decisions ○ focus on place or sector

7.6 Conclusion

The discussion and findings in this chapter continued to explore how embedded property developers' decisions were in social relationships and networks of relationships. Here emphasis was placed on their relationships with planners and politicians in the public sector. Together with the findings in Chapter 6, this addresses the first research question in this developer-orientated study on decision-making. This view considers that decisions and actions are embedded in social relations (Granovetter, 1985). The findings in this chapter confirm Leffers and Wekerle's (2020) view that local specificities often determine the quality of relations between developers and those in public sector institutions. It uncovered developer-planner relations that were distant, generally distrustful and devoid of depth or any social dimension. Adams, Leishman and Watkins (2012) stressed how housebuilders were frustrated "that planners stand beyond their normal networks and cannot easily be incorporated into them" (2012: 716). One of the leading causes was that they could not articulate shared interests or envisage that they were working on the same side.

This research found that local planning executive and developer relations were more distant, less social, personal, or deeply networked, which confirms Adams, Leishman and Watkin's (2012) research findings. This contrasts with Henneberry and Parris (2013), who uncovered a different public sector culture and local specificities that determined the relationship's quality. In their study, mutual gain and shared interests were evident because the public sector was more involved in the case study project and urban regeneration. In short, mutual gain and a shared interest in a positive outcome determined the quality of the relationship.

The importance of developer planner relations in Dublin over the period was undermined because of the policies and guidelines introduced at a national level that disempowered local executives and had the effect of deepening the "clash of culture" (Adams, Leishman and Watkins, 2012:716) between the developers and planners in Dublin in the decade to 2020. It is also notable that where the local authority was a significant provider of land in the development process, developers were more inclined to foster closer ties and relationships (Adams, Leishman and Watkins, 2012; Henneberry and Parris, 2013). Local authorities in Dublin over the period were not a significant provider of development land. These findings bring the importance of the role of institutional design into sharp focus and how this can either promote or obstruct social relations. This was evident in Dublin through the creation of SDZs and the additional powers given to An Bord Pleanála. It

suggests that policies must be sensitive to how socially constructed the development process is and that a more collaborative process would yield more effective outcomes (Healey et al. 1995).

Though the emphasis on forging closer relations with the private sector rested on gaining "locational literacy" (Charney, 2007:1180), developer-public sector relations were more orientated towards building certainty in their development projects. The research uncovered here supports Brill's view that it is a "strength of developers, and their capacity to not just leverage the advantages of existing institutions, but to shape new policies in a way that benefits developers" (Brill, 2020: 4). This was achieved through the practice of habits and routines that have worked for them in past where opportunities were identified in an existing institutional framework that provided an "incentive structure" (Rutherford, 1995: 446) for habits and routines. At the same time, developers' influence on policies and conventions was evident, and it seems clear that some developers could dictate where policy was directed and how plans would unfold.

The second research question addressed in this chapter was focused on shedding light on local, place-based and non-place-based property developers. The diversity in the developer population that was incorporated into the design of this research yielded results that suggest that developers have varying degrees of embeddedness in the private sector (Chapter 6) and the public sector. Experienced developers identified as local and place-based had levered their relationships with local planners to build greater certainty into their future development projects. They influenced local area plan design and proved themselves dependable over time. These factors illustrate the variation and unevenness in the impact of various policies on a city. On the one hand, SHD legislation distances many developers from local planning executives. On the other, those developers that had built up reputations that resulted in trusting reciprocal relations endured over time.

An essential element of examining embeddedness is the notion of trust and how each party is perceived through the reputation they have developed. Trust is a crucial component of human interaction when markets are imperfect. As Varna, Adams and Docherty suggest, "Trust can provide a more effective way to cope with market imperfections than reliance on contracts, guarantees, insurances and safeguards" (Varna, Adams and Docherty, 2020: 74).

Adams, Leishman and Watkins (2012) suggested that reputation is a trust-generating and reinforcing mechanism. Although exploring social embeddedness and decision-making acknowledges that trust is an essential component, the concept is nuanced. This research has illustrated how different types of trust emerge with different actors in the development process. Added to this is how different types of trust have different attributes.

Of greatest significance to the findings in this chapter is the trust experienced developers had in the local planners they had dealings with over time. Once these experienced developers carried out the requests and conditions, there was an expectation that a planning grant would follow. Höppner (2009) first identified this type of trust but related it to trust in the role of planning committees. She identified competence, honesty, reliability and reciprocity as crucial attributes of this type of trust.

Once this type of trust is developed in a relationship, planners can direct developers to carry out certain locally significant activities such as the development of a park as part of a planning grant. The conditions vary and are spatially and temporally specific. If developers prove that, over time, they can be depended upon to carry out these tasks, it has been shown here that they, in turn, were more likely to receive planning grants. This trust takes time to develop, and it appears that novice developers are not interested in or aware of its benefits.

'Swift trust', on the other hand, identified by Grabher (2002), is a contrasting type of trust in several ways. First, it relates more to private sector roles; business agreements can be arrived at quickly as either an architect or an engineer can be trusted to carry out their role. Additionally, this is not built up over time. It is arrived at quickly and allows for the rapid creation of latent project groups (Henneberry and Parris, 2013). From the data presented over these two chapters, it appears that local novice developers depend more on this type of trust. In contrast, experienced local developers tend to use the same project professionals over successive projects, so the existence of swift trust is less evident.

To progress the idea of an emerging typology of trusts, it is helpful to reiterate here the type of trust identified in Chapter 6 that differs from the types of trust discussed so far. The quality of the relationship can be measured by the type and degree of trust that binds it together. Chapter 6 identified a network of private sector relationships that were deeply personal and sometimes familial. These were acknowledged as often being key to a developer's success. Both novice and experienced developers discussed these types of

relationships. However, it was not an essential relationship for institutional, non-place-based developers for obvious reasons. This type of trust is familial and confers a significant advantage on a developer. PD10 and PD03's comments revealed that this type of trust could often be unconditional.

As has been shown, trust is a nuanced concept, and when it occurs determines the quality of the relationship and the benefits that might accrue from that relationship. Trust is more important to local place-based developers; obtaining equity and funding resources is contingent on this. Chapters 6 and 7 have addressed the first and last research questions.

Attention now turns to the second research question and focuses on how intuition is used by developers when making decisions.

8.1 Introduction

> "[intuition] has a role in …. decisions with elements of uncertainty, and when there is great complexity with large volume of information to be processed." (Patton, 2003:989)

Patton's quotation above directs attention at how complexity and uncertainty in the external environment drives the psychological aspects of decision-making. The behavioural economics literature has illustrated that humans make decisions based on mental short-cuts also known as heuristics. Chapter 3 drew together the ideas in this research and considers that intuition is a heuristic device used by decision-makers. During the data analysis phase of this research, the strongest theme to emerge was that decisions were made based on emotionally charged intuitions that were often described as gut feelings.

The conceptual framework has drawn together the idea that entrepreneurs are more likely to rely on heuristics and intuition when making decisions under uncertainty Mitchell et al., 2005, Sadler-Smith, 2016). This chapter addresses the second research question:

> *Under what conditions and to what degree is intuition used by property developers as a decision-making heuristic in the property development process?*

This is achieved by first underscoring the link between property developers as entrepreneurs. Once intuitive decisions have been identified, the focus turns to examining under what conditions this type of decision making takes place and finally a focus is put on identifying the intuitive decisions made by developers in the development process.

8.2 Entrepreneurs and intuitive decision-making

Independently, applied research on entrepreneurs and property developers has arrived at the same conclusion, that their role is to spot opportunities, and this is anecdotally done using intuition. In the property development literature Adams & Tiesdell, (2013:145) consider that a property developers' role and expertise "lie in spotting development opportunities". The entrepreneurial literature also considers opportunity spotting as a key skill. Often this decision-making style is put down to "gut feel" or "hunch" (Mitchell et al.

2005, Sadler-Smith, 2016). Much of the literature on property developers refer to their entrepreneurial characteristics (McNamara, 1983; Coiacetto, 2000; Adams, Croudace and Tiesdell, 2012; Henneberry and Parris, 2013; Rosen, 2017).

When asked how property developers in Dublin described their role, 9 of the 13 participants in this research cited characteristics that are best described as being *entrepreneurial*. This is an important consideration for the conceptual framework here as entrepreneurs are known to rely more on intuitive and heuristic decision-making processes (Busenitz, 1999; Mitchell, Friga & Mitchell, 2005). The following illustrate how property developers see themselves. Throughout the interviews, developers described themselves as having general entrepreneurial traits such as "vision" (PD10) "high-risk appetite" (PD01) "wheeler-dealer" (PD03) "creativity" (PD05) and "control" (PD04). One developer (PD03) strongly identified with being a "dealer" from a very young age as he recounted that

> "In school, I was a dealer in lockers and would take rent from the other lads". (PD03)

Similar characteristics can be observed from other developers. PD01 described himself as follows:

> "I have a high-risk appetite, I am an entrepreneur, I have a vision" (PD01)

PD11 described what he likes about the role

> "The deal is what I like, figuring out the bids, getting an exclusivity, and trying to get your nose in front" (PD11)

Throughout the interviews, developers were animated by these ideas. There is an emotive quality to these statements. This is what they loved about their role as a developer. It is also what they considered the essence of the role to be – sifting through the uncertainty and complexity, predicting what will happen and spotting opportunities.

8.3 Recognising and processing intuitively

The conceptual framework drew attention to the recent theoretical and empirical developments in automatic information processing and the role of intuition in decision-making. (Kahneman and Frederick, 2002; Dane and Pratt, 2007; Gigerenzer, 2007; Evans, 2008; Hodgkinson et al., 2008; Klein, 2015; Sadler-Smith, 2015; Hodgkinson and Sadler-

Smith, 2018) These developments have challenged the idea that the study of intuition is 'scientifically weak' (Hodgkinson et al. 2008: 19) and emphasise that it is a key part of entrepreneurial decision-making.

Kahneman and Tversky define intuition as "an informal and unstructured mode of reasoning" (1982). Hogarth (2010:14) states that "the essence of intuition or intuitive responses is that they are reached with little apparent effort and typically without conscious awareness. They involve little or no conscious deliberation". Klein believes that intuitive decision-makers use their experience to quickly size up a situation and arrive at a decision (Klein, 1998). In addition there are other more physiological associations with intuitive thinking such as affect, and intuitive judgement, which often have somatic or physiological markers (Dane & Pratt, 2007; Hogarth 2010). Intuitive and heuristic decision-making is characterised as being informal, unstructured, fast, without effort and often has a physical dimension (emotion/affect, smelling, gut). Now attention is turned to understanding the conditions that drive intuitive decision-making processing.

8.3.1 Processing information intuitively - joining the dots

Much time has been devoted to the fact that there is considerable uncertainty in the development process and when longer-term strategic decisions are made the diversity, quality, depth and availability of information poses a challenge for deliberative analysis. The cognitive psychology literature highlighted in Section 3.4 describes the way in which intuitive decisions are made which is framed by the uncertainty and poor-quality information in the external environment. This suggests that there is an associative process at play. Dane & Pratt (2007) describe this process as being able to link together different types of information and Evans (2003) relates this type of processing with the neural networks. The concept of 'big picture' processing of information is linked with an ability to intuit information from unconnected areas that result in knowing that can be linked to literature (Hodgkinson & Sadler-Smith, 2018; Sinclair & Ashkanasy, 2005). PD09 describes the assimilation of different types of information and how:

> "Everyone is subject to them (gut instincts), so they read the tea leaves through sales data, then they are reading economic data, mortgages or economic signals which presage the occurrence of the recession or the expansion long before it is felt" (PD09).

This statement points to the fact that intuitive decisions have a long-range predictive quality to them. The fact that he related intuitions and gut feelings to "read the tea leaves" evokes a mystical quality to the process.

PD01 discusses more complex opportunities when outlining his initial decision-making process when evaluating whether to go into a specific development. This is a prime example of Busenitz's account of how decision-makers "sift through the large diversity of information in the face of much uncertainty" (1999: 337).

> "When bond yields start to move out then the PRS (private rented sector) market will too. The student accommodation market is way overvalued. The €250 per week is gone now (rent per room per week in term time) and will not be sustained. Another 2,000 beds are coming onto the market over the next few years. Affordability at €250 per week is what will go. The real number is early €200s. The same will happen to the rental market very soon, 1000 apartments in planning permission a month is going into the fast-track planning process in Dublin. Long term buyers don't mind. But developers are the ones that will". (PD01)

On the one hand, he is discussing weakening government bond yields and how this will be reflected in the yields of the relatively new property investment sector, PRS. Drawing on the idea that assets are overvalued, he then considers the student accommodation market and makes a quick assessment of value. Then he equates this to weekly rental levels and the number of apartments in planning permission. A vast array of different types of information are pulled into a decision. The decision, in this case, was to sell a completed building at a discount.

Both of these examples are not related to the specifics of a development quantum here, rather the decisions relate more to future general economic scenarios or inflection points in a cycle. Related to this is how specific and disparate types of information are processed but at a more micro or site level, Kahneman & Tversky (1979) suggest that decisions are made in two phases, the first is an early editing phase. The function of this phase is to filter different options to simplify the evaluation phase.

PD05 develops many different types of properties, from hotels, to offices, and residential investments. He started off buying and refurbishing properties in 2010, then in 2014 he

began developing on a much larger scale. He outlines some examples of sites that he did not go forward with and how he evaluated the project.

> "I see that things are getting dear (expensive), land and buildings. The price per sq. ft. is what I go on if I'm buying a property that is built. Something came in on (names a prime area in the city centre) for €13 million 15,000 sq. ft. vacant €860 per sq. ft. I know you can sell at €15 million and at a 5% yield. €1,000 per sq. ft. but I'll need to spend €200 sq. ft. plus fees so no profit in it. If you are an investor that wants a dry asset fine but not for someone like me." (PD05)

In this simple example, this novice developer wants a speculative return on this project. This determines how the project is evaluated into a gain or loss. PD05 is not interested in holding this property as a long-term investment. He demonstrates that a quick assessment of investment values, yields and depth in the market determines what he could sell the finished building for - €15 million or €1,000 per sq. ft. With an extremely basic application of the residual calculation, he deducts what it will cost him to purchase and refurbish the building for on a per sq. ft. basis €1,060 per sq. ft. together with fees and profits. By doing this, it is clear to him that he cannot make any speculative short-term profit. In this instance he assesses his gains and losses against the current reference point. He acknowledges that another type of investor with a longer-term interest in the project might be interested in holding it. In another example, he illustrates the same type of considerations.

> "(Names a series of 5 Georgian office buildings, for sale) all have crappy substations out the back but off the top of my head, I was thinking they are worth €2.5 million max each. I knew this as I was doing one up on (names a street with similar buildings on it in a similar location) so I know it and they were €2 million. They asked for €19 million. It was not worth it……it was not worth it for me, but someone will buy it". (PD05)

In his mind, the 5 buildings were worth between €10 and €15 million, whereas the selling agents were looking for €19 million. He had a 'gut instinct' for the price before he went to view it based on simplistic analysis of comparable buildings which was sufficient for him to decide it was too expensive. Though this decision was made some time before our

discussion, this developer was able to fluidly recount the specific information that he used. It was evident that this developer maintained a database internally of information that could be drawn upon quickly, to weight up different opportunities. This was not catalogued anywhere, in for example a sophisticated database, or analysed in any way other than he described. Crucially he made the decision based on this way of thinking.

Here he is using his experience of developing and selling a similar building in a similar location as the basis for the decision-making. Transplanting what he can sell it for, what the refurbishment will cost and therefore what he should buy it for from other developments to this situation means he can quickly make up his mind on whether it is an opportunity for him. Although not articulated, he is implying that the cost of refurbishment is a lot more than the cost of refurbishment implied in the price. The assumptions that are implied here are that he can refurbish the property quickly so that costs and values will not deviate too much from current costs and values.

Here he discusses another early editing of a development site opportunity that he decided to invest in.

> "They (selling agents) were guiding €2 million and I thought that sounded cheap just by looking at comparisons across the city such as a tiny crappy pub on (names a good quality city centre street) for €3 million. There was also half an acre up for sale (names a street 1km from the subject site but was closer to a Luas-stop) and it cost €17 million. This was €2 million for a third of an acre. I weighed it up, it was also empty. Most people were not interested as there was no income. It ruled out developers as the building was complex. There was permission on it 10 years ago. Then I heard 10 months later it was still for sale so I went for it." (PD05)

He outlined that he was too busy when this building initially came on the market. However, once it was still on the market 10 months later, he decided to buy the site. What he doesn't mention is that the building in question was very complex as it was on a protected structure list. However, his personal preference was for complexity in the building projects. Despite the additional costs he enjoyed developing and refurbishing complex structures. Most developers would not get involved in a building that required extensive and expensive renovations. Therefore, in this instance, there was another

motivating factor other than profit and that is this developer's desire to develop something creative and complex. Importantly these are all market entry and exit decisions that are those closely associated with the crucial entrepreneurial decisions (Shepherd et al., 2015, Busenitz, 1999).

8.3.2 It's emotional

The conceptual framework for the psychological aspects of decision-making in this research acknowledges the role that emotions and affect play in decision-making. This section builds the argument that for some decisions, property developers rely on an emotionally charged process to make decisions. It suggests that it is the quality of the emotion associated with the decision that drives it forward. The specific decisions will be examined in Section 8.4 below. For now, an exploration of the process takes place.

The literature highlights one of the strongest qualities of intuitive decision-making is that it has an emotional and somatic quality. An analysis of the qualitative data revealed that developers experience intuition in similar ways. Here developers discussed their rationality for a specific decision.

> "What our sense is, what is our feel" (PD11)

> "I knew the market and sensed it". (PD02)

The physical sensation of the intuitive response provides a certainty for developers. They physically feel their intuitive decision is right. This feeling comes from the fact that they experienced this before and crucially it was a successful decision.

Feldman Barrett's (2017) research on the constructed emotion is ground-breaking and challenges a lot of the research on the dual-process theories of cognition as discussed in Chapter 3. This section considers how developers experience intuitive decisions physically in the "internal milieu" (2017: 5). It examines how this type of decision-making often has a physical quality to it. The so-called "gut feeling" explanation of intuitive decision-making draws attention to this. Here are how some developers explain how they experienced the decision: PD07 explains

> "It is about having a gut" (PD07).

PD03 describes a prominent property investor developer as follows

> "(names a high-profile developer) smells the roses"
> (PD03)

PD03 is suggesting that this developer has more of an appreciation of the market value than other developers or participants in the market. PD02 says

> "Unless I smell value, I'm reluctant to look at a site"
> (PD02)

The idea of the physical and emotional experience of intuition has a long history in the intuitive decision-making literature (Patton, 2003; Gigerenzer, 2007). In this way, conscious deliberative thought is not evident in the process. What is evident is the regularity of the feeling creates a habit that results in a "gut-level or becomes part of muscle memory" (Patton, 2003:993). All these statements refer to a continuous process, not a single event that happened in the past. This illustrates how experience followed by a successful outcome serves to sharpen and develop this as a habit that can be used again in the future. Remarking on other developers approaches to intuitive responses PD09 explains that

> "There are some developers who aren't well educated who have remarkably good antennae for detecting over-exuberance" (PD09)

In this comment, PD09 is suggesting that some developers have a sense when people act in a biased fashion, and they can detect it and act on it by recognising a good time to sell.

PD04 outlines his strength of feeling to act in the market. He describes in the quotation below that he acts on his intuition on market timing, as there was no data-driven evidence to assist with the decision-making.

> "I make a call on where we are in the market, current prices don't show it but to act I have to make a call. I could feel that a substantial fall was coming. I sold land at this point, I sold all my residential zoned land. Then the recession happened 2007/8". (PD04)

In this instance, he described how there was an emotional quality or "sense" to the decision. This supports Baron's view that where there is an emotional quality to the

decision, it can often "tip the balance towards a specific action" (Baron, 2008:329). When asked how he knew a fall was coming, he described a set of disparate data where he "got all sorts of background data". Importantly when pressed further he could not elaborate; however, it was clear the decision was made in this way. This developer follows up with this insight

> "The difficulty with the land is that once there is a movement in the value of the finished property it is accentuated in the land, as this is the only elastic piece in the jigsaw." (PD04)

This statement reveals his keen understanding of the relationship between capital values and land values and the residual valuation 'jigsaw' that is very difficult to thread together with specific property market data. He drew on the sensitive relationship between the finished capital values of the completed building and the development land values. Any movement in the capital values of buildings has a more pronounced effect on land values. By relating these two sentences together he is suggesting that an intuitive decision had to be made because 'current prices' do not reflect his reality, which happened in this instance to be correct. The powerful influence of being proved right encourages developers to continue using this process to determine this type of decision. In common with the entrepreneurial literature developers' intuitive responses are affective, they are strong enough for them to act on and they are common to all developers.

PD11 who works for an international development company explains how decisions for different prospective opportunities are made.

> "If you can't explain it in one page you are wasting your time. Crucial things on the page are, the deal, the real estate, the location the development the macro-micro of it." (PD11)

Acknowledging that human decision-making has cognitive limitations, the salient factors must be distilled into a few key points. However, what is clear is the diversity of the information that is fed into the process. He elaborates further:

> "Rents at say €25 per sq. ft. and maybe at last they peek at €33 and if it was there and thereabouts with Manchester or Liverpool then it wouldn't sound out of the question. If it was €50 you know it doesn't feel right. On the two pages are a map. You know who is around you,

> you feel it. All very straight. What is important is one page. Simple." (PD11)

The key information is all on a page, the information is numerical without any elaborate quantitative analysis. The information is qualitative and quantitative, which he weaves together into an emotionally charged intuitive decision to go ahead and purchase a site as he says you 'feel it'.

By using key pieces of information attention can be drawn to the diverse information that went into the decision-making process, but the process itself was unconscious, often physically experienced and automatic. This process of intuitively joining the dots across diverse information is a recognised way for entrepreneurs to make decisions (Busenitz, 1999; Sadler-Smith, 2015)

8.3.3 Experience matters

What is also interesting is how some developers indicate a willingness to learn from their experience and from what they observe in the development market network. This is an important aspect to intuitive decision-making. Hogarth underscores the important aspect as

> "In developing some intuitions, we may in fact be aware of the learning process but, with the passage of time, the reactions acquired are likely to be automated such that one is no longer aware of the fact that they are being reinforced and adapted by experience." (Hogarth, 2010:343)

Experience is a crucial element of employing intuitive decisions and the conceptual framework used here. In the following comment, PD10 (novice developer) outlines how he will amend his strategy in the future, here he concedes that he got the timing right, but the funding of his development prospects could be improved.

> "I will wait until the market crashes then set up the funding platform and buy up all the land. Not just offices. That is where I went wrong" (PD10)

There is plenty of evidence that suggests that decision makers that rely on heuristic devices are prone to errors. Chapter 3 reviewed much of this material. What is interesting here is the way he is reflecting and learning on his own internal process. This developer is a novice developer as this was his first development cycle. He saw evidence of other equity

investors setting up funding platforms that allowed pooled funds to be raised in a tax-efficient way to gain market presence in a much greater way. He does not question his decision-making process, only his funding mechanism. He suggests a new way of funding his developments so that when the "market crashes again" he will have his heuristic device ready to call on to begin funding and developing, only this time to a much greater extent.

Intuition has been differentiated from analytical processing of information in this research. A more traditional understanding of how the brain processes information is found in the dual processing models of thinking. This acknowledges that when processing information, the brain can become split into two different systems or have two different ways of thinking as "two minds in one brain or a brain at war with itself" (Stanovich, 2004) cited in (Evans, 2008:268). It is evident that in their deliberations, property developers consider property development costs, values and profits when decisions are made but the question of how this information is processed to arrive at a decision is unclear. The question arises - how do the two processing systems interact and eventually take control over behaviour.

Some developers discuss the instinctive decision first then a reference to numerical analysis occurs after this.

> "I see a site and know in my gut that the value is there.
> Then I do my numbers". (PD01)

> "I use my gut, but I will substantiate it" (PD02).

Numerical analysis is used to substantiate the gut in these instances. There is some consensus that the key numbers derived from their network of relationships are used to edit choices and back-up intuitive decisions, particularly with novice developers who have not learned to fully rely on their intuitive decisions. Other developers then discuss intuition and analysis as working in parallel however, this more frequently refers to a general strategic approach. PD01 outlines how he developed his strategy

> "I have been very aggressive over the last three years I have geared up a lot of the deals as I think the timing was right. Interest rates are extremely low, and values were rising so it makes a lot of sense. Strike while the iron is hot and grow the business aggressively in that environment" (PD01).

The aggressive borrowing and buying strategy outlined above are typical of speculative development. It is not the fact that current interest rates are low, and values are rising what is important to his strategy is that he predicts that this will continue. Then he evokes the proverbial heuristic "strike while the iron is hot" to support his belief, repeating a well-known saying that is understood to be true. Again, PD07 reinforces the point that experience drives intuitive responses (Hogarth, 2010). In response to being asked about how she makes decisions PD07 stated:

> "Certainty, it is about having a gut, I've been doing it for donkey's years now, if you are looking at a scheme and the costs are likely to be less than the overall GDV, you probably have a gut on that" (PD07)

As a result of the experience of observing the costs and values and their relationship, an intuition develops. The reference to the "donkey's years" describes the length of time and the nature of the task and how she learned to rely on her intuition. When asked to elaborate on these statements, developers could not point to a line of thinking that led them to this conclusion. It had an automatic quality. This description of the decision-making process chimes with Gigerenzer's description of an intuitive decision "appears quickly in the consciousness, whose underlying reasons we are not fully aware of and is strong enough to act upon" (Gigerenzer, 2007: 16). This illustrates an associative and unstructured quality to the way this decision was made.

Developers can assess the specific sectoral supply and demand once the information is available. As PD07 explains in her analysis of what to develop in a certain location

> "The view on retail then was poor. I knew this by looking at patterns of shopping and trends; we funded a lot of research. E-commerce doesn't affect all retail the same. There are very different profiles e.g., Fashion, food, cosmetics are all very high, depending on what report you read they are affected by 14-30% by online shopping. We funded a lot of research into future trends, looking at Europe, restaurants, foods. Unlikely that dept stores will last" (PD07)

Where information is the most uncertain at the beginning of the development process (Chapter 2, Section 2.2.1) the creative decisions and reliance on old 'rules of thumb'

heuristics to make decisions is favoured. This point is central to the research and developed further in Section 8.4 below. PD10 makes the point:

> "There are only two things that will be around in the future. People need to eat, and people need to live. You can downsize for offices and shops. Some people said I was too linear, but you can't opt-out of living somewhere." (PD10)

Following the GFC this developer only targeted sites on the waterfront. Others criticised him for not being more ambitious at the time. He also saw his competitors acting more ambitiously.

This section highlighted the fact that the developers regard themselves to be entrepreneurs. Here attention has been drawn to the fact that all developers attribute some decisions to intuition or gut feel. This is particularly the case when the information available requires associative processing. The fact that decisions are physically felt somewhere in the body gives power to that decision. A crucial aspect of this type of decision-making relates to the nature of the decision. They tend to be long term, related to estimating a point in the market cycle and are strategic. Over time and through the repeated telling of a particular decision being made by the gut, the habit is formed.

8.4 When to rely on your gut?

At certain times in the development process, the nature of the information and the relationship between different types of information means that sometimes developers must rely on their intuition to make decisions. This is fine-tuned with information cues from the direct market, where they use actual prices from either land and buildings they have bought and sold. Information is also gleaned from agents and wider economic data from the development market network. Intuitive decision-making was evident across most developers interviewed. What is striking is the fact that this research found that intuitive decision-making is mainly used in the early evaluation and opportunity spotting phase. This is recognised as a key skill of the property developer where Adams, Croudace and Tiesdell state that a "developer's expertise is often seen to lie in…..spotting opportunities (location).." (2012:2582). In the entrepreneurial literature, intuition is described as being used for decisions concerning the evaluation and assessment of opportunities. (Shepherd et al., 2015; Sadler-Smith, 2016)

8.4.1 The right place

This research design distinguishes between experienced and novice decision-makers. However, both experienced and novice developers experienced intuitive decision making. Both types of developers experience a feeling that encourages them to act on this decision. In discussing how they assess sites for purchase, evidence was provided in Section 8.3.2 earlier on how they made this assessment using intuition.

PD10 explains in detail the lack of analysis and the existence of an intuitive decision on development sites

> "Buying a site is all instinct/gut. No one knows what the rent will be. Buying a site with planning permission is a complete numbers game, what will I get on the site what is the total look for my deal". (PD10)

Here he is reverting to an appraisal logic. To quantify a value for a commercial site without planning permission, a rental figure for the completed building must be arrived at. Alternatively, where extant permission exists greater certainty can be relied upon, therefore it is a numbers game.

PD10 is a novice developer that had a lot of capital capability described in Chapter 7. He was very aware of the fact that this was his first foray into the property development world. He illustrated a keen sense of confidence in his ability to make the right decision, and often this was based on drilling down to basic heuristic rules such as

> "I bought all the office sites on the waterfront because I knew people would always want waterfront property" (PD10)

Two important conclusions from these comments are that firstly the assessment of the site comes down to a "gut feeling." Second is the reliance on adages of demand for waterfront properties. Another experienced well-resourced commercial developer (PD13), who works for an international developer recounts the way they make location decisions:

> "We want to know is it on 'main and main" (PD13)

What he means here is that is the property in a prime area, at the intersection of two main streets. Ignoring the simplistic application of the location, location, location adage, when asked for specific examples and challenged by the difficulty of establishing exactly what

'main and main' is in a real-life location he suggests that they only develop in "Prime or CBD [Central Business District] edge" areas.

It is interesting that this type of developer prefers the more established areas of the city and under normal circumstances do not consider areas that are less well developed. Explaining his choice of location, PD10 outlines a guiding principle he used to buy development sites in 2013. The use of simplistic proverbial sound bites is often synonymous with this type of decision-making where the complexity of a situation can be reduced to a simple idea. It is also important to reiterate that this statement was made in the context of extreme uncertainty in the Irish economy early on in the decade under study (Chapter 5, Section, 5.3). The view stated here was made in the context that nothing was certain anymore and only the most basic and rudimentary proverbs could be relied such as the fact that people need places to live and somewhere to eat.

PD09 explains how he gathers together different types of information and uses the 'deficits' mental short developed over successive years as a successful property developer:

> "Most of what I do is based on deficits. For example, with the nursing homes sector, there is plenty of scope for more people to build more nursing homes. They are different because you have to get people to run them. We have 1,000 people employed in it. You don't need to wait until there is a crisis. We are not giving them to some other group to run as we have decided to do it at scale".

8.4.2 The right time

Throughout the discussions with property developers, intuition is often used to explain the assessment of the market cycle. Estimating where the market is at is carried out by gathering up a diverse set of specific property, general economic and wider cultural information to make decisions. This type of decision-making is specifically associated with site purchase or sale decisions and the ability to rely on heuristics such as the cyclicality of the market. Here we see how the novice developer PD10 bought several sites early in the development cycle:

> "I bought 5 sites in the city centre in 2013 I spent other people's and my money and spent about €40 million. I then brought in private equity (names the company). I got an

> appraisal on the sites. I went to (names a well-established commercial valuation firm) and they did the valuations and came back and said that there was no value at all on these sites. That was gut, based on repeating of the cycle. That is the start of the cycle. I am 38, this is my first cycle." (PD10)

> "No one buys Grafton Street[53] because of the gut. I knew that when the market kicks off again, the city centre was going to be where it was at so I bought all the office sites on the waterfront". (PD10)

Using intuition to estimate a point in the property market cycle is underscored in PD09's comments also:

> "Calling the cycles. Reading the cycles. No point in buying the best site cheap if the market is going to go to Armageddon. There is no way of analysing it as there is no real data." (PD09)

All property and economically driven data are historic whereas developers' decisions are made on expectations of future gain. This is a crucial point. Some relationships between the past and the future can exist, but they may not stay the same from cycle to cycle. New influences can come into play that can potentially result in a situation that might resemble 'Armageddon'. Therefore, developers have to remain flexible and responsive and as such tend to rely on a feeling or intuition for the site purchase decision at specific points in a cycle using a variety of information cues in an associative manner.

There are several ideas intertwined in these statements that require some teasing out. First is the fact that intuition is often used at the site purchase decision time. Evidence of how PD10 did that in 2013 is given above. PD09 reflects on what is the most important decision in the property development process and here it states it is about being able to estimate accurately what is going to happen next.

Fundamental beliefs and heuristics are that "market crashes again" (PD10) and that there is a cycle that can be relied upon.

[53] Grafton Street is the prime city centre retail street.

When discussing the market cycles PD04

> "Because recessions happen every 5 to 8 years and it was now 10 years since the last crash, we knew something was going to happen. The question is when and how deep. Usually, there is a trigger or shock to the system. Whether it is a trade war, a Brexit but it will be something. Our sense is it won't be as deep this time. A more normal type of recession is expected this time. Values might drop by 20% and land by 40%." (PD04)

PD04's 'sense of things at the moment is that the market had reached the top. Based on that they have sold a large portion of their investment property in the last 10 months. The statistical analysis reveals a market length of between 5 to 8 years for real estate, based on their statistical analysis which is at odds with the reality of the current 10-year cycle. So, he reverts to a 'sense' of where values are and are going to go. This is not the first time that this developer acted on their view of the market cycle.

> "We had sold a lot of development land in 2005, 2006, 2007, so we were cash-rich. We could see that something was coming down the track and we decided to sell land to get a war chest." (PD04)

PD08, PD11 and PD04 describe how they use intuition to spot opportunities. This conforms with Adams & Tiesdell, (2013:145) description of a developer's role in the development process. Development opportunities can relate to a specific location, a sector or a time in the development cycle. Again, intuition is used to inform longer-term decisions. The following reveals how uncertainty in the data, depth of data, the inappropriateness of data also lead them to iterate between the information cues. An intuitive decision-making process ensues on the site purchase and sale decisions and market turning points.

PD08 illustrates how he pulls together different types of information and, through an intuitive associative decision-making process arrives at a choice:

> "I am looking at two sites at the moment in the same area that although they are different sizes can get the same number of units on them, one site is cheaper than the other. Then you look at the demand in the area. But again, that comes back to the gut, what is

> the depth in the area? How can you make that call? Agents might say you can easily sell 2-bed apartments in that area for €500,000 each but am I gonna be sitting there with all these units and if it takes 2 years to sell these, and my financing costs are 4%, that it very quickly goes into the red." (PD08)

It appears clear that assessing the depth of demand and level of market pricing is one of the main factors for making intuitive decisions. An experienced, successful and prolific developer (PD09) gives an example of how he uses the simple editing of choices not only to buy or sell a site but also a turning point in the market.

> "When the crash happened in 1982, I had substantial assets. There was a site for sale in (names a Georgian office building on a prime city centre street) so I decided to go to the auction myself. The opening bid was 15% higher than my assessment and it went 3 times what I expected. So, I went in and sold everything the next day. If you don't understand what is happening, then you are just daft" (PD09)

This developer is a large-scale developer who has operated over several successive development cycles in Dublin. Though this example was quite some time ago, it stuck in his memory as a successful decision. This is not the first time he has recounted this story. His decisiveness and reliance on his intuition at that time resulted in a successful decision as market values fell substantially. By retelling the story, he is hard wiring the decision-making process and the fact that it was a success is key.

Intuitive responses therefore, are strong enough to act on them. Here an experienced developer discusses the situation where and outlines how, an intuitive decision occurs and how it is acted upon:

> "Key part is to act on your point of view. People keep saying the same thing but don't do anything. Act is the most important. Otherwise, you are a sheep." (PD04)

PD02 experienced developer outlines his views as follows:

> "I have to identify an opportunity to add value and execute on that. Rarely is there a 'master stroke'. It is doing 'it' that is important, and most developers are doing it". (PD02)

Novice developer PD05 describe a similar situation

> "I took a view when I went into it. I took the view that it was only going to get better, but I didn't think it would be as good as this" (PD05).

This developer set up his development company in 2010. With hindsight, it is easy to see how he considered that things were "only going to get better".

8.5 – Conclusion

This section stressed the role that intuition and emotion play in specific decisions in the development process. It draws attention to the developer's role as an entrepreneur, and in so doing, it underscores an essential characteristic of the property developer. By doing this, it sought to address the research question: To what extent is intuition used by property developers in the development process?

Though the findings in this chapter indicate that intuition is used by most of the developers in this study, they also reinforce the view that entrepreneurs are more likely to make intuitive decisions (Mitchell et al. 2005). In addition, conditions for intuitive processing are primarily drawn from the uncertain environments in which entrepreneurs are known to operate. McMullen and Shepherd (2014) outline that an uncertain environment is a conceptual cornerstone for most theories of entrepreneurial behaviour. Entrepreneurs differ from non-entrepreneurs because they are more likely to act in uncertain environments. Section 8.4 above has illustrated how property developers act in uncertain environments using intuitive decision-making. The qualities and characteristics of the uncertain environment drive the associative and intuitive processing described in Section 8.3.1. This idea underlines the importance of entrepreneurial activity in the economic cycle.

A more radical view of this can be taken when it is considered using the socio-cultural lens employed in this research. This perspective stresses the importance of social conventions and the significance of cultural devices that help to perform market activity (Smith, Munro and Christie, 2006; Wallace, 2008; Weber, 2016; Crosby & Henneberry, 2017). Market participants use cultural devices such as performance metrics and the notion of market

cycles to help structure meaning in an uncertain and complex market. At the same time, the notion of the market cycle provides an incentive structure for property developers to talk about and base their development decisions upon.

Notwithstanding this, the findings in this chapter unearthed a lot of data suggesting that property developers discuss, contemplate and use the notion of the market cycle differently. Evidence was provided that property developers made market entry and exit decisions based on their interpretation of a specific cycle inflexion point. They suggested that in the future, when the market crashes, they will gain access to even larger pools of funding or purchase even larger tracts of development land. This finding supports Weber's (2016) work on the performative nature of the market cycle and as a device that has cultural meanings in the development market network. When viewed through this cultural lens, the notion of intuition as an explanation for decision-making could also be seen as a device. Only notable developers are credited with 'mystical instinct' (Guy, 2002: 252), whereas this research has shown that competitive advantage is often gained through social connections. Through these influential network relationships, access to capital is gained at times when the majority of developers face capital constraints.

Perhaps, more importantly, is the increased risk that this type of behaviour introduces. Once novice developers learn to rely on the notion of the market cycle, they have been shown to be emboldened to engage in even larger development projects. With the onset of a more financialised world, property developers can now access larger pools of collective investment funds. Greater degrees of sophistication in financial engineering also facilitate this. Property developers' behaviour is feeding into an even more pronounced market cycle which incentivises this behaviour. The evidence provided here illustrates how developers are aware of this impact.

This research acknowledged the diversity in the developer population (Coiacetto, 2000; Guy, Henneberry and Rowley, 2002; Adams and Tiesdell, 2010; Adams, Croudace and Tiesdell, 2012), which helps to add increased granularity to these findings. The evidence does not suggest that all property developers engage in this riskier activity. Indeed the findings in Chapter 6, combined with these findings, indicate that experienced place-based developers in this study had a more conservative attitude. Their plans for the future do not entail even greater amounts of funding or larger development projects. They prided themselves on not engaging in riskier lending and, therefore, not ending up in NAMA, working out their loan obligations.

Emotion is an essential element in this complex and interrelated intuitive decision-making process. It is clear from the recent advances in neuroscience (Feldman Barrett, 2017) that the brain is not the battleground between rational and passionate. Instead, it is constantly predicting. Chapter 3 highlights how experience helps to understand and predict the future for the external and the internal milieu (Feldman Barrett, 2017). Baron suggests that it is the link between affect (emotional state) that "tip the balance towards a specific action" (Baron, 2008:329). Finally, this chapter foregrounds the decisions primarily driven by intuitive processes. Intuitive processes often drive early decisions regarding the purchase of the site.

PART 3 CONCLUSIONS AND CONTRIBUTIONS TO RESEARCH

9.1 Introduction

This final chapter pulls together the theoretical and empirical strands of this research. The intention is to find significance in what has been uncovered and establish the extent to which the research agenda has been advanced. First, the original aim of the research is reconsidered, the research questions are reviewed with the important findings brought into sharper focus. Second, a reflection on the important methodological developments this research offers and finally, a more reflective discussion opens out the main ideas to future research, considering the limitations the study had to contend with.

9. 2 Revisiting the starting point

The origins of this research are rooted in the concerns that arise from the traditional models of the development process and that real-life decisions are based on rational neoclassical logic. Though the traditional models successfully describe the complexities and events that make up the process, they failed to recognise several points. First is the influence of the social processes (Adams and Tiesdell, 2010; Varna, Adams and Docherty, 2020) and associated cultural practices (Smith, Munro and Christie, 2006; Weber, 2016) which demonstrate markets are essentially socially constructed. Second is that property markets are "deeply contextual" (Guy and Henneberry, 2000: 2413) and finally, that property development is often problematic and does not occur in a "timeless framework" (van der Krabben and Lambooy, 1993: 1383). The research put forward here is designed to address these socio-cultural perspectives.

The counterbalance to these social complexities are the entrepreneurial characteristics of the property developer within this process. Adams, Croudace and Tiesdell (2012) drew attention to the fact that, from a policy perspective, there is a limited understanding of what motivates an individual developer to go ahead with a project. Coiacetto (2001) emphasised the importance of research recognising diversity in the behaviour of property developers. An essential aspect of this research is that it also considers the individual developer motivations and how diverse their attitudes and behaviours can be. The research presented here has explored how decisions are made by drawing together two broad theoretical perspectives, sociology and psychology.

This positions the research's overall aim, to examine how property developers make decisions in a spatially and temporally significant process characterised by complexity,

uncertainty, and imperfect information. This was subdivided into three researchable questions:

1. To what extent does property developers' embeddedness in local development market networks give them the ability to manage uncertainty, filter information, and inform decisions and strategies?

2. Under what conditions and to what degree is intuition used by property developers as a decision-making heuristic in the property development process?

3. To what degree can an exploration of embeddedness in local development market networks and use of intuition shed light on Adams and Tiesdell's (2010:199) "place-based and non-place-based" entrepreneurs?

These research questions provided the analytical framework that unfolded in the preceding chapters. This study follows in the footsteps of a rich tradition of city-wide case study research into individual developer behaviour and decision-making (Beauregard, 2005; Charney, 2007; Coiacetto, 2001; Rosen, 2017) and builds on the growing body of work on the importance of networks for understanding how developers achieve their objectives (Adams, Leishman and Watkins, 2012; Brill, 2018; Varna, Adams and Docherty, 2020). From these studies, several methodological aspects are apparent, that any examination of property developers and development has to be considered in the context of the specific locale and timeframe. The addition of the psychological aspects of decision-making brings a new dimension and conceptual approach.

Moreover, this study confirms aspects of these and other studies on developer decision-making. It uncovers new information that drives the research in this area forward. A novel approach to collecting research data could inform how future research in this area is put forward. The final sections of this chapter outline the limitations of this study and suggest directions for further investigation.

The development market in Dublin has proved to be a rich seam for research that sought to explore how property developers make decisions. First, activity in the development market has gone through several distinct phases, which helps draw a boundary around the institutional framework within which development took place. The 'home grown' nature (Chapter 5, Section 5.3) of the economic collapse in Ireland following the GFC, coupled

with the onset of Covid-19 neatly book-ends this decade to draw out the significant institutional arrangements that provided a framework to decisions during this time.

Secondly, an 'Irish' approach to development revealed several important aspects of this local development market. For instance, though ultimately flawed, the conventional approaches to developing property were very effective in the years leading up to the GFC. Large amounts of capital were mobilised, and this led to the development of many offices and residential properties. MacLaran (2010) drew attention to the fact that this development cycle produced the 5th successive office boom since the 1960s, and this was characterised by office developments that were fewer but larger, also had the effect of creating fewer and more powerful property developers. This point was reinforced by the findings of the official enquiries (Regling and Watson, 2010, Honohan, 2010, Nyberg, 2011) into the collapse of the banking system (Chapter 5, Section 5.3). The enquiries revealed that the majority of property related debt was concentrated in a small number of debtors. Added to this was Nyberg's (2011) assertion that there were crucial flaws in the lending practices of the major banks, where the strength of relationships between the banking executive and the debtor were decisive factors. This suggests a strongly socialised and networked development community that is keenly aware of how social the development process is. As one seasoned developer remarked for him, to develop properties:

> "You need patience, deep pockets and good contacts" (PD03).

This set the scene for yet another development cycle which began with a group of experienced developers ready to start developing again. This time they had a solid financial and institutional imperative in the form of NAMA (Chapter 5, Section 5.3) as many of the developers were working out their loan obligations. This research has uncovered how the rules of the property finance game had changed dramatically during the study period. Facilitated by legislation implemented by central government, an array of new funding mechanisms changed the structure of the development market. From 2010 onwards, private sector developers mobilised local and international funding networks to begin the development process again. The Irish Government's role in this is not to be understated. Policies were designed to enable capital to flow both locally and internationally. Chapter 5, Section 5.2 drew attention to this and a significant increase in urban development policies and guidelines that facilitated locations and sectors. These policies and guidelines had the

effect of further disempowering local planning officials and deepening a rift between local planning executives and the development market.

Over the last three decades, the Irish government has increasingly relied on the development industry to stimulate economic growth and, more recently, to direct international capital into real estate assets and development. This was evident in the tax incentive era of the 1990s and again in the so-called Celtic Tiger decades of the 2000s, which ended dramatically in the 2008 crash. This habit has been well and truly formed, and the same story unfolded in this most recent development cycle as described in Chapter 5, Section 5.4.1. For these reasons, the development market in Dublin over the decade beginning in 2010 offered rich opportunities for examining how property developers make decisions.

Conversely, the theoretical perspectives required a more nuanced approach. Chapter 2 drew attention to the fact that a fully developed theoretical perspective that explains the complexity of the development process has yet to be conceived and Chapter 3 explored the theoretical perspectives of the decision-maker. These two factors made it challenging to weave together a novel conceptual framework. Nevertheless, the methodological approach adopted drew on two intricately connected theoretical perspectives, one grounded in socio-cultural perspective and the other more broadly grounded in psychology. The conceptual framework (described in Section 3.6 and illustrated in Section 4.2.2) is built on the widely acknowledged principle in both these theoretical perspectives that decisions are made within the context of the external spatial and temporal environment. The socio-cultural dimension is grounded in the view that rules, relationships (both formal and informal) and networks of relationships drives the decision making process (Beauregard, 2005; Charney, 2007; Adams, Leishman and Watkins, 2012; Henneberry and Parris, 2013). The psychological dimension acknowledges that entrepreneurs make decisions in complex uncertain environments and because of this are more likely to rely on emotionally charged intuition to make longer term more strategic decisions (Busenitz, 1999; Mitchell et al. 2005; Baron, 2008). A strong unifying theme in both perspectives is provided by the fact that emotions are seen as strong drivers of decisions and actions.

The popular conception of how property developers make decisions is based on pure profitability calculations. This research follows many highly respected researchers that challenge this (Guy et al., 2002; Henneberry and Parris, 2013). The property development literature suggests the significant issues of complexity, time and uncertainty, render

calculations and appraisals of limited use for decision-making (Healey, 1991; Guy and Henneberry, 2000; Guy et al., 2002). Even though there is well-established opposition to this type of analysis, it is commonly assumed that all developers behave the same way, and all developers respond automatically to price signals. This study has shown that property developers succeed in development cycles and locations by relying on simple heuristic devices like the belief that the separate market "cures all" (PD10). As long as this belief is common to funders and developers, then the market cycle will continue to turn.

Statistical and quantitative research strategies could not help address the questions asked here. The exploratory aspects of the "how" and "why" questions embedded in this research suggested a qualitative approach, and where context needs to be handled, the case study is ideal. The extent to which the findings here are generalisable is based on evidence found in existing theoretical concepts in the literature on how property developers make decisions. The three research questions provided an analytical framework for the results, each one will be dealt with in turn. The first research question asked:

> *To what extent does property developers' embeddedness in local development market networks give them the ability to manage uncertainty, filter information, and inform decisions and strategies?*

The notion that property developers embed themselves in local development markets is well established in the property development literature (Charney, 2007; Adams, Leishman and Watkins, 2012; Henneberry and Parris, 2013). This research confirms the case in the Dublin development market and specifically draws out how certainty is achieved through the active management of the formal relationships and rules. Furthermore, this research establishes how market information vital resources are accessed and conventions learned through informal networks of relationships.

9.2.1 Embedded in Informal networks and information certainty

The institutional arrangements for property development in Dublin is outlined in Chapter 5. The conceptual framework outlined in Chapter 3, Section 3.6, distinguishes between relationships with the public and private sector. Relations and embeddedness were considered first with the private sector (Chapter 6) and then with the public sector (Chapter 7). Local development market private sector networks are characterised by a level of informality that is in stark contrast with relationships in the public sector. Conventions, more than formal rules, and informal relationships are typical within this network. The

crucial networks in this research centred on developer funder, end-user and to a lesser extent, local intermediary.

A novel aspect of the findings of this research is the depth of evidence uncovered in the developer-funder network. This is a key network relationship in the development process; property developers can only drive projects forward with capital capability. The relationship between property and finance has a history of ending in disastrous outcomes for banking systems (Herring and Wachter, 1999). Such a scenario played out in Ireland at the beginning of the study period as the Irish approach to development finance almost ruined the Irish banking system. The findings also bring the property developers role as a linchpin between the local banking sector and the investment sector into sharp focus. The downfall of this market cycle, though, was attributed to loose banking rules and regulations and, notably, the importance of relationship banking uncovered in Chapter 5, Section 5.3. What has yet to be determined is how international capital changes the nature of local property markets.

This research confirms that informal networks provide a conduit for market information (Charney, 2007; Henneberry and Parris, 2013) and offer new insight into shaping decisions and actions. Moreover, it provides new insights into how developers responded to change during the decade. It reveals this network's flexibility in developing new conventions and connections to respond to a different market context. In Dublin, this was played out in the development finance market. Whereas the landscape for development finance appears to have been sourced mainly from the domestic banking sector in the years before the GFC, in the years that followed, the capital was initially sourced from private equity contacts and quickly followed by international finance. Here it was shown that some developers could scale from the local to global financial networks with ease (Brill, 2018). There was ample evidence that international finance began to filter into the Irish development market in the decade's early years. One developer revealed that in 2019 when the interview took place, there were "50 foreign lenders in the market" (PD04). Another drew attention to the weight of capital that was eventually felt in the Irish market where investors wanted to know "can we pour money into it" (PD10). The research uncovered that relationships with these lenders were more professional and loose rather than deeply personal.

This robust network provided a channel for funders to learn "how the system worked" (PD10). One of the ways this was done was through investor "roadshows" where the local relationships developed over time through domestic banks to local developers made

introductions to international investors and developers. Information was filtered by local banking relationships to international investors. This is evident in Chapter 5, Section 5.3. This analysis reveals that almost 20% of the total developed space was attributable to international developers. Although there is no quantitative evidence to suggest that this had not happened before, one developer revealed that it was the first-time foreign lenders were active in the Irish market.

The research points to interesting insights on the power of personal relationships and how they are used to unlock capital sources that can facilitate action when others are constrained. This is in the form of private, personally sourced equity contributions. This is a significant funding stream for some developers, and they spoke about it in hushed, reverential tones. Access to capital such as this, allows early participation in the development cycle. One developer calls it "internal sources from people we know" (PD03); another developer calls it "30-year money" (PD04) and "family money" (PD10). Very tellingly, PD10 called it the "nicest equity you will ever meet". To get this type of money, you need long term, deep, trusting relationships which are more reminiscent of "networks of communality" described by Henneberry and Paris (2013: 233). These findings support the important conceptual link between the social and psychological aspects of the conceptual framework. That the entrepreneurs are more likely to be successful at developing social networks and therefore gain access to crucial capital capability when they experience a positive emotional state, this helps to reduce and absorb any uncertainty in either a project or future expectations (Baron, 2008).

Another distinction between public and private sector networks is the influence of culture on how deals are performed. McAllister et al. (2013) suggests that development valuation viability modelling helps local authorities to demonstrate land use and other planning policies are financially feasible. Henneberry and Roberts (2008) found that the creation of investment portfolio management techniques such as benchmarking profoundly affects how institutional investors select their property investments. The research presented here extends this work. It has been found that property developers use cash flow valuations to secure funding. By transforming a complex process down to a simple number or set of calculations, uncertainty in the transaction has been minimised. The power of the "spreadsheet" and understanding the benchmark metrics required means that developers know "what they have to achieve". Developers use in-house calculations and spreadsheets

and don't trust this to local valuation firms. Despite this, the role of the calculations remains to assist in acquiring funding.

This research brings short term-decisions into sharp focus as information is filtered through network relationships. It illustrates how an understanding of the development process must appreciate the importance of time. The characteristics of this network include informality, fluidity, flexibility, and change are inherent in this, and it is clear that short-term decisions are made with this information.

9.2.2 Distant relationships

The institutional framework for property development in Dublin is outlined in Chapter 5 revealed that the legislative framework for the Irish planning system and the significant changes that occurred over the decade requires high degree of sophistication to navigate successfully. Attention was drawn to a hierarchy of plans designed to direct development nationally, with one for each local authority area and even locality. The national and regional guidelines provided another layer of rules. This complex web of formal rules provided certainty and uncertainty in the development process. Certainty is provided in areas such as planning permission and land use zonings. Conversely, the changes in the rules and guidelines, the discretionary aspects of development control, and the consistency of decisions at the local level provided considerable uncertainty.

The extent to which governments can "shape, regulate and stimulate development through planning and other forms of intervention" (Adams, Croudace and Tiesdell, 2012: 2578) has been the subject of a lot of research. National government filters messages to development actors to coordinate and direct development to places and sectors. Though housing was fast-tracked with the SHD (Strategic Housing Development) legislation implemented in 2017 and new apartment guidelines in 2018, an analysis of development activity in Dublin during the decade revealed that developers had already moved in this direction. Crucially the changes implemented by central government served to shape relations between major actors in the development process – local planners and developers. By privileging locations and development sectors and empowering An Board Pleanála the cultural difference between these two important actors was enhanced. This deepened an already weak and distrustful relationship between property developers and local authority planning executives.

This research provides evidence that where the views of the central government do not align with what a developer thinks is appropriate for their locale, they find ways of circumventing it. One of the developers achieved this by breaking up a site and splitting the planning permission so that high-density development would not be required. High-density developments were not appropriate for the area he had spent years shaping into a desirable residential area. Though substantial economic benefits were gained from this strategy, the local area benefited from additional infrastructure, higher-quality housing and much needed local investment (See Chapter 7 Section 7.4). Another example is a developer who combined uncertainty in the development control system and his long-term strategic approach to gain increased densities and profits on a site he was assembling in a local area. This is evidence of Granovetter's view that

> "Actors do not behave or decide as atoms outside a social context, nor do they adhere slavishly to a script written for them".(Granovetter, 1985: 487).

This research reveals that some developers appreciate the power of reciprocity (Höppner, 2009; Adams, Leishman and Watkins, 2012) evident in the public sector relationships. The benefits are uncontested for those who appreciate the reciprocity. Quotations like "we will be coming back and back" (PD04) and "we always do what they say" (PD03) reveal the fact that in mobilising the power of this network of rules and relationships effectively, developers must spend time building up trust and in return for these reciprocal relationships they are rewarded with cooperative approach and "100% record on planning". This is quite a statement over a 30-year career.

Other evidence came to light to support this view that developers increase certainty by influencing policies to achieve their objectives. In Dublin, we can see this occurring at different scales, both locally and nationally. Evidence was provided where local property developers actively shaped local area plans and national policies. Though these developers were not always entirely successful (see Chapter 7, Section 7.4), these factors combine to confirm Leffers and Wekerle (2020) recent work on how developers use their relationships to influence planning policy in Toronto, Canada. Their research suggests that developers "influence and re-shape" rather than "bypass" the local planning policies. However, what is uncovered here is that developers influence, bypass and reshape policies in a process that is fluid and dynamic. In addition, Leffers and Wekerle (2020) generalise about developers,

whereas the research presented here asserts that not all developers are as well embedded and use this network as effectively as others.

If considered from another viewpoint, the formality of the rules prevents flexibility and quick response in the public sector to market realities. Often public sector responses can run in slow motion. This idea is not a new one. Williams (2008) highlighted the success of the 1990s tax incentives era and that they had the effect of overheating development because these incentives remained in place long after activity recovered. A pragmatic interpretation of why this occurred is due to the formality and inertia in the public sector. A more cynical view suggests that the politicians are slower to disrupt private sector supports.

What is clear from this research is that strategies that are designed to manage uncertainty in the development process are long-term. They take considerable commitment over successive development projects to engender and develop the trust required to operate this network effectively. To successfully manage certainty through public sector networks, experience and trust are essential rules of the game.

Next, attention is turned to how uncertainty, decision-making, and the information gained are processed internally and how the research findings addressed the following research question:

> *Under what conditions and to what degree is intuition is used by property developers as a decision-making heuristic in the property development process?*

9.2.3 When to trust your "gut"

The property development literature has drawn attention to the critical role of property developers. This point is highlighted in Chapter 2 and again in Chapter 3. Local urban landscapes would not continue to be shaped into new or regenerated forms unless developers were motivated to take the initial decision. This is the decision that starts the sequence of events in the development process. Chapter 2, Section 2.2.1 raised the question of how decision-makers internalise the external development market context. It is true that "most development is planned and managed primarily by developers and associated actors, rather than by public- sector planners" (Adams, Croudace and Tiesdell, 2012:2578). Though managing and organising are undoubtedly critical aspects of a

developers role, perhaps a defining one is what comes before that - the ability to spot opportunities (Adams & Tiesdell, 2013). Barkham's comment (2002: 53) that property developers rely on "judgement rather than analysis to bring about change" is an apt one.

Opportunity spotting is also a crucial skill of the classic entrepreneur and the property developer. Some have differentiated between different entrepreneurial decisions informed by intuitive processing (Shepherd et al., 2015). These include market entry, opportunity exploitation, and market exit decisions. Whereas entrepreneurial businesses are based on different products and markets, property developers focus on one. This research provides new evidence of how property developers use intuition to make longer-term strategic decisions such as spotting opportunities which often rests on accurately identifying market turning points. It finds that these decisions were often associated with heightened emotional states that find support in the literature to suggest that it is the emotional state that tips the balance in the decision to go forward (Lieberman, 2000; Baron, 2008).

The imperfect information on the broader property and development markets drives this process. For example, the data revealed that property developers intuitively made site purchase or sale decisions. Different types of information specific to place and time are drawn into an associative mental process that leads developers to arrive at their decision. For one residential developer, it is deep knowledge of the depth of market demand through local sales data; for another, it is the ability to recognise market exuberance through his observation at a commercial auction. These factors were processed associatively, and an emotional response ensued that was strong enough to be physically felt. This drove their decisions, in the former case to buy the site and start the development process and in the latter to sell all his assets and end it.

Chapter 3 drew attention to the behavioural economics literature and considers the 'humanness' (Henneberry and Rowley, 2008: 101) of decision-making. This highlights how short-cuts or heuristics are used to arrive at a quick decision. A significant body of work has been carried out on this and the resulting biases. Though this research focuses on biases and how people routinely make irrational decisions, it also provides powerful evidence that mental shortcuts are commonly used. This research's central concern is investigating the real-life decision-making process in property development and not the biases. In this way, it is linked to the way the decision is processed and not the substance of the decision. Nonetheless, it is difficult to ignore the potential dangers that result from emotionally charged overconfidence, this was highlighted in Section 3.3.3 and in the

aftermath of the GFC and widely acknowledged in an Irish context (Honohan et al., 2010; Regling and Watson, 2010; Lunn, 2013). Paradoxically, it appears that the overconfident emotional state of the decision maker drives both the beginning and the end of a development cycle.

Business and management research on entrepreneurial decision-making has identified that "bigger picture" skills are required for longer-term decision-making (Hodgkinson & Sadler-Smith, 2018: 475). The research presented here has identified intuitive decision-making and shown how longer-term strategic property development decisions are made. A spotlight is shone on the associative quality of how information is processed. Chapter 2, Section 2.2.1 drew attention to the "development concept" event in the development process. This is the long-term strategic decision that occurs at the beginning of the development process. At this point, the property developer assimilates various qualitative and quantitative information. Information about economic, political, social-cultural factors is considered. PD09 put it succinctly when he stated

> "they (developers) read the tea leaves through sales data then they are reading economic data, mortgages or economic signals which presage the occurrence of the recession or the expansion long before it is felt."

PD11 described the nature of the information as the "macro and micro" of it. To process the diversity of this information, an "informal and unstructured mode of reasoning" (Kahneman and Tversky, 1982) is required. Heuristics and rules of thumb appear simplistic, but the skill is choosing the suitable heuristic at the right time. (Gigerenzer, 2007)

The entrepreneurial, cognitive psychological and neuroscience literature outlined in Chapter 3 emphasises the importance of experience in decision-making. For example, recent new research into the role of emotions suggests that we are constantly predicting by recognising past experiences. Put simply, what we have experienced helps us to make sense of current external and internal information (Feldman Barrett, 2017). Research on entrepreneurial decisions that relies on cognitive psychology stresses experiential learning and recognition of prior patterns and chucking of information was how decisions were made (Agor, 2000; Hodgkinson and Sadler-Smith, 2018).

The analysis of the data in this research revealed that property developers used intuitive processes that were emotionally charged. These related mainly to decisions that were long-

term and generally associated with decisions that involved either buying sites or selling assets. Simple yet guiding mental short-cuts were discussed, such as “is it on Main and Main” (location), “people need somewhere to live” (sector) and “market always comes back” (timing) were relied upon to make decisions.

Specifically, these decisions required an ability to draw together a lot of different types of information to make a market cycle point decision. A key preoccupation was being able to estimate the market cycle accurately. This is not an easy task due to the poor quality and diversity of factors that affect property prices. Nonetheless, a strong belief that there is a market cycle and that its length is similar each time came through in most discussions. It is very revealing that property developers did not consider their role in creating the market cycle. They were feeding into a set of interrelated pricing mechanisms that ignited activity using capital resources. Some of the more experienced developers’ actions suggest that they understood that they were indeed involved in creating the marketplace and not separate from it. However, this abstract idea of the market is often invoked to explain less favourable substantive outcomes of their decisions; this was revealed in the comment by PD10 “the market cures everything”.

For most developers that sell their developments into the market, timing is the most important, so the most consistently used heuristic by property developers is that there is a cycle, which is accurate as long as they keep developing and contributing to the market cycle. So far in this discussion it is clear that not all developers behave similarly. The final research question examines this and addresses the last research question:

> *How can developers attitudes and behaviour be classified in the context of Adams and Tiesdell, 2010:199) “place-based and non-place-based” distinction?*

9.2.4 Place-based and non-place-based developer classification

Coiacetto (2001:47) initially drew attention to the fact that property developers are not an “undifferentiated homogeneous group” and called for further research into their motivations and behaviours. This idea, grounded in the old institutional theoretical perspective adopted, challenges the central assumption in neoclassical economic decision-making. Traditional sectoral classifications such as office developers or residential developers are fading in importance and provide limited use in understanding the fine-grained nature of how decisions are made.

The novel conceptual framework for this section of the research classified developers by building on the research carried out in the property development literature (Adams, Croudace and Tiesdell, 2012; Beauregard, 2005; Charney, 2007; Coiacetto, 2001) and blending it with a novice – experienced classification that is commonly used in behavioural economics research. Research responses were then categorised according to this to gain a deeper insight into how the attitudes and behaviour of these two types of developers can be compared and contrasted.

Chapter 5 revealed a detailed description of the Dublin development market over the decade. This is the first time this type of analysis has been carried out. The findings illustrated that local developers still contribute the most significant portion of development output in Dublin over the period (over 60%). It also revealed that private property development was funded by greater diversity of both domestic but mainly international sources during this development cycle. Before this, most funding for the development sector was sourced through the primary banking system, with devastating results. Now, the domestic banking sector's role in the development market is greatly diminished. Reduced reliance on the domestic banking system can be seen as a positive development as it insulates against another systemic market collapse. The findings revealed that the structure of the development market has also changed. During the decade, international developer-investors were responsible for a significant portion of development output in the market. Since this type of developer only began developing in Ireland since the GFC, they have quickly become significant place shapers in Dublin.

This does not tell the whole story. Local developers fund their developments through a mix of equity and debt. Chapter 6, explored the informal nature of these network relationships and how network members learned and connected to achieve their goals. Some developers fund their operations with loans, and during this period, they were mainly from international lenders. This was illustrated by comments from PD05 "There are about 50 foreign lenders in the market at the moment". The exposure to international funding sources is greater than the table above indicates. The other significant funding source for the development market is the public equity markets through public companies and REITs. This type of information goes so far in explaining "the range of players that are involved in the creation of an urban space" (Coiacetto, 2001). What follows is how this informs further analysis on the decision-making and strategies of these players.

Local private developers – "patience, deep pockets, good contacts."

The table below puts forward the findings of this research and develops the classification of the distinction between local private sector developers who participated in this study.

Table 9. 1 Local private sector developer attitudes

	Experienced Local Private	Novice Local Private
Public sector – rules and relationships		
Rules and influence	***More Likely To*** ○ have developed an understanding of the nuances and intricacies of specific rules and conventions; ○ engage in plan making; ○ representations to politicians regarding guidelines; ○ have greater success in planning decisions; ○ develop strategies that exploit planning rules and conventions; and ○ focus on place or sector	***Less Likely To*** ○ focus on exploiting rules and regulations ○ not consider plan making important to their business ○ not understand planning decisions ○ focus on place or sector
Relationships &Trust	○ rely on and develop long-term formal and professional relationships ○ appreciate the importance of trust and reciprocity	○ develop and rely on relationships
Private sector network		
Conventions and influence	***More likely to*** ○ have a well-developed network of equity partners that can be relied upon Often referred to as '30-year money' or 'family money.'	***More likely to*** ○ Have a greater reliance on debt
Relationships & Trust	○ develop long-term relationships ○ understand role of trust as being more important in raising capital	○ be well connected where trust in currency of information is important ○ put less emphasis on trust for for debt partners

Source: Chapters 6 and Chapter 7

A striking difference of attitudes and opinions was revealed from an analysis of the qualitative data in Chapters 6 and 7. Two developers, particularly PD03 and PD04, pursue

a longer-term placed-based strategy leveraging locational literacy (Charney, 2007). This research underscores the "practical distinction to be drawn between place-based and non-place-based entrepreneurs" (Adams and Tiesdell, 2010:199). It confirms and develops the distinction further. A crucial aspect of this distinction has to do with what these developers do with the buildings on completion. Local private developers are more likely to sell into the marketplace, whereas institutional developers are more likely to hold the property for rental income.

This research drives this further and provides evidence on developers' attitudes to funding their developments. This suggests that experienced place-based developers are more likely to rely on equity sources and less on debt. Interestingly neither of these developers were in NAMA following the GFC. This aspect of this type of developer is contrary to the popular opinion of property developers.

Novice developers in this category were more likely to be wholly reliant on building cash reserves to establish themselves, which chimes well with Adams (1994) views on how developers mature as they move through a spectrum of functions. This research reveals that they learn to hone their approach throughout their career by experiencing and watching the events unfold in the development market network. This point was brought into focus with comments revealed by a novice developer PD10 who suggested that the next time the market crashes he will change is approach and be more ambitious through the use of a sophisticated funding vehicle and increased levels of development land exposure.

Novice private sector local developers were more likely to pursue highly leveraged short-term speculative strategies. Though this research does not offer a 'new' approach to classification, it confirms existing categories in a Dublin context over the decade. It also adds a new dimension to this by considering experience necessary to the debate.

The novice–experienced classification is a particularly useful one. It is difficult to say how novices will develop even if they succeed during the current market cycle. However, there will always be novices at any time in a development market. Some of whom are very active in the market.

Institutional developers – "is it on Main and Main?"

During the interviews, discussions with institutional developers focused less on the intricacies of planning regulations and more on getting their developments through their internal committee approvals. Another striking difference from the data was that these

developers did not arrange the entire project. For instance, funding was provided internally, and planning was the responsibility of another department. Though there was a close connection between the functions, the responsibility did not lie with one person. Despite their seniority in the organisation, their focus was gaining approval from either a committee.

What is clear is that due to the way that local private developers have to arrange funding, they rely on their network to a much higher degree than institutional developers. In this way, local private, place-based developers are genuinely embedded in their local development networks. Non-place-based institutional developers are not. This research has proven this through the analysis of relationships. Institutional developers had very little to say about the planning or funding network.

9.3 Reflections on how this research was carried out

At the beginning of this research, it was clear that what was needed was a qualitative research strategy. The nature of the inquiry dictated this approach. Therefore, the first challenge was to identify who the property developers were. This proved difficult as the role lacks a commonly agreed definition. A significant strength of this research was using the CIS database as a tool to describe the development market. Other sources outlined in Chapter 4 available do not yet have the ability to provide a statistically accessible database of onsite developments over the 10-year period to 2020 that provides developer details. This proved to be a limitation of the research as it limited the possibility of cross checking the data collected.

Nonetheless, even with a list of developers gaining access and securing participation in the research proved challenging. This was discussed in Chapter 4 but is worth restating. Over a 3-month period, emails and follow up phone calls were carried out with little success. Mostly attempts at contacting developers were ignored, in a few instances contact was made with the decision maker but they declined to take part. The rationale for this was often the nature of the enquiry and the lack of trust in the research process.

This grounded the research in a data set that facilitated a more meaningful research output. Several researchers in this area have called for a greater understanding of the development market (Coiacetto, 2001; Adams, Croudace and Tiesdell, 2012). This enabled a description of the development sector in Dublin over the decade.

A significant challenge to this research was uncovering the motives and internal considerations that property developers experienced in pursuit of their development objectives. Whilst most developers were very happy to recount some aspects of their development projects, there were times when it was clear that they were not interested in exploring other more sensitive avenues. Added to this was keeping the interview focussed on the questions at hand. Often the discussion would veer away from the interview guide, the challenge was to keep the discussion going. In the end though, once a developer had agreed to participate in the research there was a willingness generally to participate in the discussion. The challenges presented by the onset of Covid-19 were evident in the extent of the primary interview data collected.

The approach to diversity in this research began with a desire to understand the extent to which the developers "are representative of an area's development industry in such terms as their scale of operations" (Coiacetto, 2001:47). This proved to be a challenge due to the complexity of the process and the poor level of information available. This was most evident in Chapter 5 when trying to capture the development supply for Dublin over the study period. A novel aspect of this research is creating and representing development market output for a city. Chapter 5 highlighted the quality of data available to ascertain supply levels in the years leading up to the study period. Up to this point, commercial property supply analysis was dependent on data provided by the central valuation agencies (Chapter 5, Section 5.4). The narrow focus limits analysis aside from the obvious questions around data independence. By examining only one sector, offices in this instance, it is possible to miss sectoral shifts in output that were evident during the latter years of the study period.

Chapter 4 detailed the way that the development market database was constructed. The database was designed according to the specifications of the research and the data provider Construction Information Services created the database. Over the ten years, 767 private sector developments went on-site in the four Dublin Local Authorities. This equated to a total development quantum of 6.1m sq.m. (66.4m sq.ft.). In accordance with planning regulations, only the property owner can apply for planning permission. This is a good point for connecting the property with a specific developer. Charney (2007) faced the same problem in his study of developers in Toronto. He highlighted the data limitations and his lengths to match the development with the developers. This research has identified a significant information source for research and analysis in the CIS database.

Despite this, identification of the developer requires some finessing. Matching each site with a developer can be obscured because some developers create a company that effectively owns the property, and the asset and the debt are all wrapped up in this. This was identified in the literature (Mohamed, 2006) and the qualitative data; PD01 outlined how it worked.

> "I have 14 different companies, one for each site I have on the go. Monies are all ring-fenced equity and debt on each site, and they are all different. Each one is stand alone. There is no cross guarantees no contamination totally separate individual assets".

Therefore, in some circumstances, the company name is put down as the owner, and in others, the actual developers' name is submitted. Several other avenues were considered for the design of this research. Initially, consideration was given to focus on a smaller area, such as one local authority or even a smaller locale. This was not pursued due to the specific risks of concentrating on a place and a few developers. In the end, a wider area was chosen to allow the broadest possible access and ensure the highest number of participants.

Despite the challenges posed by gaining access to the developer population, using the interview as a way of gathering data, ethical standards and providing anonymity and the not insignificant issue of the onset of Covid-19, one further reflection needs to be outlined. Some of these challenges were beyond the control of the researcher. With the benefit of hindsight, and considering what was within the researcher's control, the research output may have been improved with a narrower focus. The research aim could have been directed at a specific decision, for example site purchase or development concept or sector. Alternatively, once a developer had agreed to participate in the study, further exploration of the necessity of anonymity might have yielded a different outcome. These factors could be taken into consideration for any future explorations into developer decision-making.

9.4 Thesis Conclusions and Further Research

Reflecting on this research's theoretical approach, conceptual framework, and conclusions, one idea comes to mind. Real-life human behaviour is based on habit borne out of experience. This reinforces Hodgson's belief that *habit* is the critical component of behaviour (1998). Through this research, experienced developers use the habits they have formed over successive development cycles to make short-term decisions or longer-term strategies. Positive outcomes reinforce these habits. This was clearly illustrated when PD09 recounted the story from 1982 that reinforced his habit of relying on his intuition to decide when to sell out of the market. Though this story was quite some time ago, he told it like it had happened last week. The fact that the market did crash in the early 1980s was the positive reinforcement that led to him using that strategy repeatedly.

Throughout this research, a distinction has been made between the sociological and psychological aspects of this research. Despite this, these two disciplines weave together some of the same ideas. Habits describe both propensities to behave in a certain way or way of being and thinking. This suggested that some habits are latent and described them as "submerged repertoires of potential behaviour" (Hodgson, 2002:117). This acknowledges the psychological aspect of habits and behaviour. Simon considered that "Intuition and judgment—at least good judgment—are simply analyses frozen into habit and into the capacity for rapid response through recognition". (Simon, 1987:63) Here, the link is made with intuitive responses, quality judgements and experience. This, together with the research uncovered here, asserts that habits, positively reinforced through experience, are the basis of both short and long-term decision-making processes.

Intuition and emotional state of the decision maker, emerged as one of the strongest themes in the interview data collected in this research. Though in the analytical framework, the emotional state was only considered for specific decisions. An outcome of significant interest is the wider role that emotions play in the development process. Emotion is highlighted as an important component of markets in the cultural economy (Christie et al., 2008). The entrepreneurial literature also highlights the importance of the role that emotions play in social networking (Baron, 2008).

The role of numbers, calculations and performance metrics was explored in this research and evidence was uncovered that illustrated how these were used to influence and therefore obtain funding. This related to both lenders, and internal committees of larger institutional

players (Chapter 6). This is further evidence of the strength in the idea of rationality as being capable of absorbing uncertainty that exists in any prospect. (Miller, 2001; Smith, Munro and Christie, 2006). At the same time, the market cycle (Weber, 2016) was shown as cultural device that drove behaviour and decisions of property developers. By evoking this symbol as a way of legitimising decisions, the notion of a cycle ensures that future profits and potential market rewards are locked in. Developers were shown here to be aware of the significance of the cultural power of the market cycle in performing the development market.

This research has used the complementary theoretical perspectives of old institutionalism (Rutherford, 1995; Hodgson, 2007) and old behavioural economics (Simon, 1986) to draw together a conceptual framework that foregrounds the importance of socio-cultural processes, and the use of intuition, experience and habit as being key to navigate development market risks. The developer-orientated, qualitative data uncovered here acknowledges a variety of responses to uncertainty and risk. Despite this, most developers acknowledge that planning risk is one of the important risks to the success of their developments (De Magalhães et al., 2018). The findings put forward here advance the view that developers are often successful where they exhibit sophisticated social networking abilities that have the capacity to precipitate change in market conventions. In the Dublin post-GFC era, this was evident by the way property developers fundamentally altered the risk profile of the development market. This was achieved by building coalitions and funding partnership with international investors. David (2012) illustrated how this capacity to build partnerships can alter the risk profile of a development market in New Mexico, by devising ways of overcoming significant barriers to the sale of development land.

The lack of homogeneity in the developer population is a fundamental building block in this research. Throughout this study, the attitudes and opinions were classified into an array of developers that advances this idea, specifically focussing on the novice - experience styles of local place-based and non-place-based developers (Guy et al., 2002; Adams and Tiesdell, 2010). Brill (2022) drew attention to the variety of attitudes to risk in the wider private sector and focussed on the contrasting approaches taken by developers and institutional investors. She highlighted that urban governance focussed more on what was being built at the expense of who was building and how they were being governed. In her study she drew attention to the fact that developers were focussed on the detail of local

planning, whereas institutional investors, a significant force in determining the output of BTR developments in London were not.

This research confirms the view that the development process is a deeply social one where evidence was put forward that developers prioritised social connections and knowing the "right people" (Brill, 2018). This is aspect is a crucial aspect of private sector networks of relationships. The nature of the relationships within these networks has undergone some extensive examination, yet the boundaries between the different relationships lack distinction due to the way they change over time and through the experience of successive projects. (Henneberry and Paris, 2013).

This research found that relationships between the public sector planning departments and private sector developers were distant and existed in cultures that were seen to clash. Though this is not new, what was brought to light here was the role that central government had in deepening this rift. The literature highlighted that where shared ground and mutual benefits can be articulated, there was increased opportunity for positive outcomes. (Adams, Leishman and Watkins, 2012)

The importance of locally place-based entrepreneurial developers has been highlighted in the literature (Guy et al., 2002; Adams and Tiesdell, 2010). This is more important in light of the findings in the Chapter 5 of this research. It is becoming clear that institutional developers are continuing to gain prominence in the development market. This research revealed that over the 10 years 30% of total output was developed by 10 developers. Half of all floor area produced in Dublin over the period was developed by 29 developers. This research has found that of the place-based developers that were identified, they were mainly concerned with the quality of their local area and pursed through their involvement with local planners and local policies and by circumventing and bypassing nationally driven policies that they considered were not useful in their markets (Chapter 7). The evidence appears strong that advances of the institutional developers should be lessened so that smaller scale locally based developers can emerge.

Acknowledging the broad nature of the enquiry in this research these conclusions offer a springboard to further research. In taking the research field explored in this thesis further, a number of key areas for research have been identified.

1. Building on the evidence uncovered in this research, a more focussed examination of how emotion affects the social aspects of networking and property developer decision-making would prove useful. (Baron, 2008)
2. This research has uncovered that it is the positive emotional state of the decision maker that often drives a project forward and at the same time is responsible for over exuberance and overconfidence in markets. Further work in this area might interrogate the emotional aspects of property developer decision making where exuberance and overconfidence are evident (Busenitz, 1999)
3. Considering that legislative change has had a power effect on the capacity to build relations between public and private sector in Ireland, further work examining networks of relationship between different actors in the development market would prove useful. This study might use a project ecology approach to examine this (Grabher, 2001; Henneberry and Parris, 2013) This type of enquiry might focus on projects where a more collaborative, mutually beneficial approach is scrutinised.
4. This research uncovered how the network of relationships between international, domestic funders and local developers was developed through a "road show". A more focussed examination of other "network nodes" (Varna, Adams and Docherty, 2020) in an Irish context would prove very useful.
5. An examination of performance and intuition as a way of altering risk in an urban development context. This wold build on David's (2012) study and use a risk-lens to fully articulate the array of approaches to risk management different developers use to secure success for their development projects.
6. How specific property sectors can successfully drive a city's investment strategy. This would use the case of BTR and how it served to move the risk thermometer in the Dublin urban context from high to low risk which opened the doors to the wider international institutional community, (David, 2012)

Through the use of a new conceptual framework this research has confirmed evidence in existing studies (property development and entrepreneurial research) and found new evidence in the area of developer decision-making. The fast pace of change in both the development market and academic research means future research in this area will be ongoing with the passage of time. The importance of this is underscored by Fainstein's

view that “decisions of real estate developers... have become crucial elements in forming the future character of the urban economy” (1994:2) which still resonates.

List of Appendices

Appendix 1 Interview Guide.....248
Appendix 2 Participant Information Sheet.....250
Appendix 3 CIS Database Parameters 252
Appendix 4 Background to Planning and Development Legislation in Ireland 254

Appendix 1 Interview Guide

Introduction

The following guide was used to direct the semi-structured interviews with property developers for this research. Prior to each interview an agreement was reached that a specific site would be discussed. A desk-based study ensued prior to each development where, site details, planning application, development market information were collected.

Background / personal

1. Establish career and motivation to develop. Number of years, location of developments types of developments.
2. Responsibilities and role as developer.
3. General views on decision-making, dealing with uncertainty and quality of information available to decision makers.

Development concept to site purchase

Questions	Prompts
Why develop at that time?	Nature and source of information used, future expectations, past experience, feelings?
Site search, site selection?	Site finding? Sources, important relationships? Access to information? Is extant planning permission important?
What resources are necessary now?	What is important at this stage? Planning funding future expectations?
Resources?	How are they arranged? Internal or external to company? If external nature of the relationship? Is trust important? How long have you known them? Do you socialise? What information is important in discussions?
How to deal with crucial areas of uncertainty	Key areas of concern? Future market? Funding? Planning? Internal organisation?

Development commitment – Site purchase to disposal

Questions	Prompts
Why build at that time?	Nature and source of information used, future expectations, past experience, feelings?
Planning regulations?	What regulations were important? How do you use them? Is this the same each time? how do prevailing rules and conventions affect the decision? SHD, SDZ etc.
Role of relationship with public sector planners? An Board Pleanála?	What is important at this stage? Planning? Nature of the relationship? Is trust important? How long have you known them? Do you socialise?
Crucial areas of uncertainty	Key areas of concern? Future values? Funding? Planning? Internal organisation?

Development disposal

Questions	Prompts
Why sell/ rent now?	Nature and source of information used, future expectations, past experience, feelings?
Important information?	Sources of information, access to information?
	What is important at this stage? Planning? Nature of the relationship? Is trust important? How long have you known them? Do you socialise?
Crucial areas of uncertainty	Key areas of concern? Future values? Funding? Internal organisation?

Appendix 2 Participant Information Sheet

University of Glasgow

College of Social Sciences

Participant Information Sheet

PhD research – How property developers decide to develop in Dublin

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

This research will focus on property developers operating in the Dublin development market. Specifically, it will examine decision making within the development process. Within this, diversity in the developer population, information and uncertainty, valuation models and intuition and behaviour will be of primary concern. Participation in the research will involve one interview with the main decision maker. It should take no more than an hour.

The benefits of being part of this are that a substantial piece of research will be done on the development market in Dublin, you will have the ability to contribute to this research, and that further light is shed on the diversity of developers which should help to develop a more nuanced public discourse around the often, contentious debate. In addition, the research will add to a sparse but growing body of research that recognises the importance of developers' decisions on the urban environment.

Of course, there may be some negative outcomes of this research which is a risk to the industry but will not be specific to any individual developer. In addition, many positive outcomes could result from the research which may help to advance an often fraught and one-sided discussion regarding the development industry. It is not the intention of the research to damage the industry but rather to illustrate the nature of task and the context in which it is expected to operate. It is intended that all data gathered for the research will be kept confidential whereby names and places will be replaced by codes. These codes will be securely located by the researcher and not used in any way other than specified in this document. Confidentiality will be respected subject to legal constraints and professional guidelines.

All data collected at interviews will be transcribed and coded so that names and places are not recognisable. The key to these codes will be kept by the researcher. It is intended that the data

will be used as the primary source of information for the PhD thesis and academic articles and conference papers relating to this. The data will be stored electronically.

This research project has been given considered and approved by the College Research Ethics Committee.
If you have any concerns regarding the conduct of the research and researcher please contact the College Ethics Officer: College of Social Sciences Ethics Officer, **Dr Muir Houston, email: Muir.Houston@glasgow.ac.uk.**
Please contact the researcher directly for further information: Eimear Fallon, email: eimear.fallon@tudublin.ie
The researcher is a full-time lecturer in property investment and development at the Technological University of Dublin (formerly DIT) and a part-time PhD student at Glasgow University.

Appendix 3 CIS Database Parameters

The following outlines the specific details of every development (where the cost of the project was greater than €1,000,000) in Dublin over the decade to 2020. In total 767 projects were identified (6.16 m sq.m)

CIS | CONSTRUCTION INFORMATION SERVICES

Project ID (Unique Identifier)
Title
Project
Authority
Planning Ref
Application date
Decision date
Address
County
Easting
Northing
Contract stage
Plan stage
Start date
Finish date
Duration (months)
Construction type
Funding
Sector
Category
Value
Planning URL
Site area
Floor area
Structures
Storeys
Residential Units
Total houses
Total apartments

Hotel bedrooms
Nursing bedspaces
Student bedspaces
Bicycle spaces
Car parking
Covered parking
Surface parking
Demolition?
Main Contractor details
Promoter / owner/ developer details

Appendix 4 Background to Planning and Development Legislation in Ireland

The following is designed to give additional detail to the planning and development legislation in Ireland.

Principal planning and development legislation in Ireland up to 2010

Legislation and	Key features and implications
The Planning and Development Act 2000 (The 2000 Act)	Set out the main legislation for planning framework in Ireland and introduce the hierarchy of plans. This Act integrated housing provision into the housing system in Part V[54] of the Act which required developers to use part of their land for social and affordable housing
2006 Planning and Development (Amendment) Act (The 2006 Act)	Expanded the role of An Bord Pleanála. Strategic infrastructure planning applications are now made directly to the Board.
2010 Planning and Development (Amendment) Act (The 2010 Act)	Strengthened links between the hierarchy of plans. The focus of this legislation was to avoid over zoning lands in appropriate areas.

Source: summarised from Grist, 2012b, 2012a

The 2000 Act consolidated previous Acts and remains one of the primary pieces of planning legislation in Ireland. Besides consolidating previous Acts, significant changes were also introduced. As a result, there was a shift in power from the county level to a more coordinated plan-led approach (Grist, 2012b).

Development Plans

The development plan is the second tier in the national hierarchy of plans. It is the basic policy document of each local authority. It is "intended to provide the strategic framework and policy context for all local planning decisions". (Department of Environment, 2007:7).

[54] Part V of the 200 Act was subsequently amended by the Planning and Development 2002 Act. The details of this are not part of this research.

The power is with local elected members of the council to adopt the development plan. The function of the development plan is to structure land-use policies at the city or country level. This in turn provides a basis for day-to-day planning decisions. Each planning authority is obliged to make a new plan every 6 years, 4 years after the adoption of the new plan the review for the next plan must take place.

Development plans include two types of objectives. These are either mandatory or discretionary. Grist, (2012a: 13, 14) describes the 19 mandatory objectives that exist. They cover a range of diverse objectives. These include:

- land-use zoning

- integration of planning with social, community, and cultural objectives and

- protection of the linguistic and cultural heritage of Gaeltacht areas. Not all 19 relate to all local authorities, but the scope is very wide.

More relevant, for developers are the development control objectives. A significant measure used to control development is commonly known as the plot ratio also known as floor area ratio. This is a metric used to control a property development's mass.

Every development plan indicates specific indicative plot ratios. This means that there is always scope for more or less than the indicative levels given in each plan. In addition, indicative plot ratios are set at the beginning of the development plan which covers six years. They are different for each different zoning type and are a considerable area of uncertainty when considering mass on a proposed development. As an example, the Dublin City Development Plan (2016- 2022) outlines the basis for the approval of higher plot ratios. A subjective interpretation of these rules is required which opens up the possibility of developer influence and negotiations, however, this can only occur once the site has been purchase. Higher plot ratios can be granted when the following applies to a proposed development.

"Adjoining major public transport termini and corridors, where an appropriate mix of residential and commercial uses is proposed -

- To facilitate comprehensive redevelopment in areas in need of urban renewal
- To maintain existing streetscape profiles
- Where a site already has the benefit of a higher plot ratio

- To facilitate the strategic role of institutions such as hospitals”

(Dublin City Development Plan 2016 – 2022: 316)

Plot ratios normally refer to commercial developments. For residential development, the measure is units per hectare. There is a different measure for residential housing units. This is less controversial and for Dublin City, the measure is 50 units per hectare. (Dublin City Development Plan 2016 – 2022: 315). The variation in these measures highlights both a complexity and a degree of uncertainty in the framework of regulations.

The 2000 Act introduced the Local Area Plan (LAP). This is designed to act as a micro-plan for an area. It sets out objectives in greater detail and is put in place if a significant change is anticipated. LAPs enable local consultation with the public and are subject to approval by local elected members. Local authorities have complete freedom to set a plan period. This can extend beyond the life of the development plan. Objectives must always remain consistent with the development plan. (Cave and Semple, 2018)

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