

# **How and why do large private developers engage in green building practice? The case of Bangkok, Thailand**

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I, Alizara Juangbhanich, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.



## Foreword

Chamberlain (1972):

*Development companies differ from one another, not just in size or scope, but in their norms or constraints, their decision making procedures, and their whole 'corporate personality' (Chamberlain, 1972 cited in Rudin 1978, p.26; and Coiacetto, 2001, p.47).*

Conforming to what Simon Chamberlain stated almost 50 years ago, this research moves away from the financial and technological arguments behind engagement in green building practice that is commonly visited. It explores the psychological dimensions to property development and the behaviour of developers. This is based on the notion that property developers are organisations, and organisations are made up of people; in this regard, it stands to reason that there are other psychological constructs operating at the organisational and individual levels of organisations. These psychological constructs, I will later argue, influence the way developers *perceive* their contextual environment which in turn shapes their response to development.

In this research, I study the behaviour of 44 publicly listed property developers in Bangkok, Thailand and their responses to green building as a form of sustainable practice. Bangkok's property market has always been dominated and led by large private developer organisations. Green buildings remain an emergent market and there are slightly over 100 buildings that are green building-certified out of the 10s of 1000s. Sustainable urban development is – as it is for most developing nations – an imperative agenda. Yet, there is limited engagement from both private and public sectors.

Under the assumption that property developers are organisations, this research construes and sets out to explore the behaviour of developers as organisational behaviour. The proposed theoretical framework presented thus draws on organisation theory and organisational behaviour theory in parallel to the limited studies on developer behaviour and the existing models of property development. It narrows down later in its empirical chapters to explore eight psychological areas of investigation pertaining largely to organisational culture (e.g. corporate philosophy, corporate responsibility) and managerial constructs (e.g. individual priorities, environmental commitment, and outlook). It essentially argues that our current ways of understanding developer 'behaviour' is the same as how we understand 'market behaviour'. What this research brings forward is the understanding of the *softer* dimensions to developer behaviour; this is precisely what the theoretical underpinnings and empirical findings from this research seek to contribute.

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## Abstract

Sustainable building design and construction are increasingly adopted as a means to alleviate growing environmental concerns with particular emphasis on green building practice. However, despite the growing awareness, integration of green building practice in developing cities such as those in Southeast Asia remains slow. Barriers to green building practice tend to be conceived as pragmatic in nature; cost premiums, lack of expertise, technology, government incentives, and market demands have been identified as key constraints.

While these factors may be significantly relevant through the lens of neoclassical economics, this study suggests that solely addressing pragmatic concerns may be a limited approach to understanding developer behaviour and an oversimplification of the factors involved therein. Developers are organisations; entities composed of groups and individuals with unique characteristics, values, and belief systems. Thus, it stands to reason that there may be other organisational and psychological constructs involved in shaping behaviour and organisational decisions.

The aim of this research is twofold. First, it seeks to readdress the understanding of factors and mechanisms behind property developer behaviour and decisions to adopt green building practice; whereby a theoretical framework that draws on organisational behaviour theory is proposed. Second, with regard to the proposed framework and looking into the case study of Bangkok, Thailand where private developers are dominant, it investigates ‘how’ and ‘why’ large private developers engage in green building practice focusing on the softer psychological factors rooted in organisational culture and individual perceptions of top managers.

Through a qualitative approach, the study explores the behaviour of 44 publicly listed property developers operating in Bangkok and their responses to green building practice through document analysis and semi-structured interviews. Findings show that green building practice in Bangkok is implemented through a top-down approach with significant drive from top managers. Notions of *responsibility*, *leadership*, and *experience* are discussed as psychological and organisational constructs that distinguish developers with green buildings from those without. The study concludes with implications for future research and policy, including reflections on the privatisation of property developers and the need to address sustainability through formal and informal institutions.

## Impact Statement

This research contributes to the ongoing wider discussions in academia and in practice on planning for sustainable development. It recognises the importance of creating a more sustainable built environment, but more importantly, a need to explore the means to which our current modes of operation can be transformed. It questions particularly the role of human agency in combating climate change, and even more so, the responsibility of private firms (in this case large private property developer firms) in engaging in such a change.

In its empirical chapters, this research studies the behaviour of Thailand's largest property developer firms, and their position and uptake of green building in Bangkok – Thailand's capital city and only metropolis. As an academic exercise, it offers insights on green building and sustainable business practices in developing Asia where literature and empirical evidence from this region have been fairly limited. It proposes an alternative framework through the use of organisational behaviour and theory to understand *developer behaviour*, thereby enabling discussions of the 'softer' constructs behind sustainable property development. As a case study, it offers real-world implications for a developing city where most of its public, industry, and political economy view environmental protection as secondary to economic growth.

The UN projects that by 2050, 68% of the world population will be living in urban areas; 90% of this increase is said to take place in Asia and Africa. It is thus important for research and policy to question conventional modes of practice and explore alternative measures for urbanisation to be ecologically sustainable. **Chapter Nine** contributes to some of this discourse by drawing on the empirical findings to discuss notions of responsibility, leadership, and experience in top managers and of private developer firms. **Chapter Ten** furthers these discussions into implications for planning regulation, corporate policy, and the role of higher education in delivering sustainable development.

To this end, the impact from this research would stem largely from the dissemination of its work to scholarly journals, research and industry conferences, and public engagement to reflect on and consider some of the above implications. It offers content to build rapport between academics, practitioners, and policy-makers in the fields of planning, construction, business, and education; and intends to contribute, from the social sciences to furthering theory and practice in sustainable planning and development.

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# Contents

<b>Foreword</b> .....	3
<b>Abstract</b> .....	5
<b>Impact Statement</b> .....	6
<b>List of Figures</b> .....	11
<b>List of Tables</b> .....	12
<b>Abbreviations</b> .....	13
<b>Chapter One</b> .....	15
<b>Private Developers and Green Building Practice</b> .....	15
Introduction .....	15
Private developers and urbanisation in developing Asia .....	19
‘Sustainability’ in private property development .....	21
Scope and definition of ‘green building’ .....	25
Existing research on green building .....	28
Introducing an organisational behaviour approach.....	31
Structure of this thesis .....	33
<b>Chapter Two</b> .....	37
<b>Conceptualising Developer Behaviour</b> .....	37
<b>PART I. Private Developers and the Capitalist Economy</b> .....	38
PROPERTY DEVELOPMENT AS ECONOMIC ACTIVITY .....	40
LAND, LABOUR, AND CAPITAL .....	44
PROPERTY DEVELOPERS AS AGENTS IN URBANISATION .....	49
REFLECTIONS FROM BANGKOK’S 1997 REAL ESTATE CRISIS .....	52
Discussion .....	58
<b>PART II. Developer Behaviour as Organisational Behaviour</b> .....	60
<b>Organisation Theory</b> .....	62
OPEN SYSTEMS THEORY.....	63
ORGANISATIONAL ENVIRONMENTS .....	65
ENACTMENT THEORY .....	68
<b>Organisational Behaviour</b> .....	70
PERCEPTION .....	70
LEADERS AND LEADERSHIP .....	72
ORGANISATIONAL CULTURE .....	75
NORMS AND PSYCHOLOGICAL CONTRACTS .....	78
<b>Corporate Sustainability</b> .....	80
CORPORATE SOCIAL RESPONSIBILITY .....	80
CORPORATE ENVIRONMENTALISM.....	83
Discussion .....	85



<b>Chapter Three</b> .....	89
<b>Framing Developer Behaviour and Responses to Green Building</b> .....	89
THE FRAMEWORK .....	89
INDIVIDUAL CONSTRUCTS, ORGANISATIONAL CULTURE, AND ENVIRONMENTAL PRACTICE .....	92
EIGHT PSYCHOLOGICAL AREAS OF INVESTIGATION .....	96
Discussion .....	103
<b>Chapter Four</b> .....	105
<b>Investigating Developer Behaviour</b> .....	105
RESEARCH DESIGN .....	105
Scoping study .....	112
Phase I: Document Analysis .....	114
Phase II: Respondent Interviews.....	115
Data Analysis.....	116
SAMPLE AND RESPONSE.....	118
ETHICS .....	128
RESEARCHER POSITIONALITY .....	131
LIMITATIONS .....	134
<b>Chapter Five</b> .....	137
<b>The Case of Bangkok, Thailand</b> .....	137
BANGKOK: ‘CITY OF ANGELS’ .....	137
TRENDS IN PRIVATE PROPERTY DEVELOPMENT.....	142
LARGE PRIVATE DEVELOPERS AND THE OLIGOPOLY .....	146
LAND, STAKEHOLDERS, AND FINANCING OF DEVELOPMENT ACTIVITY ....	152
GREEN BUILDINGS IN BANGKOK .....	164
Discussion .....	170
<b>Chapter Six</b> .....	173
<b>SET-Listed Developers and Green Building Engagement</b> .....	173
LEVELS OF ENGAGEMENT .....	173
ORGANISATIONAL PROFILE .....	177
Financial status .....	177
Size .....	180
Age .....	181
Number and location of projects.....	182
APPROACH TO DESIGN AND CERTIFICATION .....	183
THE ROLE OF TOP MANAGERS.....	185
Discussion.....	188

<b>Chapter Seven</b> .....	191
<b>Findings on Organisational Constructs</b> .....	191
1. Corporate Mission and Philosophy (CMP) .....	191
2. Corporate Environmental Responsibility (CER).....	199
3. Internal Environmental Awareness (IEA).....	206
4. Corporate Risk-Orientation (CRO).....	208
Discussion .....	211
<b>Chapter Eight</b> .....	217
Findings on Individual Constructs .....	217
5. Managerial Objective (MO).....	217
6. Managerial Environmental Commitment (MEC).....	222
7. Managerial Environmental Outlook (MEO) .....	229
8. Perception of Green Building Practice (PGBP) .....	233
Discussion .....	240
<b>Chapter Nine</b> .....	245
<b>Responsibility, Leadership, and Experience</b> .....	245
RESPONSIBILITY .....	246
LEADERSHIP.....	258
EXPERIENCE.....	266
Discussion .....	274
<b>Chapter Ten</b> .....	279
<b>Conclusion</b> .....	279
HOW AND WHY DO DEVELOPERS ENGAGE IN GREEN BUILDING PRACTICE?.....	281
IMPLICATIONS FOR POLICY AND FUTURE RESEARCH .....	293
Sustainability and green building as an institutional agenda: a role for policy .....	294
Re-institutionalising property development .....	296
Implications of privatisation: a role for regulation .....	298
IN CONCLUSION .....	300
<b>Afterword</b> .....	303
<b>References</b> .....	305
Appendix 1: Scoping study – Profile of 44 SET-listed developers .....	331
Appendix 2: Document analysis guide.....	332
Appendix 3: Interview protocols.....	334
Appendix 4: Interview protocols (revised and translated) .....	336
Appendix 5: Interview topics .....	339

Appendix 6: Interview recruitment letter .....	340
Appendix 7: Information sheet.....	341
Appendix 8: Interview consent form.....	343
Appendix 9: List of interviewees .....	344
Appendix 10: Approved UCL Ethics application .....	345
Appendix 11: Green building projects by Bangkok’s SET-listed developers.....	346
Appendix 12: Green building measures – 44 SET-listed developers.....	351
Appendix 13: Overview of CMP codes .....	353
Appendix 14: Overview of CER codes .....	354
Appendix 15: CSR activity – 44 SET-listed developers .....	357
Appendix 16: Overview of IEA codes .....	359
Appendix 17: Overview of CRO codes.....	360
Appendix 18: Overview of MO codes .....	362
Appendix 19: Overview of MEC & MEO codes .....	363
Appendix 20: Overview of PGBP codes.....	364
Appendix 21: Sample of top management background discipline (SET-listed developers).....	365
Appendix 22: Property laws in 17 countries .....	366

## List of Figures

<b>Figure 1</b> The three pillars of sustainability.....	23
<b>Figure 2</b> The organisation in its environment.....	64
<b>Figure 3</b> Environmental influences in the construction process.....	66
<b>Figure 4</b> Strategic choice under conditions of bounded rationality.....	74
<b>Figure 5</b> Lily pond metaphor: the three levels of culture .....	76
<b>Figure 6</b> Types of contracts.....	78
<b>Figure 7</b> Proposed theoretical framework for understanding developer behaviour.....	91
<b>Figure 8</b> Proposed eight psychological AoIs in relation to the theoretical framework .....	99
<b>Figure 9</b> Proposed research design.....	112
<b>Figure 10</b> The coding process in inductive analysis.....	117
<b>Figure 11</b> Map showing location of Bangkok .....	138
<b>Figure 12</b> Bangkok’s urban growth 1850 - 2015.....	141
<b>Figure 13</b> Aerial view of Bangkok’s roads and building infrastructures.....	141
<b>Figure 14</b> Building construction activity in Bangkok by sector in 2012.....	142
<b>Figure 15</b> Map of districts in Bangkok.....	143
<b>Figure 16</b> Bangkok’s high-rise condominiums .....	145
<b>Figure 17</b> ICON SIAM – Mixed-use shopping complex .....	145
<b>Figure 18</b> Examples of condominium projects in Bangkok by SET-listed developers 2018-2021 .....	151

<b>Figure 19</b> LEED certifications of Park Ventures Ecoplex. Sathorn Square, FYI Centre .....	167
<b>Figure 20</b> Singha Complex, Pearl Bangkok .....	168
<b>Figure 21</b> Unilever House, G Tower Grand Rama 9 .....	169
<b>Figure 22</b> 98 Wireless.....	170
<b>Figure 23</b> Certifiers, Advocates, and Non-certifiers by industry sector .....	176
<b>Figure 24</b> Bangkok SET-developers – Total revenue.....	178
<b>Figure 25</b> Bangkok SET-developers – Net profit.....	179
<b>Figure 26</b> Bangkok SET-developers – Organisational size.....	180
<b>Figure 27</b> Bangkok SET-developers – Organisational age (as of 2016) .....	181
<b>Figure 28</b> Bangkok SET-developers – Number and locations of projects .....	182
<b>Figure 29</b> Green building measures implemented by SET-developers in this research .....	185
<b>Figure 30</b> Bangkok SET-developers – Coding of CMP statements .....	193
<b>Figure 31</b> Park Ventures Ecoplex by Univentures .....	197
<b>Figure 32</b> CSR activities by SET-listed developers .....	203
<b>Figure 33</b> Materiality matrix – PACE Development Corporation.....	205
<b>Figure 34</b> The Esse by Singha Estate .....	220
<b>Figure 35</b> Nimit Langsuan by PACE Development Corporation.....	220
<b>Figure 36</b> Laddarom Elegance by Quality House .....	221
<b>Figure 37</b> Villaggio by Land and Houses.....	221
<b>Figure 38</b> Terraria model housing by AP (Thailand) .....	225
<b>Figure 39</b> Tropicana ‘Eco Green Condo @ BTS Erawan’ by Origin Development .....	226
<b>Figure 40</b> Energy Complex (EnCo) by PTT.....	233
<b>Figure 41</b> Bangkok listed developers – BoDs profile.....	270
<b>Figure 42</b> Bangkok developers’ perception of factors in green building .....	285
<b>Figure 43</b> Developers’ perception of psychological factors in decision-making .....	291

## List of Tables

<b>Table 1</b> Proposed eight psychological AoIs in relation to their psychological domains. ....	98
<b>Table 2</b> Recommended sample sizes in qualitative research.....	121
<b>Table 3</b> List of Bangkok’s SET-listed developers in 2015.....	150
<b>Table 4</b> No. of Certifiers, Advocates, and Non-certifiers .....	176
<b>Table 5</b> Green building measures implemented by SET-developers in this research.....	184
<b>Table 6</b> Ecocentric and anthropocentric sustainability paradigms .....	264

## Abbreviations

AoI	Area of Investigation
ASEAN	The Association of Southeast Asian Nations
BAS	Building Automation System
BEC	Building Energy Code
BMA	Bangkok Metropolitan Administration
BoDs	Board of Directors
BRE	Building Research Establishment
BREEAM	Building Research Establishment Environmental Assessment Method
CBD	Central Business District
CE	Corporate Environmentalism
CEO	Chief Executive Officer
CER	Corporate Environmental Responsibility
CMP	Corporate Mission and Philosophy
CRO	Corporate Risk-Oriented
CSR	Corporate Social Responsibility
DGNB	Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council)
EIA	Environmental Impact Assessment
F.A.R.	Floor Area Ratio
GBP	The British Pound Sterling
GDP	Gross Domestic Product
HVAC	Heat, Ventilation & Air Conditioning
IAQ	Indoor Air Quality
IEA	Internal Environmental Awareness
LED	Light-Emitting Diode
LEED	Leadership in Energy and Environmental Design
MEC	Management Environmental Commitment
MEO	Management Environmental Outlook
MEPS	Mechanical, Electrical and Plumbing Systems
MO	Management Objective
NSO	National Statistical Office of Thailand
O.S.R.	Open Space Ratio
PGBP	Perception of Green Building Practice
PR	Public Relations
REIT	Real Estate Investment Trust

SEA	Southeast Asia (or Southeast Asian)
SET	Stock Exchange of Thailand
TGBI	Thai Green Building Institute
THB	Thai Baht
TREES	Thai's Rating of Energy and Environmental Sustainability
UN	United Nations
UCL	University College of London
USGBC	U.S. Green Building Council
WCED	World Commission on Environment and Development

# **Chapter One**

## **Private Developers and Green Building Practice**

### **Introduction**

In 1987 the United Nations World Commission on Environment and Development (WCED) delivered a seminal report on the need for sustainable development. Sustainable development was defined as

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987).

The report garnered much recognition and commitment to sustainable development as a means of tackling climate change and increased environmental issues. Efforts were made to alleviate growing environmental concerns which helped transform how industries operate. Development sectors such as architecture, engineering, and construction began to seek ways of improving their environmental practices (Korkmaz et al., 2009). ‘Green building’ was said to emerge as part of this process. Green building practice can be traced back to the end of the 20<sup>th</sup> century as a guideline for the delivery of sustainable buildings (Hoffman and Henn, 2008; Korkmaz et al., 2009).

Buildings consume up to 30% of total global energy use and are responsible for 20% energy-related greenhouse gas emissions (IPCC, 2014). The design and construction of green buildings directly address these environmental concerns. The World Green Building Council released a statement that explains how green buildings ‘provide some of the most effective means to achieving a range of global goals’, combating climate change as well as creating sustainable and thriving communities (World Green Building Council, 2019). Energy-efficient buildings reduce energy consumption by up to 50% (Robichaud and Anantamula, 2011). Designs that incorporate

daylighting and use sustainable building materials are said to enhance health, well-being, and productivity (Chan et al., 2009).

While these facts provide a strong rationale to implement green building practices, it has not been equally adopted globally. There are extensive discussions around the economic feasibility and business benefits of green buildings and how market factors are driving the industry to construct green buildings. In 2013, the World Green Building Council released a report titled *The Business Case for Green Building* that argued for the cost-efficient role of green buildings and how they add economic value to projects. The report, in its own words, states how ‘sustainable buildings make clear business sense’ and that ‘it’s not just about saving the planet’ (World Green Building Council, 2013, p.10). Discourses in green building practice have shifted from a response to climate change to one that is now consumed by the characteristics of the enterprise culture where feasibility and viability of green buildings are now seen as the most important triggers (ibid); and profitability, a main concern (Addae-Dapaah et al., 2009).

Literature on property development and sustainable building practice is limited in this regard. Further review of the wider literature on green buildings show that barriers and drivers for green buildings are often conceived in relation to cost-benefit dimensions and pragmatic functions. The adoption of green building practice remains slow across most of Asia, with the exception of countries such as Singapore, Hong Kong, and China. The region is seen to be ‘slow to catch on’ with the green building movement (Hill, 2017), with progress in countries such as Thailand only taking off in particular types of buildings (Srimalee, 2015; Gulbrandson, 2016; Toomgum, 2018). Market research has identified the reason for the slow uptake of green buildings in Asia as a lack of insight into the business case (see BCI Asia, 2014; Hill, 2017). There is emergent, yet limited, research on socio-psychological aspects of green building (see e.g. Hoffman and Henn, 2008). While a cost-benefit analysis of green buildings may be significantly relevant through the lens of neoclassical economics, this research suggests that solely addressing the lack of green building uptake in this light may be a limited approach and an oversimplification of the factors involved.



The objective put out by this research is to investigate private developers' behaviour and their outlook on green building practices as means to explore implications for future sustainability. While this research aims to study developers' response to green building, it acknowledges that green building is not the only option in the delivery of sustainable properties. The main focus of this research is to provoke a critical discussion about sustainability in the private property industry through green building practice as an example. Discussion and analysis that take place in the later chapters will extend beyond addressing motivations to pursue green building as an economic function. My argument behind this research is that there are other influences which affect developers' decision-making that needs to be recognised. These transpire through the decision-makers' own characteristics, the culture of their firm, as well as the norms and institutions that surround them in their local industry and the wider society.

Property developers are essentially *organisations*; entities composed of groups and individuals with unique characteristics, values, and belief systems. Decisions to construct green buildings and/or sustainable practice are undertaken by individuals within organisations that are inherently influenced by their contextual environment. Under these assumptions, it stands to reason that there are other psychological and organisational constructs involved in shaping these decisions. Developers' response to green building, through this understanding, is far more complex than the amalgamation of pragmatic factors; it is one that collectively consists of psychological and organisational factors that lie beyond issues of practicality.

This is exactly where this research seeks to contribute. The aim of this research is twofold: first, it seeks to readdress the understanding of factors and mechanisms behind property developer behaviour and their decisions to adopt green building practice. Second, it homes in to investigate the softer psychological and organisational constructs behind developer behaviour, utilising an organisational behaviour approach to explore these 'softer' constructs. The latter chapters discuss developers' response to green building in light of organisational culture, individual perception of

top managers, and the wider norms and institutions in society. To this end, this research is undertaken in response to the three main questions:

- *What are the key factors involved in shaping private developers' responses to engage in green building practice?*
- *To what extent do organisational and psychological constructs impinge on efforts and responses of green building practice?*
- *How do these factors relate and interact to affect responses to green building practice?*

Bangkok, Thailand, was selected for case study analysis in this research; a city where large private developers are responsible for extensive amounts of new builds. By gaining insights from Bangkok's largest private developers, the research hopes that its empirical findings will contribute to the understanding of green building in similar contexts where private developers are dominant and environmental efforts are limited. It is also the intention of this research that green building serves only as one of the more discernible and tangible mediums to understand and assess the implications for private developers' engagement with sustainable practice.

In order to provide further context to the work undertaken in this research, the position of the author is to be addressed. First, being a doctoral thesis written for the fulfilment of a PhD in Planning Studies at the Bartlett School of Planning, the contribution that this work seeks to offer is primarily grounded in the realm of planning and sustainable urbanism (as opposed to real estate and economics). This is to justify the extensive focus in discussing the behaviour of developers from a socio-psychological perspective and less so as an economic function. Second, having been trained as an architect with a second degree in planning, I acknowledge that some of the discussion and analyses in this thesis may have emerged from a different set of assumptions than those widely understood within the field of real estate and economics. This perspective, while external, has enabled suggestions outside the boundaries of current real estate discourse. I contend that these views may further help to advance more radical propositions and alternatives for sustainable urbanisation in the future.

The rest of this chapter sets the scene for the research and outlines the structure of this thesis. The next section outlines the context behind private property development and urbanisation in development Asia, and the scope for studying 'sustainability' under this context. The latter half of the chapter defines the boundaries of green building practice used in this research and introduces an organisational behaviour framework to study developer behaviour. The chapter ends with an outline of the overall structure of this thesis.

### **Private developers and urbanisation in developing Asia**

An extensive amount of empirical research in developing regions has highlighted the role of private property developers as main actors in the urbanisation process in places such as India, Indonesia, the Philippines, and Thailand (see, e.g., Tuan Seik, 1992; Goldblum and Wong, 2000; Mukhija, 2004; Shatkin, 2008). Most of these activities are encouraged by the local government and supported through subsidies, market deregulation, and other forms of public-private partnership models. To depict what this entails, the following excerpt is borrowed from Shatkin (2008) where the dominant role of large private developers and how they have defined and shaped Manila's urban environment is explained.

In Metro Manila...one defining characteristic of contemporary urban development is the unprecedented privatization of urban and regional planning. A handful of large property developers have assumed new planning powers and have developed visions for metroscale development in the wake of the retreat of government from city building and the consequent deterioration of the urban environment.

...This form of urban development reflects the imperative of the private sector to seek opportunities for profit by cutting through the congested and decaying spaces of the 'public city' to allow for the freer flow of people and capital, and to implant spaces for new forms of production and consumption into the urban fabric (p.384).

Shatkin refers to this mode of urban development as the 'privatization of planning' (ibid). The role that private developers undertake in Asia is no longer limited in scale to that of a building or a block; private developers are 'granted considerable power to reengineer cities' (Shatkin, 2008,

p.388). Their vision often focuses on the development of large-scale projects with the intention of capitalising on city-regional trends to strategically shape the development to their advantage. Evidencing this claim is the growing number of large-scale developments in places such as Bangkok, Jakarta, Hanoi, Shanghai, Kolkata, and Mumbai that are built on a for-profit basis, often by a single developer (Shatkin, 2011). These developments, Shatkin argues, 'represent a vision for the transformation of the urban experience through the wholesale commodification of the urban fabric' (p.77).

The same can be said for Bangkok where the city's urban development is shaped by private actors that influence the 'direction and patterns of urban growth and land use' (Manotham, 2010, p.25; see also Browder et al., 1995). In 2013, it was reported that ten of the largest developers in Bangkok alone accounted for up to 45% of the local property market share (Srimalee, 2013). In 2018, a similar trend remains where the city's biggest developers have more than 70% of market share by units and value (N. Pornchokchai, 2018). The impact and scale of these private developers may rapidly lead to significant environmental degradation of the city. New developments constructed by Bangkok's largest developers mostly take the form of high-rise condominiums in the city centre (see urbanalyse, 2012; Srimalee, 2013; CBRE, 2017a; CBRE, 2017b) and gated communities in the periphery (Klinmalai, 2014). Most of these residences are branded as luxury residences and built to attract the middle to upper class as well as foreign expats. Very few new builds have targeted the lower-income community or had an environmental impetus.

The rationale behind the influential role of the private sector on patterns of urbanisation in developing Asian cities has been debated by many. Some contend that private-led urbanisation in the region has emerged as a result of globalisation and urban convergence in the global era (see Dick and Rimmer, 1998) while others have posited that it is the particularities of the geographical region and place-specific forces that have shaped the interaction with local actors, influences, and processes (see McGee, 1991 as cited in Shatkin, 2008). It is not the place nor intention of this thesis to offer a consensus on this matter, but to highlight and call to attention the prominent role that

private developers hold in the region and why it is important to understand the nature of these developers and their responses to socially and environmentally responsible practice.

### **‘Sustainability’ in private property development**

The premise of this thesis is to explore the sustainability implications posed by private property development looking specifically at developing Asia where the private sector exerts high levels of market dominance. In order to do so, it is important to first address the contested nature of the term ‘sustainability’. There are different possibilities to what one may construe as being ‘sustainable’ depending on how it is viewed and interpreted. The term has been criticised for its vagueness and ‘fuzziness’ (Phillis and Andriantiatsaholiniaina, 2001), barring appropriate response due to its ill-defined meaning (see Connelly, 2007). What makes this more complex to discuss in the context of private property development is also the contested views on how sustainability can be achieved under a capitalist economy (see also Mawhinney, 2002).

For this thesis to address and discuss sustainability in private property development, it is thus necessary to clarify what ‘sustainability’ means and more importantly, *who or what* is actually being sustained. To ‘sustain’ is defined as ‘to keep a person, community etc. from failing or giving way; to keep in being, to maintain at the proper level; to support life in; to support life, nature etc. with needs’ (Brown et al., 1987, p.714). It is further noted that the etymology of the term originated from the French verb *soutenir*, ‘to hold up or support’ (ibid).

In the environmental context, ‘sustainability’ can be considered as ‘the quality of causing little or no damage to the environment and therefore able to continue for a long time’ (Cambridge Dictionary, 2020). The term has strong implications for environmental conservation and resource management (Brown et al., 1987). Hardin’s (1968) *Tragedy of the commons* and Meadows et al’s (1972) *Limits to Growth* are examples of key writings that have spawned the modern environmental movement: both these texts demonstrate that it is imperative for society to change its current way of operating by taking into account and safeguarding global resources for a sustainable future.

Applied in the context of urbanisation, however, the definition of ‘sustainability’ becomes more complicated to address. This stems largely from the nature of urban development which not only poses environmental impact in the process but raises questions concerning the extent to which it is acceptable to substitute natural capital with human capital – i.e. for depleted or degraded environmental resources to be replaced with the ‘equivalent’ sustenance of knowledge, skills, and population well-being. For most, sustainability in an urban context relates to *sustainable development* often defined as development that safeguards environmental resources for future generations. A prominent definition of ‘sustainable development’ was coined in the 1987 Brundtland Report as:

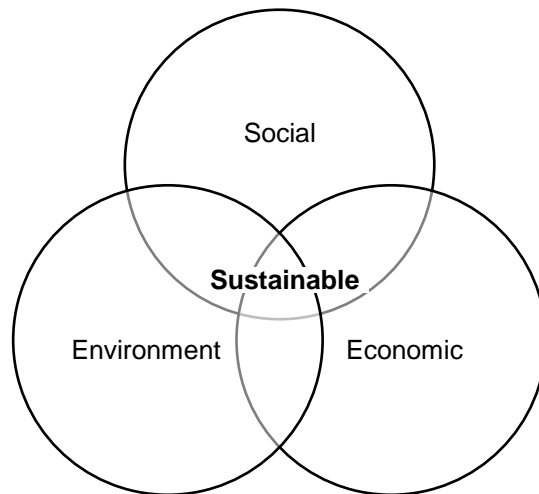
Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987).

However, the above definition is only a valid proposition provided that the value behind human capital and natural capital are assumed to be interchangeable. The complex nature of defining and delivering sustainability is connected to this very basic assumption. Rather than reaching a consensus for a worded definition of ‘sustainability’ or ‘sustainable development’, I posit that it is the underlying frameworks and philosophical standpoint of ‘sustainability’ that needs to be addressed. This primarily connects to what the literature distinguishes as *strong* and *weak* paradigms of sustainability. *Strong* sustainability adopts an ecocentric worldview where natural capital is not seen as expendable or substitutable by the equivalent of human-made capital. Here, the natural environment is addressed for its own intrinsic value rather than a resource to be managed, owned, or traded-off for human consumption. Sustainable practice that builds off this framework seeks to function within ecological limits; with philosophies abiding by the ‘preservation’ rather than ‘conservation’ of natural resources. This paradigm tends to question society’s position for endless economic growth at the expense of the environment.

*Weak* sustainability, on the other hand, defines sustainability and sustainable practice from a more anthropocentric worldview. This usually involves a technocentric perspective that is largely based on the notion of humans exerting control over natural resources. In turn, this paradigm of sustainable practice favours minimisation of environmental impact and substitution of resources

over reduced consumption. The use of technology to combat environmental issues is usually warranted and promoted under this paradigm, with human wants often retained and prioritised over the preservation of natural resources. Discourse under this paradigm aligns with arguments in favour of sustainable or ‘green growth’.

Most of the world’s current mode of practice and governance tend to fall under the latter paradigm. This is evident in the WCED’s (1987) definition of ‘sustainable development’ as well as evident in some of the most renowned frameworks for sustainable practice. Take for example the ‘three pillars’ (also known as the ‘triple bottom line’ or ‘3Ps’) that addresses economic, social, and environmental dimensions as the main pillars of sustainability (**Figure 1**). To achieve ‘sustainability’ is to balance these three pillars. Here, the economic functions of society are given as much bearing to the social (health, well-being, equity) and the natural environment. This model of sustainability would thus permit society to continuously strive for perpetual growth at the expense of natural resources provided that *somehow* these are ‘managed’ or accounted for.



**Figure 1** *The three pillars of sustainability*

*Source: Adapted from Purvis et al. (2019)*

More importantly, it is the weak sustainability paradigm and the three pillars of sustainability that corresponds to the world’s capitalist economic structure. Weak sustainability allows the private sector to thrive; contributions towards sustainability are assessed by determining how companies

are able to ‘minimise’ or ‘reduce’ their impact on the natural environment – not to ‘remove’ it entirely. As the pursuit of economic growth can still be justified under this paradigm, most businesses are in search of measures to reduce the ecological impact of their products mostly through technological advancements rather than reducing excessive production or consumption.

This dichotomy in defining ‘sustainability’ leads to even more challenging questions: how can sustainability be accommodated under a capitalist economy? More so, *is* sustainability under capitalism achievable? Most views coincide with the weak and strong sustainability paradigms (see Wilkinson and Sayce, 2015). On the strong end of the spectrum are those that would identify with degrowth theory and believe it is imperative for capitalist growth and consumption to be reduced for sustainability to be achieved (see Demaria et al., 2013). Degrowth theorists would go so far as to say that the term ‘sustainable development’ itself is inherently an oxymoron as ‘development’ which pursues growth at all costs is unsustainable (see Latouche, 2009; Kallis, 2015; Demaria and Kothari, 2017). On the other end of the spectrum are those that argue that capitalist economies aid the delivery of a sustainable society through the use of green innovation and technological advancement that are deemed only achievable through wealth created by a capitalist infrastructure. Porritt (2007), for example, contends that capitalism and its creation of wealth - albeit not in its current state and form - is the only way for sustainability to be achieved. Others such as Lovins et al., (2005) on *Natural Capitalism* and Pearce et al.’s (2013) *Blueprint for a Green Economy* suggest a change in business operations. By ‘valuing’ and ‘accounting’ for natural resources as a capital stock, resource consumption can be managed in a closed-loop manner and if necessary, natural processes can be mimicked or recreated.

To explore private property development under capitalism is thus a paradoxical challenge depending on how ‘sustainability’ is defined. It is evident that the majority of the existing literature on sustainability in business and real estate are based on the weak sustainability paradigm where ‘sustainable practice’ often minimally addresses the management of sustainability risks for organisational legitimacy and competitive advantage (see e.g. Brønn and Vidaver-Cohen, 2009; Schaltegger and Hörisch, 2017). The same can be said for ‘sustainability’ in private property



development where decisions to construct sustainable properties are often an assessment of trade-offs between economic gains and environmental contributions (see Wilkinson and Sayce, 2015).

The position taken in this thesis and the analyses that follows is not limited to examining sustainable practice under the weak sustainability paradigm. The research sets out to understand sustainability in private property development beyond neoclassical economic justifications. I will focus on investigating psychological constructs that pertain to individual decision-making, the property firm, and the role of norms and institutions within a capitalist culture that influence developer behaviour and their outlook on sustainable practice.

### **Scope and definition of ‘green building’**

The green building movement emerged at the turn of the 21<sup>st</sup> century following the sustainable development agenda. The framework for ‘green building’ stems from the design and delivery of energy-efficient buildings to minimise environmental impact across design and construction processes. It has since grown to incorporate building operation phases<sup>1</sup> as well as strategies that address the health and well-being of building occupants<sup>2</sup>. In light of the ongoing debates and discussion for more sustainable futures, green building practice has become one of the most distinguished ways property owners and businesses can contribute to environmental sustainability.

Many terms have been used interchangeably to identify green buildings such as *environmental buildings*, *eco-buildings*, *energy-efficient buildings*, *smart buildings*, *sustainable buildings*, *high-performance buildings*. To carry out this research it is thus necessary to provide a definitive understanding of ‘green building’ and with this, any limitations behind its justification.

The fundamental goal of a green building is to design and deliver a building that restricts the exploitation of natural resources and reduces resource consumption throughout its lifecycle (planning, design, construction, operation and demolition). More recent definitions have also

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<sup>1</sup> e.g. LEED for Existing Buildings: Operations & Maintenance introduced in 2004 that assesses ongoing building operations and energy-use

<sup>2</sup> e.g. Daylighting and Indoor Air Quality are present in USGBC’s LEED rating system

grown to encompass the promotion of occupant's health and well-being. The following are some definitions of green building drawn from the literature:

“Green building” is a term encompassing strategies, techniques, and construction products that are less resource-intensive or pollution-producing than regular construction. In some cases, this involves merely doing without extra space, finishes, or appliances (Hoffman and Henn, 2008, p.392).

Healthy facilities designed and built in a resource-efficient manner, using ecologically based principles (Kibert, 2008, p.9).

A “green” building is a building that, in its design, construction or operation, reduces or eliminates negative impacts, and can create positive impacts, on our climate and natural environment. Green buildings preserve precious natural resources and improve our quality of life (World Green Building Council, 2019).

Green building is the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's life-cycle from siting to design, construction, operation, maintenance, renovation and deconstruction. This practice expands and complements the classical building design concerns of economy, utility, durability, and comfort. Green building is also known as a sustainable or high performance building (EPA, 2016).

Most commonly, green buildings are defined as the design, construction, and delivery of buildings that conform to environmentally responsible practice. Similarly, in Thailand, ‘green building’ translates to *arkhan-kheaw* (อาคารเขียว); the term is a literal composition of the words ‘building’ (*arkhan*) and ‘green’ (*kheaw*). The Thai Green Building Institute (TGBI) defines ‘green building’ as a form of ‘sustainable building design practice’ with a mission to alleviate environmental impact and maintain a healthy indoor environment (TGBI, 2017).

To help practitioners assess these environmental and social contributions, the industry has since developed a number of green building ‘certification schemes’. Turcu (2018a) describes certification schemes as ‘tools for assessing sustainability performance’ that are used to facilitate informed decision-making (p.167). The first green building certification scheme was launched in the UK in 1990 by the BRE (Building Research Establishment), the scheme was called BREEAM

(Building Research Establishment Environmental Assessment Method) and was the first of its kind. The U.S. Green Building Council began to develop theirs soon after, launching their first scheme in 1998 known as LEED (Leadership in Energy and Environmental Design) (Kriss, 2014; Turcu, 2018a). Both BREEAM and LEED have grown to become two of the world's leading green building certification schemes over time. As of 2019, there are more than 560,000 BREEAM-certified buildings in over 80 countries (BRE, ca. 2019) and more than 94,000 LEED-certified projects across 165 countries (USGBC, ca. 2019).

Many other countries have since developed their own green building certification schemes (Turcu, 2018a). Not limited to these are Germany's DGNB; Japan's CASBEE, South Africa's Green Star; Australia's Green Star, Singapore's Green Mark, Malaysia's Green Building Index, as well as Thailand's TREES (Thai's Rating of. Energy and Environmental. Sustainability). These schemes often require practitioners to adhere to a list of design criteria and performance indicators. For instance, in LEED v4 for New Construction and Major Renovation, the certification criteria is broken down into eight categories: Location and Transportation; Sustainable Sites; Water Efficiency; Energy and Atmosphere; Materials and Resources; Indoor Environmental Quality; Innovation; and Regional Priority. Within these categories are 'prerequisites' and 'credits'. Prerequisites are the minimum requirements that the project must incorporate; credits are requirements that the project can choose to meet. In LEED, prerequisites and credits are usually requirements for a particular design standard. Projects are subsequently awarded a particular level of certification (certified, silver, gold, or platinum) based on meeting the prerequisites and the number of credits they achieved.

Following the above, this thesis defines the scope for green building as one that was designed, built, and assessed with certified compliance from a third-party green building institute. The rationale behind this definition and scoping is to ensure that a coherent narrative can be maintained throughout the fieldwork and for this to be managed under the time and resource constraints of this PhD.

What this research does not imply is that certified green buildings are the only means of recognising green building efforts. This research is aware of the criticisms behind green certification schemes (see Sharifi and Murayama, 2013; Turcu, 2018a). It acknowledges that while certification alone may not capture the full potential of green building or sustainable practice (see Turcu, 2018a), it provides a basic level of assumption that green building design standards have been fundamentally met as per the respective certification criteria; that it is a first step for pursuing sustainable practice within the current market economy.

I further acknowledge that green building practice is only one contributing area in the context of urban sustainability. It does not extensively acknowledge other social dimensions such as health, equity, diversity, governance or accessibility. While green building practice may not be the sole solution to future sustainability, examining private developer behaviour and their approach to green buildings can generate insight on the implications that capitalism poses on sustainable development. It is often presumed that the private sectors' engagement in environmental practices, including green building, relies on cost-benefit evaluation. This research investigates this assumption and the extent to which green building becomes a veil to further the commercialisation of business objectives.

### **Existing research on green building**

As mentioned, our current understanding of decisions to engage in green building practice has been limited by economic and market drivers. The rhetoric is one that seeks to convince practitioners that green buildings are successful business investments. With reference to academic literature and industry reports, this research proposes that drivers and barriers to green buildings often fall under one of these four groups.

First, in relation to *economic and financial* viability; these are barriers that pertain to the financial feasibility of green building projects. The most significant factor under this category is the higher upfront costs in green building projects which remain a key issue for most developers and investors (see Wilson and Tagaza, 2006; Chan et al., 2009; Pitt et al., 2009; Zhang et al., 2011a; Zhang et

al., 2011b; Samari et al., 2013; Djokoto et al., 2014; Chan et al., 2016; Chan et al., 2018; Dodge Data & Analytics, 2018). Higher costs in green buildings are incurred through the process of sourcing sustainable materials as well as the cost of additional time required to train, research, and secure expertise in green design and construction (BCI Asia, 2014). Moreover, with project competition, developers and building owners perceive financial risks associated with selling or leasing out the property as – due to the increased cost – the project may have a final price higher than its competitors (Samari et al., 2013). By far, economic factors have been most discussed and addressed as the main barrier in existing literature.

Second, in relation to the *technical and technological* capacity of adopting the practice. Barriers under this category pertain to the lack of tools, technology, and skillset (professional knowledge and expertise) required to complete the construction of green buildings (see Chan et al., 2009; Häkkinen and Belloni, 2011; Zhang et al., 2011a; Hwang and Tan, 2012; Liu et al., 2012; Samari et al., 2013; Durdyev et al., 2018). Many argue that a lack of proven case studies or precedents of green building technology make the practice seem unattractive and unviable (Chan et al., 2009; Liu et al., 2012). Another technical barrier often mentioned by practitioners is the lack of consistency in standards of green buildings and the supply of green construction materials that make the project seem unachievable (see Chan et al., 2009; Hwang and Tan, 2012).

Third, are what can be termed as *institutional and regulatory* barriers. Factors that relate to legal regulations, incentives, and support or endorsement provided by the government or other bodies that facilitate practitioners' undertaking of green building practice (Samari et al., 2013; Djokoto et al., 2014; Darko and Chan, 2017; Chan et al., 2018; Dodge Data & Analytics, 2018). The lack of building codes and long-term planning strategies have also been voiced as part of the problem behind the slow uptake (Darko and Chan, 2017).

The last group of drivers and barriers often discussed in relation to green buildings are those related to *market* factors (see Häkkinen and Belloni, 2011; Zhang et al., 2011b; Samari et al., 2013; Djokoto et al., 2014; Darko and Chan, 2017; Dodge Data & Analytics, 2018). This refers primarily

to low demand of green buildings from potential homebuyers or tenants and limited public awareness that discourages practitioners from undertaking the practice. For this, the industry believes that it is the market that must move the industry towards more sustainable modes of practice. Nguyen et al. (2017), for instance, identifies the public's misconception of green buildings as the key barrier to green building in Vietnam.

While the aforementioned perspectives are important and true, they fail to acknowledge and incorporate other areas that may hinder sustainable practices that fall within the realms of human behaviour, psychology, and social practices. I put forward a different observation to the understanding of barriers in green buildings and propose a 'hard' and 'soft' duality. *Hard* barriers refer to any barriers in the form of pragmatic and quantifiable constraints that are a function of the context that the practitioner or firm is operating under (e.g. cost, time, skills, regulations, demand), long discussed in existing literatures. *Soft* barriers refer to other constraints rooted in the human elements of behaviour, psychology, and sociological perspectives of the practice. These less tangible influences have been addressed only by a few scholars and rarely outside of academic context.

To this end, the foundation of this research builds on the argument for human agency as an important element in sustainable development and practice. The works of Hoffman and Jennings (2012) (also Bazerman and Hoffman, 1999; Hoffman and Bazerman, 2007; Hoffman and Henn, 2008) argues for 'a greater and more varied voice from the social sciences (e.g., sociology, psychology, anthropology, political science)' (p.2) to address the issues of climate change and sustainability. This research similarly identifies psychology alongside behavioural and cultural institutions as equally relevant barriers to the industry's adoption of green building practice. As Hoffman and Jennings (2012) explain:

[As the debate on climate change] has intensified, the social sciences, for the most part, have not been heard. The scholarship in this debate has come largely from the physical sciences in defining the problem, and from one narrow branch of social science—neoclassical economics—in generating solutions. Both disciplines focus heavily on the

quantitative and rational treatments of the climate change issue, rather than on its more qualitative and less rational dimensions, namely human behavior and culture.

... a greater and more varied voice from the social sciences (e.g., sociology, psychology, anthropology, political science) is needed to address issues related to *how* the problem is accepted by the public and *how* that public will respond to the solutions that are imposed upon it. Such an expanded view will help develop a social consensus around both the reality of the problem and the effective implementation of solutions (p.2).

This research does not suggest that that the economic rationale behind green buildings is irrelevant or that economic, technological, regulatory, and market factors should be discounted from future discussions. However, in light of what Hoffman and Jennings (2012) put forward, I share the understanding that it is important to expand the current discourse to account for the *softer* barriers in green building practice as these may be equally rooted in individual behaviour and society's own culture and institutions.

### **Introducing an organisational behaviour approach**

In order to capture the *softer* dimensions of developer behaviour towards green building, this research introduces an organisational behaviour approach to study private developers as individual agents in the development process. Specifically, this research:

- 1) Draws on and applies theories in organisational behaviour to develop a theoretical understanding and framework for the behaviour of developers as organisations;
- 2) Utilises the developed framework in identifying the relevant organisational and psychological constructs that shape developers' decisions to engage in green building practice;
- 3) Empirically tests the relevance of these constructs in the case of large private developers in Bangkok and their responses to green building practice

To explain the contributions of this approach, it is helpful to give an overview of the existing understandings of developer behaviour. Developer behaviour in the literature is mostly interpreted as a developers' response to an available development opportunity, with 'opportunity' often

reflecting the availability of resources, market, economic, and socio-political conditions. Coiacetto (2001) for instance, defines developer behaviour as ‘the developers' motivations and decisions about such matters as: entering the industry; the location, timing and type of development; the geographical extent of their activities; and approaches to the financial appraisal or opportunities’ (p.44). To this extent, it is recognised that there is diversity in developer behaviour as developers respond differently to market conditions using different strategies.

Developer behaviour has also been addressed differently in relation to various models of the development process (see Healey, 1991). These models often view developer behaviour and their decision-making as a rational response to the economics of the development process (i.e. a response to supply, demand, and the movement of capital). It was only the institutional models of property development that were introduced in later years that began to account for the complexities of *structure* and *agency* in the development process (see Healey, 1992; Guy and Henneberry, 2002). Structure is seen as the resources, institutional rules and ideas (e.g. material, legal administration, customs, power) that govern the development process under which choices of individual agents are made; agency as the way individual agents ‘develop and pursue their strategies’ (Healey and Barratt, 1990, p.90).

This research aims to explore the behaviour of property developers as individual agents, probing into behavioural influences that stem from the developer organisation. The theoretical framework offered in **Chapter Three** does not see itself as a direct extension to Healey’s institutional model, but rather, an alternative approach to understanding developer behaviour. This new approach would enable a series of organisational and psychological constructs to be identified and investigated in relation to the developer’s response. I propose that the characteristics and response of developers as individual agents merit their own tier of analysis; one has yet to be – to the best of my knowledge – explored in property research.

It is under these assumptions that an organisational behaviour approach is appropriated. Developers are main agents in the development process, yet there is a limited understanding of the internal



processes that give rise to their behaviour. Empirical studies that ‘enter the thinking of the developer’ are said to be relatively uncommon (Coiacetto, 2001, p.47). I would further argue that the *softer* side of developer behaviour is missing from our current understanding of developer behaviour and property development as a practice.

Thus, the contributions of this research are twofold. First, to offer an alternative framework from previous studies that enable the study of developer behaviour outside the field of mainstream economics; taking into account the psychological dimensions of organisational culture and decision-makers within the developer organisation. Second, to contribute in the form of empirical evidence, a more detailed set of analyses through this framework in the form of organisational and psychological factors that influence private developers’ decision to undertake green building in Bangkok. In the end, findings from this research lead to discussions around notions of responsibility, leadership, and experience as well as other structural constraints that can be discussed in terms of norms and institutions. These are reflected on to provide further implications for policy-making and future research.

### **Structure of this thesis**

This chapter aimed to set up the context and provide an introduction to this research. It introduced the main research questions and objectives, the motivation and contributions behind this research, and positioned this in the context of the wider literature. It introduced and explained the significance of utilising an organisational approach to unpack the *softer* behavioural dimensions of private developers in developing Asia through the case study of Bangkok; seeking to better understand ‘how’ and ‘why’ large private developers engage in green building practice.

The rest of this thesis sets out to explore and respond to these research aims and objectives. **Chapter Two** discusses private developer behaviour in the current capitalist economy reflecting on how developers operate particularly in Thailand and the Southeast Asia region in relation to land and capital, as well as their role in urbanisation. The content serves as a foundation for analysis and discussion of empirical findings in the later chapters.

The second part to the literature review outlines the main concepts from organisational literature and applies this to the context of developer behaviour and green building practice. The chapter draws on theories and constructs from the fields of *organisational theory*, *organisational behaviour*, *organisational psychology* as well as *corporate responsibility* and *corporate environmentalism*, and connects to how developers and their adoption of green building practice can be understood.

**Chapter Three** reflects on and pulls together the main constructs from the literature review to form a conceptual framework that is proposed to illustrate the behaviour of private developers as organisations. The framework captures a broad range of factors that are seen to make developers 'tick', including those that are usually depicted in the literature (economic, social, technological, political and physical) as well as two other factors which arguably remain overlooked: the individual psychology of top managers and influences from organisational culture. Towards the end of the chapter, the framework is narrowed into eight psychological areas of investigation (AoIs) that set up the foundations for the fieldwork. Four investigate the individual constructs of top managers in relation to green building practice and the remaining four address the developers' organisational culture.

**Chapter Four** presents an outline of the research design and methodology. This research undertakes a qualitative approach to understanding the behaviour of developers and their responses to green building practice. Research fieldwork took place from March 2016 through to December 2017 where documentary analysis was conducted on 44 publicly-listed developers in Bangkok, and 22 semi-structured interviews were conducted with either top managers or representatives. The 44 listed developers can be seen as the largest private developer firms registered and operating in Bangkok at the time this research was conducted. **Chapter Five** provides a brief overview and summary of the city together with trends in property and green building development in Bangkok.

**Chapters Six, Seven, and Eight** represent the empirical chapters of this thesis. It presents the findings and analysis from the fieldwork following the methodology outlined in Chapter Four and

the framework presented in Chapter Three. Chapter Six begins with an overview of the findings on the 44 developers' organisational profile and their patterns of engagement with green building projects. Chapters Seven and Eight depict findings and analysis of the eight AoIs - Chapter Seven that of organisational culture and Chapter Eight in relation to individual constructs of top managers. The discussion sections at the end of each chapter aim to summarise and broaden the analysis further by highlighting emergent themes as well as connecting these discussions back to the literature.

**Chapter Nine** draws in closer to the analysis of the eight psychological areas and identifies *responsibility, leadership, and experience* as the themes holding significance over Bangkok's developers' decision to engage in green building practice. Responsibility and leadership are contingent on the individual constructs of top managers in the developer organisation; experience to reflect both managerial and corporate experiences. The research at this point argues that these are examples of *softer* factors that exist in practice but are often overlooked when discussing green building and property development. The latter evolves into a critique of the cultural and institutional factors posed by the capitalist market economy that weighs in and constrains decisions of top managers in the firms.

Finally, **Chapter Ten** brings this thesis to a close. The chapter recapitulates the main objectives of the study and provides answers to the research questions. The thesis ends with key implications that can be carried forward, particularly with regard to the need to address green building practice and the wider sustainability agenda on an institutional level alongside reflections on the social and environmental impact caused by privatisation. This chapter reflects on the discussion of the findings and analysis across literature and empirical chapters as well as my own positionality that has evolved through the course of this research.



# Chapter Two

## Conceptualising Developer Behaviour

Central to this study is the argument that private property developers are economic actors in the form of commercial organisations. **Chapter One** outlined and justified the imperative for introducing an organisational behaviour approach to the study of property developers and their engagement in green building projects. In this chapter, I begin with an outline of the way developer behaviour in the current state of political economy can be understood. I trace this back to the understanding of developer behaviour as economic actors in light of the capital economy, their utilisation of land and capital, and the role of private developers in urbanisation particularly in the context of Thailand and the South East Asian region. This comprises **Part I** of the chapter.

In **Part II**, I present some of the main theories and constructs from organisational literature that explain how organisations behave and perform. This section focuses on unpacking the understanding of organisations as open systems and identifying factors involved in shaping firm behaviour, and the literature review on corporate sustainability identifying antecedents to environmental and sustainable practice in organisations. These understandings lead to the development of the theoretical framework proposed for this study outlined in **Chapter Three**.

The purpose of the literature review is to give a broad outline of how developer behaviour – as organisations – can be understood. At the same time, the review highlights and brings forward other aspects of behaviour that I argue is missing from our current understandings of developer behaviour; particularly constructs that relate to the psychology behind organisational processes and actions.

## I.

### **Private Developers and the Capitalist Economy**

The massive growth of the private sector in the late 1970s led to a period of rapid economic transformation for many cities around the world (Bortolotti et al., 2001). The period marked an era of economic growth achieved through capitalism and privatisation of the market, growth of private ownership and business ventures and trading of capital for profit. Policies in favour of market deregulation paved the way for operationalisation of a 'free market'. Neoliberalism was at its prime with many government institutions enabling the private sector's autonomy and promotion of self-interest to enhance economic development. Capitalism and the capitalist economy expanded to define the present-day market in most cities. This was a transition that left its mark in the aspirations and function of today's socio-political economy and it is within the foundation of this discourse that establishes the rhetoric used to discuss the operationalisation of private businesses, including private property development.

In Western parts of the world, the growth of the capitalist economy is what many refer to as the rise of the '*enterprise culture*'. The term first emerged as part of Britain's political motif under the Thatcher regime (Besley and Peters, 2007). It was the period when the British government began supporting the private sector to drive forth market transformation to enhance economic efficiencies. The emancipation of entrepreneurial activity by way of capitalist individuals was seen as a means for Britain to be 'strong and free' (Roberts, 1992, p.15). The culture of risk-taking, competitiveness, and self-autonomy drove economic development (see Bishop and Kay, 1989; Dodd and Anderson, 2001). The enterprise culture was described as a shorthand for a collection of values including that of 'freedom', 'the politics of individualism', 'independence from the state', and at its core, 'the pursuit of self-interest' (Deakin and Edwards, 2005, p.2).

In developing regions such as Southeast Asia, capitalism similarly proliferated the market economy albeit differently. For the region, it was by way of overseas Chinese entrepreneurship working closely with local governments and colonists during and after the Second World War. By the time

the region gained independence from colonial states in the 1950s, it was through the growth of enterprises set up by Chinese ethnic elites that the economy grew. The region's low state capacity meant that governments began resorting to private firms to achieve their goals. At the same time, governments' corruption and inefficiency led to private firms (often belonging to Chinese ethnic families) to pursue rent-seeking<sup>3</sup> strategies instead of innovative activity (Tipton. 2009).

Similar to Britain's rise in the enterprise culture, development policies in Southeast Asia were established to enable private-led market activity. A culture of dependence between state and private enterprises was fostered and the region experienced rapid economic development through privatisation up until the region's economic crash in 1997. Economic development stalled thereafter but elite dominance over private businesses prevailed. By the early 2000s, it was estimated that half of the market's corporate assets in the region were controlled by approximately ten families from each nation (Tipton, 2009) – a similar statistic is prevalent today in the property market capitalisation by Bangkok's largest developer firms (**see Chapter Five**).

Incorporating the understandings of the capitalist economy into the discussion of developer behaviour is essential to unpacking the crux of their behaviour. This is because one can argue that at its core, the nature of private property development inherently falls under the function and characteristics of a capitalist economic system. Capitalist economies are about capital accumulation; it entails the process of 'capitalising' – or exploiting – social, environmental, and financial resources to achieve its goals. It is about private ownership and the trading of private commodities in pursuit of economic growth. When applied to the property sector and private property development, developers' primary objective is said to be 'unashamedly of profit maximisation' (Ratcliffe et al., 2009). Capital accumulation is enabled through land ownership and through either the trading of land as a commodity or the generation of rent from private landownership thereafter (Massey and Catalano, 1978).

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<sup>3</sup> Rent-seeking is a concept in economics that states that an individual or an entity seeks to increase their own wealth without creating any benefits or wealth to the society. Rent-seeking activities aim to obtain financial gains and benefits through the manipulation of the distribution of economic resources.

The objective of the next few sections is to introduce a summative review of existing literature on property and developers. This is to generate a better understanding of how developer behaviour can be currently understood. This review of the literature also seeks to demonstrate how current models of developer behaviour are grounded within capitalist structures that have been increasingly argued as contradictory to the nature of stronger sustainability paradigms. It is the critical examination of these principles in conjunction with findings that emerge from the study later informs the arguments and discussion in the final chapters.

### **PROPERTY DEVELOPMENT AS ECONOMIC ACTIVITY**

The capitalist economy has characterised much of the private property industry where the development process can be identified as an economic activity. Developers as economic actors respond to market demands via the supply of development projects as a product and service. An ‘economic actor’ is defined as a person, company, government, or society that utilises *land, labour* and *capital* to shape an economy (Farlex Financial Dictionary, 2009) to which decisions are usually made to maximise self-interest. Private developers as companies can be seen as economic actors in the market through their utilisation of land as a physical resource, labour in the form of workers employed to design, construct, manage, and market the project, and capital in the financialisation of the development process.

From a sociological point of view, it can be argued that the dominant discourse in property development has been founded and thus remains on economic terms. The *raison d’être* for large private developers revolves mostly around the generation of wealth and growth of their business venture. Britain’s commercial property boom in the 1940s to 60s for instance was identified as ‘one of the most profitable industrial booms’ that created an enclave of extremely wealthy individuals (Marriot, 1989). Marriot’s account listed 108 men and 2 women, each of whom made at least GBP 1 million during this period. It is also evident how property developers were perceived as businesspersons that generated wealth by managing land and capital; their behaviour akin to any other commercial business venture that seeks to exploit opportunities in the market:



Property developers have often been portrayed as wizards with land and money, and men with an uncanny foresight. This is nonsense. They deserve this reputation no more and no less than any other group of proprietorial businessmen. Some operated intelligently; others crudely. But they were men who happened to be in the right business at the right time and, given the profit margins in that business, could hardly fail to make money (Marriot, 1989, p.8).

In line with the above, the understanding that developers are economic actors whose aim is to maximise profit is still arguably the prevailing view. Coulondre and Jacobs (2017) more recently outlines developers' objective as follows:

From the developers' perspective, selling a building or its units is an opportunity to create a profit margin on the capital used to develop it. That margin, which developers keep track of with accounting tools, represents the returns generated by the development project. Developers who have used their own capital then pocket the profit while developers who initially turned to financial partners turn over that margin to them while billing them for whatever work they did to increase the value of their capital. In both scenarios, what the developer is trying to do is create a profit margin (p.31).

Brown (2015) in *How Real Estate Developers Think* explains the generalisation that developers are 'rich, greedy, and driven by profits' is merely consequential to what developers must do to survive in the industry (p.8). To remain in business, developers must aim to finance and sell a product in advance for a price greater than its cost. This means stringent negotiations with multiple parties to ensure cost-control and realistic management of buyer expectations. Due to the complex and high-risk nature of their business, developers have limited capacity to diverge from their main objectives and are less likely to undertake requests that are beyond legal or contractual obligations. This poses a problem in decision-making as developers become dependent on the market or other forms of economic incentivisation.

The rest of this section further exemplifies how the development process can be seen as grounded within the political economy of capitalist production. I draw on the fundamental stages of the development process identified by Ratcliffe et al. (2009) to demonstrate and review some of these principles. It is important to note that there are numerous models to which the development process

can be articulated but it is within the 'event-sequence approach' (see Healey, 1991) that Ratcliffe et al. used to outline the following five stages that effectively summarises the core activities of a development project:

- Concept and initial consideration
- Site appraisal and feasibility study
- Detailed design and evaluation
- Contract and construction
- Marketing, management and disposal

#### *Concept and initial consideration*

Every development fundamentally begins with ideas around what to build or develop. In Ratcliffe et al. (2009) this stage is 'establishing objectives for the development organization and generating ideas to meet them' (p.331). For the private sector, it is explained that the 'overriding objective is unashamedly one of profit maximization' (p.331). For others where economic profitability is not the main goal (e.g. public sector developers), this would be contingent on the developer's ethos and function. For example, a developer's objective from the public sector might be to remove people from a housing waiting list, and thus the initial conception of their project will be targeted as such. This stage also consists of market research and the acquisition of an appropriate development site.

#### *Site analysis and feasibility study*

The second fundamental stage in the development process is for developers to assess the viability of their proposed project. Occurring after the selection of a potential site and initial conception of the project idea, this step is explained as a 'refined and closer look' into market trends, physical constraints, and other practicalities (ibid).

Looking at market trends is specified as a closer examination to changes in the industry sectors, the projection of rent, value and yields, and estimations of costs and time for a development project. Assessing physical constraints account for the assessment of the viability of physical

elements of the project such as the design, engineering works, soil quality, and land contamination. In most cases, developers following these assessments would seek to ‘ensure that the basic concept achieves the optimum use of the site or buildings and maximizes the amount of letting or operational space’ (ibid).

As part of this stage developers must also manage other practicalities such as negotiate planning and construction permission, communicate with external stakeholders and community groups, as well as secure a suitable source of project funding.

#### *Detailed design and evaluation*

Following site analysis and investigation, the third stage is generating a detailed design of the project. Developers work with design teams to come up with a project brief and preliminary design that are then evaluated for planning approval and budgeting forecast. Within this stage, developers are concerned with the appointment of a professional team to construct the building in accordance with the initial design and management of issues related to budgeting, taxation, marketing, and other technical functions.

#### *Contract and construction*

Following the development of a detailed design is the construction and delivery phase of the project. This is another fundamental stage for developers where attention is dedicated to managing arrangements made with selected contractors. Once the project undergoes construction, developers devote their time to monitoring the project’s viability and progress to ensure that key milestones and the completion date are adhered to. Another fundamental concern in this stage is the commissioning of equipment being installed on-site prior to project completion as well as other construction supervision activities.

#### *Marketing, management, and disposal*

The last fundamental element for developers to consider is the marketing and management of activities after project construction is complete. It is, important to note that marketing and

management activities will also happen concurrently to other stages of the development process.

Marketing in this stage concerns decisions made around marketing campaigns – when and how they should be conducted. Though it is noted that from the beginning of the project, it is the developer’s task to focus attention on marketing aspects and how it would affect the development project in light of market demands. Management includes the management of safety and security of the project during the construction period, property management, and maintenance programmes following the handover of the development project. It also touches upon the management and revisiting of funding agreements during and after project completion, and management of lease or sale contracts of the project so as to preserve an optimum return on investment (e.g. length of leases, terms of contract).

Through the five stages of the development process, emphasis is placed on the acquisition of resources, design and construction, and the management of the project to maximise its saleability. What this means for sustainable property development is that social or environmental factors will have to be considered in light of its capital value; not independently on its own merits. Literature on sustainable property development introduces sustainable measures across the development process, with emphasis given to sustainability in location selection, design, procurement, assessment, and post-occupancy evaluation (see Keeping and Shiers, 2004; Radcliffe et al., 2009; Wilkinson et al., 2015). These, however, are not decoupled from the economic rationale. The fundamental motivations of the development process are rooted in the capitalist economy which is reflected in the rhetoric of development activity.

### **LAND, LABOUR, AND CAPITAL**

Marriot’s (1989) analogy of the property development describes the process as a ‘*system*’ where the developer is seen as an ‘*impresario*’ – a catalyst or middleman – that creates nothing himself but enables the creation of things:

His raw material is land, and his aim is to take land and improve it with bricks and mortar so that it becomes more useful to somebody else and thus more valuable to him (p.24).

Property development can be seen as a transformation activity in which land serves as the primary 'raw material'. Developers can be seen as individuals or organisations that bear the responsibility of transforming that land into an alternative product, creating value, and generating capital in the process.

In doing so the development process is described as one that is complex as it involves a multitude of actors (see Guy and Henneberry, 2000; Cadman and Topping, 2002; Wilkinson and Reed, 2008; Ratcliffe et al., 2009). The relationship between land and capital is moderated by this group of actors where developer behaviour is contingent to (or restricted by) the skills, resources, and interests of the stakeholders involved. The capitalist foundation of development as an economic activity poses yet another challenge when corporate stakeholders confronted with sustainable practice are required to balance trade-offs with contributions to socio-environmental welfare in lieu of profitability and shareholder wealth.

There are various ways in which stakeholders in the development process can be identified; in Ratcliffe et al. (2009), participants involved in the development process are classified as either 'development agencies' or 'members of the development team'. Development agencies are the private companies and financial institutions involved, while members of the development team are the professional individuals such as architects, engineers, and consultants.

In this research, it is effective to conceive the multitude of actors as falling within groups of internal and external stakeholders to the firm. Internal stakeholders are owners or are employed directly by the developer company – e.g. shareholders, managers, board of directors, administrative staff, and the design team. The design team may comprise of architects, engineers, consultants – depending on whether these roles are in-house or outsourced. External stakeholders are those affected by or have stakes in the development that operate outside of the firm. These would be financial

institutions (e.g. banks, investors), government or public sector authorities, prospective tenants or buyers (i.e. consumers), contractors, property valuers, real estate agents and all other members of the society that may take part or be indirectly affected by the development activity (e.g. community groups, neighbourhoods, NGOs).

Each stakeholder has their own agenda, thus, their position on the development project will differ. For private developers, there has always been a focus on financialisation and the financial outcome of the development project. Looking back again at some of the earliest accounts of developer behaviour, Marriot (1989) describes developer behaviour during Britain's post-war property boom as one where the merits of successful project delivery were determined by its economic returns:

Only a minority of the developers were particularly concerned with the aesthetic design of their buildings. [...] since they were promoting their buildings for entirely commercial reasons, this is hardly surprising. I asked Mr Charles Clore [City & Central Properties Rodwell Group], in the exchange of letters which was his substitute for an interview, which of his developments he was most proud of. His deadpan reply indicated that he was fond of a massive building in the Southwark Bridge Road, "which in fact is one of the largest office developments in London but was built in record time..." The letter added gratuitously that "He does not believe in any great architectural triumphs which end up in bankruptcy" (p.28).

Developer behaviour was to maximise construction on a given site, often utilising the site's entire permissible plot ratio<sup>4</sup>. Architects were employed by the developers on the basis of their ability to design for the maxima together with the speed at which their design could be delivered. This included their knowledge to navigate around nuances and loopholes in planning regulations (Marriot, 1989). What developers wanted from the architects was a 'commercial service': 'they needed functional buildings designed to a certain price, usually the lowest possible' and builders organised 'so that the development was finished on the specified date' (ibid, p.28). Most architects employed by the largest developers at the time of the property boom were described as 'business-minded architects' (ibid, p.33).

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<sup>4</sup> *Plot ratio* or also known by some as *Floor Area Ratio (F.A.R.)* is a numeric figure that determines the relationship between the site area and the total gross floor area of the building. F.A.R. has been used as a planning tool to restrict the density and built-up of units in particular areas (often accompanied by or through zoning laws).

Although Marriot's account of British developers was over 70 years ago and was taken during the reconstruction of cities after the Second World War, these underpinnings to developer behaviour and their attribution to the business case still applies today. For private developers, the main objective is 'unashamedly one of profit maximization' (Ratcliffe et al., 2009, p.331). And while one can argue that more attention has been given to social and environmental welfare in today's development process, it is evident that at present, developers' priorities are still rooted in economics and commercialisation. This critique is not to say that the behaviour of private developers should be deemed as problematic, for behaviour corresponds to larger institutions embedded in culture and in society. In the case of private property development, developers' aim to generate finance and respond to economic situations can be seen as a product of the economic foundations that their activities are founded upon.

Provided an economics framework is maintained, developers' behaviour to commercialise their product as agents within the capitalist economy is nothing more than rational. The delivery of a development project requires large sum of financial resources. The construction of an office building cannot be compared to the construction of a shed in one's backyard. In most cases, developers must secure substantial funds to finance their project. Depending on the developer's approach, funds may be secured through external financial institutions such as banks, trusts and bonds, or the government. For others, capital investment may be generated internally from the developers' own firm, shareholders, or secured as advance payment from prospective owner-occupants that may be occupying the building in the future (see Ratcliffe et al., 2009).

Developers' approach to financing would also differ according to development policies and the political economy they are operating under. Their approach to financing may reflect the firm's business model and hence their approach to development. For example, depending on the financial agreement between the developer and their lender, projects would be designed and managed differently so as to generate returns in the short or long term. The contractual agreement between

developers and their financial institution determines key milestones for project delivery and these are contingent to intervals at which financial loans and interests are being repaid.

Certain models of development finance may also be suited particularly for short or longer-term investment. Take for instance ‘forward sales’ where developers look for a guarantee arrangement with an investor or prospective owner to purchase the property once it is completed. The developer (as a borrower) requires the financier (as a lender) to fund the acquisition of land and construction costs of the property. In these cases, the crux of the agreement rests on the developers’ negotiation with their financier on the sale date, lettings, rental growth, and the effect of any mishaps that may be caused by delay in building works. This can be seen as a short-term model where developers remove themselves from the development process once the project is handed over. In the medium or longer-term models, developers may choose to rely on their own private capital, partner with other developers/institutions as a joint venture, or even explore other investment vehicles such as real estate investment trusts (REITs). In this latter model, developers may not choose to trade but retain their completed development so as to act as property investors themselves (see Ratcliffe et al., 2009).

The landscape for development finance and property funds are constantly changing in line with the local political economy. Approaches that were preferred but since dissipated may regain popularity in a later decade; development finance is also constantly evolving with more refined and sophisticated approaches (see examples in Marriot, 1989; Smyth, 1985; Ratcliffe et al., 2009). REITs, for instance, are relatively new compared to traditional means of development<sup>5</sup> and only emerged in the 1960s when the U.S. Congress founded the platform for the public to be able to invest in real estate without having to resume the direct role of a landlord (see Chan et al., 2003). To date, REITs have been made popular and utilised as a property investment vehicle across various countries including in Thailand where they were introduced (along with other property funds) in the 2000s to resolve the real estate turmoil after the 1997 financial crisis (Amonhaemanon,

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<sup>5</sup> Where the developer borrows money to finance the acquisition of land and/or percentage of the cost to develop the land. The developer would then employ a building contractor through a building contract and secure the contract via a performance bond.



2018). REITs only officially replaced the Stock Exchange of Thailand's (SET) existing property fund ('Property Funds for Public Offering') in 2014 (ibid).

It is to this end that one may argue developers' business models can inherently define their approach to development. The arrangement of different development objectives depends on how the development finance was secured, and whether developers operate on short, medium, or long-term goals. I would further argue that on a softer level, these understandings shape and constrain perspectives on development to which a capitalist and economic approach is retained. Fundamentally, this restricts a developer's view of their responsibilities, their involvement with the development, as well as restricts the viability of sustainable practice within economic considerations.

### **PROPERTY DEVELOPERS AS AGENTS IN URBANISATION**

In the sections above, I outlined the nature of property development as an economic activity and the private developers' role as agents in the capitalist market. In the process, I have also reflected on developer behaviour from an economic perspective and some of the challenges this may pose on sustainable practice. I will continue to reflect on these nuances in light of the empirical findings and analysis, and discuss this in later chapters.

In this last section to Part I of the literature review, my aim is to take on an alternative stance in reviewing how private property development and private developers can be seen as agents in the urbanisation process. In the literature, this is often articulated as a view adopted after the neoliberalisation of the market economy. The public sector begins to recognise the power of private institutions, and in the case of property development, policies were issued that utilised the private developers' capabilities to drive forward the city's urban development. To demonstrate this more vividly, this section draws on some of the events that have taken place in the form of British 'planning gains' as a Western example and compares them to the Thai case where the government sought to collaborate with private developers in a similar manner.

Following the growth of the free market economy in the late 90s, an observation can be made on the myriad of government policies that had sought to deregulate, control, and then collaborate with private developers to drive urbanisation forward. This may not be generalisable as a trend across all countries but in cases like Britain and Thailand there is some evidence. *Planning gain* (also known more recently as planning obligation) was incorporated in the 80s by British planning authorities as a mechanism to incentivise private developers in the provision of physical and social infrastructure within the vicinity of proposed developments. Developers relied on the negotiations for planning permission and were obliged to contribute towards wider socio-environmental benefits concurrently as a product of their development activity (Claydon and Smith, 1997).

While the concept of planning gain remains unique to the British planning system, the Thai government led a similar approach in the past where private-led development was supported as a means of serving the country's development activity (see Sheng and Kirinpanu, 2000; Sheng, 2002). In Thailand, it was with urban housing provision throughout the 1970s and 80s. Thailand's National Housing Authority focused their resources on low-income housing and relied on the private sector to deliver housing for the middle-income group. The government would facilitate the process by lowering interest rates which enabled the private sector to produce housing at lower costs. As Sheng and Kirinpanu (2000) note,

...the public sector (i.e. the National Housing Authority) has never played a dominant role in urban housing provision. Rich families build their own houses in the posh residential areas; poor families build their temporary shacks in land rental slums; middle-income families depend on the private sector' (p.12).

The similarities in the Thai and British context provides insight into the role that private developers can uphold as agents in urbanisation. To further demonstrate this potential collaboration between private developers and the state in furthering urbanisation, more recent case studies in Fainstein (2001) can be considered. Fainstein proposes that private development, together with state partnership can be key to fostering better social results in the built environment; that to an extent, this dynamic is inevitable especially in contexts where large multi-national corporations dominate the market (see also Beaverstock et al., 2003). A precedent outlined in her book is London's Battery

Park City where financial benefits from the project were said to be ‘disseminated back to the general population’ and its ‘principle private developer went beyond meeting its contractual obligations and provided the public with significant amenities’ (Fainstein, 2001, pp.84-85). This idea of ‘private-led but state-fostered’ development has also been linked to approaches by which political economists and development authorities can help to improve urban planning and development, especially in the realms of public participation and affordable housing delivery (Beaverstock et al., 2003).

Collaboration between the private sector and the state has also informed sustainable property development activity. Numerous countries can be found deriving fiscal incentives to increase voluntary construction of sustainable buildings by making them more attractive. The marketability of environmentally friendly buildings has in fact been explored years before the concept of green building came to fruition. Dibb and Wensley in 1987, for instance, explored the correlation between consumer knowledge and their preference for energy-efficient homes (Dibb and Wensley, 1987). More recently in the past decade there have been discussions on incentives designed to attract property owners and developers to construct green buildings. Most notable are fiscal policies rolled out in the form of tax reduction and abatements, grants, discounted development application fees to incentivise the delivery of certified green buildings (Olubunmi et al., 2016). Precedents have been established in countries such as the U.S. where LEED originated. Numerous countries have followed suit including Thailand which has most recently adopted the F.A.R. Bonus policy in its latest 2013 Bangkok city plan (see details in **Chapter Five**).

The nature of this public-private relationship can be seen as one where the state supports the role of private developers as economic agents and further seeks to influence the desired outcome of particular projects – be it in the form of increased housing development or environmental buildings. It is to this end that the nature of private developers under a capitalist economy can be viewed as complementary rather than a hindrance in effectively fostering social and environmental sustainability. Provided that the state incentivises accordingly, behaviour of developers can be influenced and reinforced in favour of this agenda.

In reviewing urbanisation processes under a capitalistic system, it is not only the role of actors (i.e. the state, private developers, and the market) that needs to be considered. Equally important are land and planning policies that influence the development process; most of which have emerged and changed during the neoliberal era. In the former section, land and capital were highlighted as fundamental materials in fuelling development activity. Inherently, it is also the management and regulation of these materials that enable the development process. This is where the role of state authorities impacts private development the most. In the next section, I draw on Bangkok's property boom and subsequent bust in the late 90s to reflect on the role that land, planning, and economic policies have had in facilitating real estate development and developer behaviour in the past under its capitalist economy.

### **REFLECTIONS FROM BANGKOK'S 1997 REAL ESTATE CRISIS**

*Land* and *capital* can be seen as representing the two fundamental sources of raw material on which developers rely. The two can also be seen as resources that state actors can use to manage and control (via policies), the pace and outcome of private property development. On *capital*, state authorities may choose to adjust the conditions or act as a financier or lender for the development of projects. Related policies subsequently enable private-led construction by creating attractive financialisation. This can be applied to Bangkok and its property boom in the late 1980s to mid-90s which was heightened through lending practices in the economy. The property market was fuelled initially by local and government banks, subsequently through foreign borrowings and investments from other private-owned finance companies (Sheng and Kirinpanu, 2000; Renaud, 2015). The rapid growth of the property market reflected the country's flourishing economy during this period. Together with underregulated banking and lending practices by the government this meant that lenders had plenty to offer without definitive collateral.

Bangkok's urban real estate stock at the time outweighed its gross provincial product with real estate stock representing an equivalent of 45 percent of the country's GDP. Real estate assets in Bangkok were worth double of the total capitalisation value of Thailand's stock market and was

valued at 2,200 billion Thai baht (THB) (approx. GBP 55 million) in 1997 (Renaud, 2015). Sheng and Kirinpanu (2000) in depicting the era, describes how ‘it would not be an exaggeration to say that half of Bangkok’s landed families became real estate developers and the other half became real estate investors and speculators’ (p.15). For Bangkok’s built environment, this period also meant a rapid transition from traditional housing to condominiums, apartments, and shophouses; growth of office buildings, hotels, and change of street markets to shopping centres (Sheng and Kirinpanu, 2000; Renaud, 2015). It was a prominent transition for the city’s urban landscape.

On *land*, there had been advancements in patterns of tenure and ownership that facilitated private development activity. Some of these broke through as a product of the city’s transition towards a capitalist economy. Before the period of privatisation and its transition to a constitutional monarchy, Thailand functioned very notably under the reign of previous monarchs. Since the first King unified the country over 700 years ago, all land in the kingdom before market liberalisation was owned by the King. Being an agrarian country, farmers were permitted to the acquisition of land ‘on the condition that they exercised de facto occupancy and cultivation’ (Yano, 1968, p.853).

It was only in the reign of King Rama V in 1901 that the modern idea of the ‘right to own land’ or ‘land ownership’ was introduced. The 1954 Land Code that is still in effect today was later legislated under the rule of the late King Rama IX (Kemp, 1981; Feder, 1987; Feder and Onchan, 1987). Together with land development regulations, landownership patterns made private development activity possible with weak regulations in planning and construction further accelerating rapid urbanisation (Browder et al., 1995).

While Thailand’s rapid economic growth and private development activity depicted some of the country’s most successful period, it created detrimental consequences. Bangkok’s property investors and developers at the time were described as ill-equipped with knowledge of real estate risks and the property market (see Sheng and Kirinpanu, 2000; Brown and Liu, 2012). Overvaluation of property prices along with the use of outdated regulations in lending practices led to overinvestment in the property sector. The trajectory inevitably led to a property bust that

contributed to a significant part of Thailand's economic downfall during the 1997 Asian Financial Crisis (Lauridsen, 1998; Sheng and Kirinpanu, 2000; Renaud et al., 2001; Renaud, 2015).

Developers at the time ranged from small to mid-sized families to listed firms. Most were inexperienced and new to the sector and relied on visual surveys and mass media as main forms of market research. This meant that a large number of developers were susceptible to inaccurate rendition of market trends and projection at the time (Sheng and Kirinpanu, 2000). This typically would have posed a challenge in securing the necessary funds for development projects. However, as Thailand's economy was flourishing at the time, commercial banks referred clients to subsidiary finance companies that were willing to lend money for risky projects at higher interest rates (ibid).

Thus, Bangkok's property investors had little to worry with high accessibility to financing and an abundance of demand for properties. Moreover, most of the property companies set up at the time were one of the many business ventures that the entrepreneurs own.

...the majority of office buildings in the BMR [Bangkok Metropolitan Region] have not been built by specialized property companies who understand the specificity of real estate risks and the dynamics of cycles, but rather by a variety of business companies with very different core businesses. The management of these corporations has limited knowledge of – or interest in – the field of corporate real estate management. Their decisions were not driven by sustainable rents and yields, but by easy access to credit, tax considerations, a “trophy” mentality, and euphoria. (Renaud et al., 2001, p.38).

Many developers had one characteristic in common: they did very little market research, which was considered unnecessary, because the demand was everywhere. Someone owning a plot of land ready for development would simply look in the neighbourhood to see what there was for sale and would build more of the same. (Sheng and Kirinpanu, 2000, p.15)

Sheng and Kirinpanu described developer response as a form of ‘herd instinct’. It was ‘the business psychology of the country where “following the crowd” plays a powerful role in corporate decision-making’ and not only was this evident in the real estate sector but a mentality to ‘whatever may be in vogue’ (p.20). This was seen as a rationale behind the rapid construction of properties,

the increase in financing companies, as well as the purchasing of expensive private vehicles<sup>6</sup>. Larger listed firms were also locked into the mindset of perpetual building as they were also ‘forced to develop new projects despite market oversupply, because of strict regulations of the SET which required developers to maintain a sizable land bank’ (p.20).

What happened next was an oversupply of properties in Bangkok that contributed to the country’s economic crash in 1997. The period of ‘credit-driven boom’ (Renaud et al., 2001) led to overinvestment, inadequate supervision of financial institutions, and excessive borrowing from both local and foreign sources. Loans were no longer being repaid; foreign investment was withdrawn; housing units were becoming more difficult to sell. This, together with Thailand’s economic situation at the time that was staggering due to decreased exports as the country became richer, eventually led to a collapse of the local economy.

The local government’s relationship with lenders and real estate developers was identified as a contributing factor to the financial crisis (Sheng and Kirinpanu, 2000). Politicians were well-acquainted with bankers and large-scale developers became ‘important financiers’ to local political parties (Sheng, 2002). Policies and legislation launched were in favour of the private real estate. When real estate companies and financial institutions went insolvent, the government lent a hand in bailing out the firms. This created an ‘enabling environment’ for the real estate sector that made it difficult for rational decisions to be made (Sheng, 2002). Unwise investment decisions and the ‘unwillingness of the government and the Bank of Thailand to let real estate developers and financial institutions face the consequences of their decision’ were seen as the two major causes to Thailand’s 1997 financial crisis (Sheng and Kirinpanu, 2000, p.25).

Thailand has learnt its lesson from the 1997 crisis and ended up suspending 58 private finance companies (of which only two were later allowed to re-open) (Sheng and Kirinpanu, 2000). The

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<sup>6</sup> The start of Bangkok’s traffic problem has also been attributed to the period leading up to the 1997 financial crisis where the population with economic power at the time sought to purchase private vehicles. The city’s response was to build more roads to accommodate the increase in vehicles leading to detrimental consequences of congestion and air quality that has persisted to date.

Minister of Finance at the time was investigated for insufficient supervision of banks and finance companies. Regulations around property valuation and lending practices have since been revisited and strengthened. Nonetheless, the accentuated and unprecedented growth of the market economy coupled with regulations around landownership has left private land in the hands of Bangkok's most elite families.

From 1988 to 2011 it was statistically evident that the income of the country's 'top 1%' – the 600,000 – 700,000 people belonging to families that earn the most – were generated by 'businessmen, property owners, professionals and managers' (Phongpaichit, 2016, p.409). It was also found that 'only the top 1% derive a significant income from investments and rents'; the next 15% earned relatively small amounts from investment and property, while the bottom half of the income pyramid gained nothing from this source. That is 'half of all income from investment and rents is captured by the top 1% of the income pyramid' (ibid).

Phongpaichit (2016) refers to the works of Laovakul (2016) whose study further confirms the disparity in land ownership across the country (at a Gini Index of 0.88). Laovakul found that 'the top tenth of landholders [in Thailand] own 61% of all titled land. The bottom tenth own 0.1%. The biggest landholder has 100,000 hectares' (Phongpaichit, 2016, p.410). To date, it is estimated that 40% of the land across the country is privately owned (approx. 30 million hectares of the country's 51 million hectares).

The combination of government policies in favour of the elites, aristocratic landholding, and growing disparity in wealth (more specifically the capacity to save as income and expenditure gap widens) are major contributions to sustaining the country's inequity (see Phongpaichit, 2016). Since the mid-90s when development and growth became heavily concentrated in Bangkok, the country was seen as having 'no political interest or will to combat growing inequality' (Phongpaichit, 2016, p.408). Those in urban areas continued to reap the benefits of private development. The top of the pyramid is said to have been 'favoured by the state'



...through concessions, protection against competition, and various privileges which increase the level of rent in the system, because of the connections between these households and those in power resulting in policies and measures which reward, support, and maintain the mutual advantages of both parties ... by leveraging these advantages, in the long run they accumulate wealth, riches, property, land and various benefits clearly different from those lower down the pyramid.

Similar figures have been reported today with inequality in Thailand deemed one of the highest in the world (Bangkok Post, 2016; Lindsay, 2019). In 2018, the top 1% controls 66.9% of the country's total wealth (Bangkok Post, 2018a). Private land ownership continues to pose problems as the rural population still struggles to protest for their rights to agricultural land (Chandran, 2018; Wipatayothin, 2019).

Bangkok's rapid urbanisation in the mid-90s is a double-edged sword. On one hand, the city underwent a major transformation and accumulated a significant source of wealth from the neoliberal era through privatisation and the free market. On the other hand, there were unforeseen consequences that were left unaddressed, countering the trajectory for sustainable development that stems from this exact transformation. Landownership patterns and income generation from private properties have significantly contributed to the accumulation and disparity of the country's income generation and wealth, widening the gap between urban elites and the rural population. That is not to say that privatisation and the property sector are to be attributed as the sole causes to the 1997 financial crisis or today's income polarisation; it is acknowledged that there is a complex set of factors behind the workings of the economy. However, as evidence from history suggests, private property development and ownership have contributed significantly to these affairs, yet their implications have been restrictedly explored and discussed under this context.

The impact that property developers have on the built environment is vast and is not always considered in discourse and practice. With sustainable development growing as a prime agenda, there are paradoxical challenges in addressing sustainability under the capitalistic economic system that needs to be realised. These translate similarly to the case of private developers and sustainable

real estate. In examining developer behaviour in the context of sustainable practice, there are wider aspects of policy, decision-making, and cultural institutions to the nature of developer behaviour that needs to be considered.

## **Discussion**

This first part to the literature review sought to present an account of the concepts and understandings from the literature that relays the way developer behaviour is understood. The reflections draw on the understandings of private developer behaviour as economic agents in a capitalist society and as potential agents in advancing development and urbanisation. Land and capital are seen as two fundamental components in the development process. Regulating access to these resources make planning and economic policies a significantly important facilitator of development activity.

The literature suggests that there is a potential in utilising a ‘private-led but state-fostered’ agenda to further urban development activity. However, I contend that a closer inspection of this relationship would suggest that the agreement between the state and private developers in relation to their participation in the urban process can be rather dubious and even paradoxical, especially on the subject of sustainability. The dependent nature of the state on private developers to enhance the built environment and the reliance of developers on the state to incentivise their product complicates the shared outlook on responsibility. For example, who is ultimately responsible for the delivery of sustainable properties – is it the state through incentivisation? The market through a market transformation? Or the developers themselves through their own determinism?

This relational foundation resonates strongly in Cadman’s (2000) perspective on the ‘vicious circle of blame’ where he contends how the responsibility of constructing sustainable buildings is often displaced from one agent to another (in the model, developers dispose of their responsibility to the investor, and the investor reverts to the market, and so forth). Under a capitalist economy where companies’ primary responsibility is in the generation of shareholder wealth, responsibility for

sustainable practice diminishes – or may even cease to exist – provided its economic returns are unjustifiable.

The second part to the review discusses and reflects specifically on the context of capitalism in South East Asia and the influences of the capitalist system on private developer behaviour in Bangkok. Private landownership was only introduced to Thailand at the turn of the 18<sup>th</sup> century. This together with the country's flourishing economy in the latter half of the 20<sup>th</sup> century led to a period of property boom and eventual bust. The country's outdated lending policies and inadequate supervision of financial institutions led to the oversupply of properties that contributed to the country's financial crisis in 1997. Private developers – often family run ventures that are unaware of real estate risks and trends – contributed to the oversupply of properties.

While the country's economy managed to recover after the crisis, private land ownership remained with the urban elites. Up to 61% of private land is currently owned by the top 10% of landowners and the wealthiest 1% of the population continue to be the only group that derives significant income from rent (Phongpaichit, 2016). The gap between the country's rich and poor widened as a result of the free market and ownership of private properties. Private property development in Bangkok has since transitioned into an oligopoly, dominated by large-scale developers that maintain property as one of their many arms in business. These ventures are usually set up by the country's most elite Thai-Chinese families that became successful during the emergence of capitalism in South East Asia (Tipton, 2009). In 2018, it was reported that ten of the country's largest developers accounted for 59% of the value of units launched in the first half of the year; with the top five representing 39% of the total value (S. Pornchokchai, 2018).

Reflecting on the nature of private developer behaviour generally and within the specific case of Bangkok forms a foundational context to the findings that emerged from this study. **Chapters Seven to Ten** discusses and analyses the softer constructs of developers in light of this context, reflecting on the behaviour of top managers and corporate culture within Bangkok's largest

developer firms as well as the wider social and institutional norms that can be seen to juxtapose green building and sustainable practice.

The next section unpacks the understanding and conception of developer as organisations. More specifically, I hone into the theoretical underpinnings behind the softer constructs in organisational behaviour. Findings and constructs from the literature informs the proposed theoretical framework that underpins this study (**Chapter Three**).

\* \* \* \* \*

## **II. Developer Behaviour as Organisational Behaviour**

Part I to the literature review addressed the overarching patterns of developer behaviour and private property development. This section sets these understandings aside and dives into the second set of literature to explore the underpinnings and conception of organisational behaviour. The aim is to utilise these understandings to derive a comprehensive framework to convey – from an agency point of view – how and why developers behave as organisations.

The review is structured according to three groups of literature: *organisation theory*, *organisational behaviour*, and *corporate sustainability*. Organisation theory outlines the open systems model and explains how property developers can be conceived as open system organisations. The review draws on open systems theory as a starting point as this is where existing studies on property development have left off (see Hughes, 1989; Trevillion, 2002; Ho, 2014; Walker, 2015). The second group of literature on organisational behaviour looks at psychological constructs operating within organisations vis-à-vis perception and decision-making. I would later argue that this is missing from our current understandings of developer behaviour. The third on ‘corporate sustainability’ introduces literature from the studies of CSR and CE that serve to guide the investigation into specific psychological constructs pertaining to socially and environmentally

responsible practices to which I associate green building practice as being part of. Findings from the three sets of literature lead to the development of a conceptual framework that underlies the theoretical and empirical contributions of this research (**Chapter Three**).

Before presenting the review, it is important to address the breadth of organisational studies (see Hatch and Cunliffe, 2006; Mullins and Christy, 2016) and acknowledge some of the specific terminologies that may exist as jargon or used differently outside the area of study. *Organisation theory*, *organisational behaviour*, and *organisational psychology* mean and address completely different approaches of understanding how organisations behave. Whilst often used interchangeably, the frameworks that these groups of literature present are distinctive and not always used in combination. Much similar to how the term ‘sustainability’ entails a different set of frameworks to resilience, smart cities, urban ecology, these groups of literature maintain different theoretical underpinnings and foci while seeking to explain the same phenomenon.

Without discounting the extent to which these concepts overlap, I propose that the three branches of organisational literature (which can be seen to make up the bulk of organisational studies) can be explained in the following way:

- *Organisation theory* is the oldest branch out of the three with roots in sociology amongst other disciplines. It is primarily concerned with the analysis of organisational structure (arrangement of social units) and the relationship between the organisation and its context (known as the ‘external environment’). The open systems model, for instance, was developed to conceptualise this relationship. It does not acknowledge individual levels of psychology at work.
- *Organisational psychology* (also known as *industrial psychology*) evolved as a discipline from the works of psychologists. Organisational psychology focuses on addressing the behaviour of individuals at the workplace – how personality and individual behaviour affects decision-making and shapes organisational performance.

- *Organisational behaviour* draws on both models from organisation theory and organisational psychology to explain behaviour and performance. It is characterised as a multi-disciplinary and hybrid discipline that borrows ideas and insights from other established disciplines such as economics, political science, psychology, sociology, and anthropology to analyse the behaviour of organisations (Furnham, 1999; Hatch and Cunliffe, 2006; Mullins and Christy, 2016). Compared to the former two, organisational behaviour is seemingly a more comprehensive discipline.

The breadth and diverse set of literature in organisational studies suggest that there is no single ‘correct’ framework to explain the behaviour of organisations; it is thus necessary to select and justify an approach. For this research, I will be undertaking a theoretical position more contingent to organisational behaviour where my understanding of organisations and their behaviour is an amalgamation of constructs from open systems theory, organisational psychology, and organisational behaviour. I draw on and conceptualise developers as open system organisations, but further complement this with findings from literature that addresses the psychological constructs behind organisational processes and decision-making – dimensions that have yet to be fully explored in developer behaviour.

## **Organisation Theory**

This section introduces the theoretical foundations and constructs behind open systems organisations drawing primarily on the open systems model developed by Katz and Kahn (1966). While I acknowledge that the open systems model is not the only approach in organisation theory that explains the behaviour of organisations<sup>7</sup>, it is the only approach (to the best of my knowledge at the time of this writing) that has been empirically applied and used to analyse developer behaviour. That is not to say the research will continue to draw on this model in its entirety; I will broaden this existing scope of understanding by introducing other constructs from theories in

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<sup>7</sup> There is also, for instance, the *classical approach* that focuses on the effect of structures within organisations; the *human-relations approach* which focuses solely on the social dimensions within organisations as (e.g. behaviour of employees at the workplace); and the contingency approach, which builds on the systems approach (Mullins and Christie, 2016)

organisational behaviour and organisational psychology to demonstrate that there are other psychological constructs involved in rationalising the behaviour of organisations.

### **OPEN SYSTEMS THEORY**

Open systems theory first emerged in the 1950s. While its origins have been linked to a number of theorists, biologist Ludwig von Bertalanffy was one of the main founders of the theory with his works on General Systems Theory in 1951. His theory sought to explain the nature of all scientific phenomena across the natural and social sciences – from atoms, molecules, organisms, through to individuals, groups, and society. Also known as *systems thinking*, the fundamentals of the theory states that a *system* (defined broadly as a ‘thing’) is made up of interrelated parts (or ‘subsystems’) that affect each other. Being innately interdependent, each subsystem is dependent on and affects the system as a whole (Hatch and Cunliffe, 2006; see also von Bertalanffy, 1940).

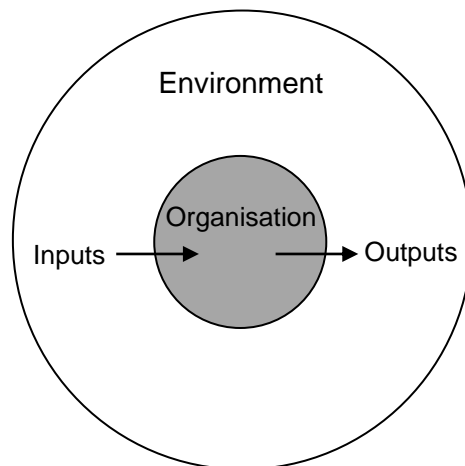
One decade later, organisational theorists began applying the systems approach to the context of organisations. Amongst the first were American psychologist and social scientist Daniel Katz and Robert Louis Kahn who published their theory in the influential book *The Social Psychology of Organisations*. Katz and Kahn (1966) viewed organisations as open social systems, where organisational processes are informed through the interdependent nature between the organisation and its contextual environment. The theory was radical for its time as it contradicted much of what classical organisation theory proposed: that organisations are closed entities and autonomous in nature.

The open systems model conceptualises organisations as a system that functions through a continuous cycle of input, throughput, and output. Its process is described as cyclical interaction between the organisation and its external environment, as explained by Katz and Kahn (1966):

Organizations as a special class of open systems have properties of their own, but they share other properties in common with all open systems. These include the importation of energy from the environment, the throughput or transformation of the imported energy into some product form that is characteristic of the system, the exporting of that product

into the environment, and the reenergizing of the system from sources in the environment (p.33)

Hatch and Cunliffe (2006) visualises open system organisations in the form of a more modernised conceptual model (**Figure 2**). Here, the organisation is shown as a subsystem embedded within a larger system that supplies its resources and absorbs its output. The entity that lies outside the boundary of the organisation is referred to as the *external environment* – i.e. the context outside the organisation that it is operating under. To put this in simple terms, the organisation can be conceived as an entity that receives input from its surrounding context; processes these inputs; and delivers them in the form of a product (goods, services) back into the external environment.



**Figure 2** *The organisation in its environment*

*Source: Adapted from Hatch and Cunliffe (2006)*

The open systems approach to understanding organisations has been applied to a wide range of disciplines; and while there is extensive literature on open systems and construction management (see Walker, 2015), less can be said for property research. To the best of my knowledge, there are only a few studies in property development that have applied an open systems framework. These include Trevillion (2002) on *Systems Theory and the Commercial Development Process* where the property market is conceptualised as a dynamic open system composed of various interdependent components (stock, yield, profit etc.), and Ho's (2014) exploratory study on the impact of



organisational environments on property developers in Hong Kong. In Ho (2014), the developers themselves are conceptualised as open system organisations.

The two studies mentioned above illustrate how the open systems framework can be applied in various ways to analyse the behaviour of the property developers and the real estate industry. For this research, I adhere to Ho's interpretation and propose that property developers – as business organisations – can be conceived as open system organisations. This idea follows through from the earlier definitions of property developers (see **Chapter One**) and corresponds to Katz and Kahn's (1966) open systems theory. If property developers are open system organisations, the property development process can be recognised as an input-transformation-output process where developers receive inputs from their external environment, process these inputs, and deliver outputs in the form of developed properties; the characteristics of the developed properties inherently reflecting the conditions established in their external environment.

## **ORGANISATIONAL ENVIRONMENTS**

Open systems theory brought forward a radical change to the understanding of organisations. Classical approaches in organisation theory conceived organisations as closed systems or autonomous entities. Open systems view organisations as open and adaptive; an entity that responds to change in its external environment (Katz and Kahn, 1966). As a result, literature on open systems has paid great attention to explaining characteristics of the external environment and how it affects behaviour of organisations.

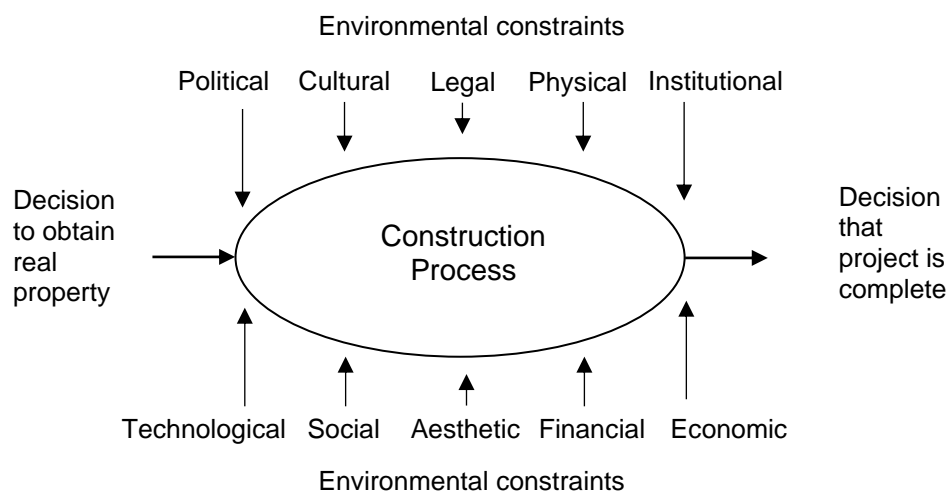
Katz and Kahn (1966) identified five sectors within the external environment that can influence the organisation. These sectors interact interrelatedly as well as collectively towards the organisation:

- The *societal environment* which refers to types of social and cultural influences;
- The *political environment* referring to the political or legal constitutions;
- The *economic environment* shaped by financial and labour markets or other capital strategies and systems;

- The *technological environment* referring to scientific and technological advancement in the context that the organisation operates; and
- The *physical environment* referred to as the condition and availability of natural resources.

These five environmental sectors are said to be in a constant state of flux; changing and increasing in complexity. This is known as *environmental turbulence* – the degree of changes in the external environment that occur as a result of increased complexity between the interdependent sectors (Emery and Trist, 1965; Katz and Kahn, 1966). Turbulence subsequently leads to degrees of *environmental uncertainty*, described as the perceived inability to predict events and changes (Milliken, 1987). Uncertainty causes delay or lack of response in open system organisations, affecting organisational choices (ibid) and decisions (Pettinger, 1996). Uncertainty is referred to as one of the main constructs that explain the relationship between the organisation and its environment (Lawrence and Lorsch, 1967; Milliken, 1987).

Factors that influence building construction and property development can be similarly placed in accordance with these five environmental sectors. Hughes (1989), for example, identified ten variables surrounding construction projects that conform to the five sectors (**Figure 3**).



**Figure 3** Environmental influences in the construction process

Source: Adapted from Hughes (1989)

Social and cultural factors (referring largely to community acceptance) reflects Katz and Kahn's (1966) *societal environment*; political and legal reflects the *political environment*; economic and financial the *economic environment*; technological constraints as the *technological environment*; and physical and aesthetic factors as part of the *physical environment*. Ho (2014) similarly identified a number of contextual factors that impact property developers which coincide with Katz and Kahn's economic, physical, and social environments. Barriers in green building practice (introduced in **Chapter One**) can also be positioned and grouped according to the five environments outlined by Katz and Kahn.

The similarity between behaviour of property developers and open systems is even more evident when it comes to explaining the concept of uncertainty. In property development, literature on risk assessment explores the notion of uncertainty. Khumpaisal and Chen (2010) define risks in real estate development as generated by uncertainty and changes in the environment. They derived an interdependent framework for risk assessment in real estate that reflects exactly the five environmental sectors deduced by Katz and Kahn. The work of Khumpaisal and Chen resembles many more risk management studies in property development (see Fisher and Robson, 2006; Gehner et al., 2006; Roberts and Henneberry, 2007; Loizou and French, 2012).

It is through the extensive literature paralleling the work of Katz and Kahn's (1966) that substantiates how property developers and their behaviour are akin to open systems, with their external environment reflecting the five environmental sectors. It is, however, important to bear in mind that there is no single or prescriptive way to identify components in the external environment (Hatch and Cunliffe, 2006). This is contingent on the level of analysis sought by the researcher; in theory, the external environment depicts any entity outside the boundary of the organisation thus making the scope of the external environment definable in a myriad of ways. Katz and Kahn's (1966) five sectors of environments is chosen for this research as it has been proven to effectively categorise the multitude of factors in building construction and property development outlined in the existing literature.

## ENACTMENT THEORY

The pairing of open systems theory to property development has appropriated the way developers can be studied and conceptualised as open system organisations (see Hughes, 1989; Trevillion, 2002; Ho, 2014; Walker, 2015). In accordance with open systems theory (Katz and Kahn, 1966), it can be inferred that the way developers behave are contingent upon the five sets of factors in their external environment (economic, social, political, technological, physical). However, open systems theory is merely one facet to understanding the behaviour of organisations. As outlined in the early parts of this chapter, *organisation theory* (where open systems theory lies) is merely one branch of organisational studies. Maintaining an open systems perspective alone limits the understanding of behaviour as it does not account for other internal constructs that have shown to be relevant in shaping behaviour of organisations.

One way to transition into the next set of literature on organisational behaviour and illustrate how psychological constructs are equally powerful forces that shape the way organisations behave is to consider Weick's (1969) theory on *enactment*. Thereafter Katz and Kahn's publication on *The Social Psychology of Organizations*, American social psychologist Karl Weick published his book on *The Social Psychology of Organizing*. What Weick proposed was a radical change to the understanding of organisation-environment relations whereby cognitive processes were underscored. Weick's theory made human cognition relevant to the behaviour of organisations (Starbuck, 2015).

In Weick's model, organisations are seen as socially constructed entities that undergo constant change (i.e. are in a constant process of 'organising'). The view can be summarised more concisely as framing the nature of organisations to be composed of human perceptions and interpretations (Starbuck, 2015). Organisations are seen as information-processing systems that evolve through the exchange and sharing of information (Bantz, 1989; Starbuck, 2015). This information is interpreted, exchanged, and selectively retained by individual members within the organisation that are then shared collectively through continuous processes of interaction. The use of the term 'enactment' represents how organisations are *enacted* through these interactions (Babson College,

n.d.). In Weick's view, organisations are socially constructed and reified by its members. Thus, the condition of the external environment cannot be separated from the *perception* of what it is or what it should be as it remains a socially constructed reality.

While Weick perceived cognitive cues and perception as central to the behaviour of organisations, perception was not attributed to individual behaviour. His works take on a social psychological perspective (Babson College, n.d.) that builds on Berger and Luckman's (1966/1991) theory on the social construction of reality (Hatch and Cunliffe, 2006). It was the discipline of organisational behaviour and organisational psychology that contributed to the analysis of organisations and their psychology at individual levels (see Furnham, 1999; Robbins and Judge, 2014). Organisational psychologists, concerned with behaviour of individuals within an organisation, study the perception, personality, motivation, and its effect on decision-making, behaviour and performance (Robbins and Judge, 2014). These psychological components (and its application to the function of individual and group behaviour) together with the foundations of open systems theory is how the discipline of *organisational behaviour* can be comprehensively understood. Robbins and Judge (2014), for instance, defines organisational behaviour as an applied behavioural science that studies the influence that 'individuals, groups, and structure' have on the behaviour of organisations.

It is to this end that I postulate how the understanding of organisational environments as sole determinants is only one dimension to the behaviour of organisations. More specifically, what is missing from this understanding are the human dimensions and aspects of influences from *individuals* within the organisation. In the next part to this chapter, I introduce three constructs embedded in individual and group behaviour that are frequently discussed in organisational behaviour literature: *individual perception*, *leadership*, and *organisational culture*. These, I argue, are some of the main psychological constructs emphasised in the literature that may be overlooked as they have shown to be less prominent in our current understandings of developer behaviour.

## Organisational Behaviour

The section on *Organisation Theory* presented an overview of the literature on organisation theory and open systems organisations; how behaviour of organisations is significantly influenced by their external environment. In this section, I dive further into a few of the main psychological constructs explored in the disciplines of organisational behaviour and organisational psychology, namely *individual perception* and its influence on decision-making, organisational leaders and *leadership*, and *organisational culture*.

### PERCEPTION

A significant part of organisational behaviour is dedicated to understanding the behaviour of individuals and how they contribute to the function of an organisation. The literature addresses the role and behavioural characteristics of individuals within organisations that contribute to how the organisation behaves and performs. Part of that involves the notion of perception and its influence on decision-making (Robbins and Judge, 2014; Mullins and Christy, 2016). *Perception* is said to be one of the most important attributes of individual behaviour which shapes organisational response. It is seen as ‘the root of organisational behaviour’ (Mullins and Christy, 2016, p.182); as Robbins and Judge (2014) denotes how ‘the world as it is perceived is the world that is behaviourally important’ (p.106).

Much similar to what Weick’s enactment theory asserts, this significance of perception in organisational behaviour rests on the assumption that ‘people’s behaviour is based on their perception of what reality is, not on reality itself’ (Robbins and Judge, 2014, p.106). Under this postulation, each individual selectively perceives and forms their own interpretation of conditions in the external environment. As Mullin and Christy (2016) explain:

We all have our own, unique picture or image of how we see the ‘reality’ of the world around us, and our own way of looking at and understanding our environment and the people within it... We do not passively receive information, we analyse and judge it, and place significance on certain information and disregard other information as worthless. We may also be influenced by our expectations so that we perceive what we expect to

“see” or “hear”. A situation may be the same, but the interpretation of that situation by two individuals may be vastly different (p.182).

Thus, the impact that perception has on decision making is vast. Individuals make decisions, but the quality of their choices are shaped by their own perception and biases (Robbins and Judge, 2014). Take for example the theory of *bounded rationality* (Simon, 1990; 1957) which sees human’s cognitive capacity as limiting the generation of optimal solutions or theories on decision-making that addresses different forms of individual biases in relation to how we view and perceive information (see Robbins and Judge, 2014, **Chapter Six**). The way individuals interpret the external environment collectively constrain the organisation’s ability to make rational decisions.

Differences in perception are said to be rooted in individual characteristics and traits. An individual’s attitude, ability, motivation, past experiences, expectations, interests, are referred to as examples of characteristics that shape an individual’s perception of their surrounding environment (see Furnham, 1999; Robbins and Judge, 2014; Mullins and Christy, 2016). Whilst this is not an exhaustive list, these qualities can be largely summarised as reflecting the mentality, mindset, or outlook of the perceiver. Mullins and Christy (2016) refer to these groups of factors as an *individual’s perception set*; described as internal factors that ‘give rise to an inclination to perceive certain stimuli with a readiness to respond in certain ways’ (p.185).

These differences in outlook resonate with the works of Coiacetto (2000; 2001) on diversity in developer behaviour – how differences in developer characteristics inform different actions and strategies for development. Coiacetto contends that property developers are not homogenous, and most works on developer behaviour fail to acknowledge this. Of those that do, diversity in developer is often attributed to differences in context (financing, legislative, geography, history, place-based characteristics, spatial arrangements, etc.) as opposed to perceptual differences of individuals within the developer firm. It was only more recently that publications began to address notions of perception (amidst other psychological factors) as shaping development strategies. For example, Hoffman and Henn (2008) on the psychological barriers that inhibit environmental

progress in building design and construction, and Ho (2014) whose study shared a similar understanding that the development process is driven by decisions and actions that reflect the developers' character, behaviour and 'how they make sense of the environment' (p.230). Wilkinson and Sayce (2015) on sustainable property development similarly posit that the way property developers – as well as other key stakeholders such as architects, designers, building users, owners, and policymakers – conceptualise sustainability will collectively impact the way they seek to pursue sustainable building and construction.

## **LEADERS AND LEADERSHIP**

The previous section explored concepts of individual perception and outlined how individual differences (e.g. personality, attitude, and values) can lead to distinct perceptions of the external environment, and in turn diversity in organisational responses. However, organisations are not composed of a single individual but are comprised of a collective group of individuals. In light of this, organisational behaviourists are equally concerned with the psychological processes that take place within groups in organisations. This has led to the identification of other psychological constructs that pertain to group behaviour, including leadership and organisational culture.

The role of leaders and leadership has been extensively studied. Amid various definitions, a significant part to the definition of leadership is,

the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives (Yukl, 2013, p.23).

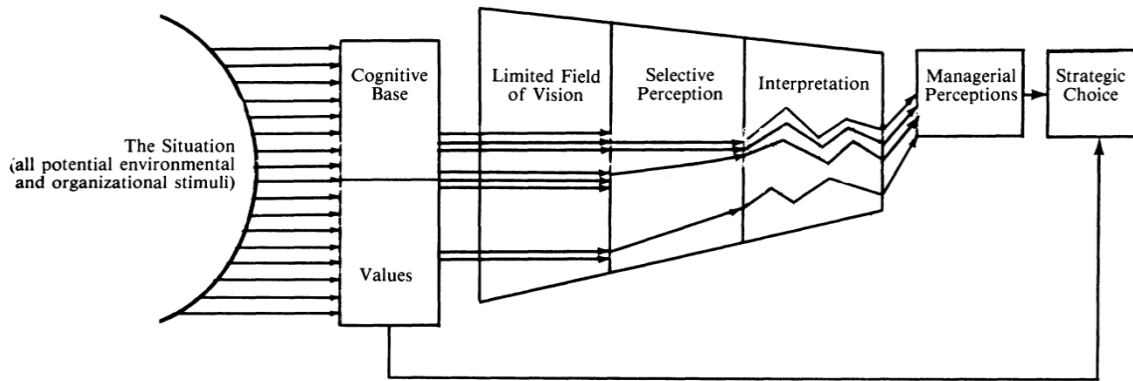
This notion of leadership 'influence' is two-pronged. First, leaders influence the outcome of organisational decisions and strategies through their authority and position in the firm. Second, leaders influence the creation and retention of values within the firm that lead to normative and accepted standards of behaviour. In light of the former, Mintzberg (1973) on the taxonomy of managerial roles identified three categories of managerial activities: *information-processing* (roles include disseminator, monitor, and spokesperson); *decision-making* (roles include entrepreneur, disturbance handler, resource allocator, and negotiator); and *interpersonal* (include acting as a



liaison, figurehead, and leader). What can be deduced from Mintzberg's taxonomy is that organisational leaders (e.g. top managers, executives) are able to extensively shape the way information is disseminated, processed, and utilised within the firm.

In relation to creating and retaining shared values in organisations, leaders create standards of behaviour that are acceptable to the group known as *norms* (Robbins and Judge, 2014) that dictate choices and decisions. All groups have established sets of norms that act as mediators to determine the overall behaviour of the group. These norms are said to be created and maintained over time by the organisation's founders and sustained through subsequent leaders. Norms reciprocally influence and shape an organisation's culture (more on organisational culture will be discussed in the following section). Contemporary theories on leadership have also addressed the emotional and symbolic aspects of leadership (Yukl, 2013). Theories on *charismatic* and *transformational leadership*, for instance, explore how leaders 'inspire and transform followers by appealing to their ideals and emotions' (ibid, p.301). Such theories address how leaders not only inspire their followers at work but contribute to the development of ideas that are adhered to beyond the workplace (see Bass, 1999; Yukl, 2013; Robbins and Judge, 2014).

Whether the type of influence that organisational leaders assert is in the form of inspirational visions or authoritative decisions, they are said to be a product of the leader's individual values, characteristics, and perception. Hambrick and Mason's (1984) publication titled *Upper Echelons: The Organisation as a Reflection of Its Top Managers* exactly conveys this. In their paper, Hambrick and Mason contend that organisational outcomes (defined more explicitly as strategies and effectiveness) can be 'viewed as reflections of the values and cognitive bases of power actors in the organisation' (p.193). They proposed a model of how individual characteristics of top managers reflect strategic choices of the organisation under conditions of bounded rationality (**Figure 4**).



**Figure 4** Strategic choice under conditions of bounded rationality

Source: Reproduced from Hambrick and Mason (1984)

The model conceptualises the influence of individual characteristics as a ‘filter’ that distorts the decision-maker’s perception of external stimuli, subsequently leading to selective perception and interpretation of the external environment that informs an organisation’s strategic choice. Hambrick and Mason explain how each decision-maker brings their own set of ‘givens’ to an administrative situation. These ‘givens’ reflect the decision-maker’s individual *cognitive base* and *values*. Cognitive base defined as the knowledge or assumptions about future events, knowledge of alternatives, and consequences attached to alternatives; values as principles behind the preference over the order of these alternatives and consequences. Ultimately, these cognitive bases and values cause selective perception and interpretation of conditions in one’s external environment.

The arguments and constructs studied in the literature on notions of leadership demonstrate the breadth of influences that leaders – as individuals – have on the organisation and members within it. Whether it is through formal authority or the creation of shared values and norms, leaders facilitate the accomplishment of tasks in an organisation as well as *how* the tasks are approached. Most importantly, these influences are often defined by the leaders’ own individual characteristics and constructs, including their worldviews and how they perceive conditions in the external environment.

## ORGANISATIONAL CULTURE

Organisational culture is extensively studied and similarly addresses the influence of shared values on behaviour of organisations. Compared to the theories on leadership that focus on what leaders as individuals bring to the group, the influence of culture rests on the dynamics of group behaviour and rather conversely, explore how group behaviour moderates the way individuals behave.

The term organisational culture has been defined in a multitude of ways. At large, it can be seen to encompass characteristics such as attitudes, beliefs, values, norms, and philosophies that shape the behaviour and outlook of the organisation as well as its members (Schwartz and Davis, 1981; Brown, 1995; Pettinger, 1996; Alvesson, 2013). Organisational culture has been addressed as a set of mechanism that moderates the consistency of behavioural pattern among individuals within the organisation (Scholl, 2003; Dalkir, 2005), described as an ‘...implicit, invisible, intrinsic, informal consciousness of the organisation’ (Scholz, 1987, p.80).

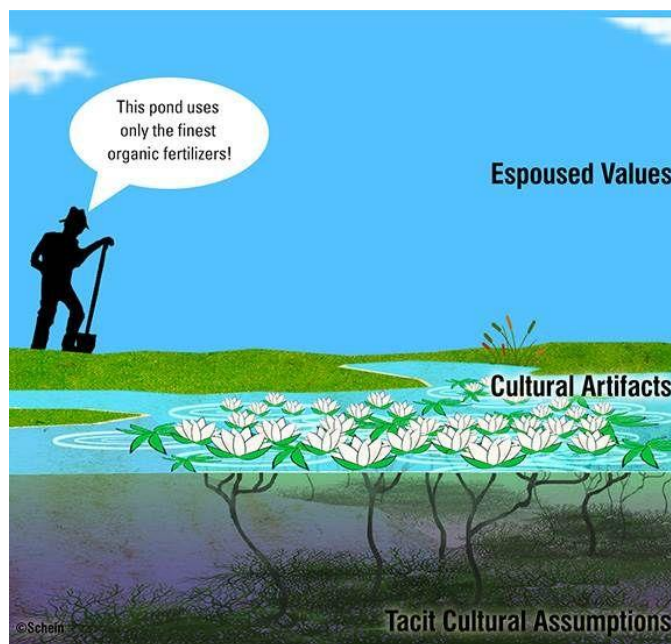
It is important to acknowledge that the origins of organisational culture as an area of study are diverse; its roots can be traced back to disciplines such as sociology, anthropology, and social psychology (Brown, 1995; Furnham, 1999; Robbins and Judge, 2014). Thus, emphasis on the characteristics and definitions of culture may deviate according to the different fields of study. This research draws closer to the works of American social-psychologist Edgar Schein and his definition and model of organisational culture. Schein (2017) maintains a social-psychological approach to examining organisational culture to which his work has been widely incorporated in the discipline of organisational behaviour (see Robbins and Judge, 2014; Mullins and Christy, 2016). By adhering to Schein’s model, the research would benefit from the continuity in analysing culture through a psychological perspective that fits appropriately with the cognitive frameworks of perception and leadership introduced earlier in this chapter.

Schein (2017) defines culture as the accumulation of shared learning that has evolved over time to form patterns of beliefs, values, and behavioural norms. These patterns oversee how a group behaves and undertakes tasks. Schein defines culture as follows:

The culture of a group can be defined as the accumulated shared learning of that group as it solves its problems of external adaptation and internal integration; which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, feel, and behave in relation to those problems (p.6).

Per this definition, the influence of culture acts as ‘sense-making and control mechanism’ that guides and shapes the attitudes and behaviour of members in an organisation (Robbins and Judge, 2014). It influences perception, thought, feelings and behaviour through a developed sense of shared identity – ‘a way to think, and a way to feel’ (Schein, 2017, p.9). Robbins and Judge (2014) describe culture as ‘the social glue’ that holds the organisation together by ‘providing standards for what employees should say and do’ (p.277).

Schein (2017) postulates that an organisation’s culture is much more complex to decipher than what may be visibly observed (e.g. policy, conduct, services). In explaining this he used the ‘lily pond metaphor’ to illustrate how culture exists at three different levels (‘level’ denoting the degree to which that cultural phenomenon is visible to the observer) (**Figure 5**).



**Figure 5** Lily pond metaphor: the three levels of culture

*Source: Reproduced from Schein (2017)*

The most observable level is the blossoms and leaves on the surface of the pond described as the visible *artefacts* – cultural phenomena that can be seen, heard, and felt. This level of culture

consists of products and behaviour that we are able to see and evaluate – e.g. visible phenomena such as the architecture/arrangement of the physical work environment; language; offered technology and products; artistic creation and style; dress code at work; published lists of values and any other observable behaviour of a particular group.

At the mid-level are the *espoused values* and beliefs. These are illustrated above the pond as an allegory to denote the values and beliefs that leaders (the farmer in the metaphor) announces and advocates the group. Schein believed a group begins to learn through the reflection of someone's original beliefs and values (i.e. the leader) – their sense of what ought to be done. Over time, through shared learning and accumulated success, these beliefs and values develop into a common reference of action for the group. The espoused values level of culture is shaped in the form of ideals, goals, values, and aspirations that are articulated to serve as a norm in guiding the behaviour of new and existing members.

The last level beneath the surface of the pond lies the *tacit cultural assumptions*. These make up what Schein terms more explicitly as the 'taken-for-granted' assumptions. They represent certain understandings that the group has developed over time until they have become an unquestioned form of reality (i.e. something that they believe 'really works this way' without question (Schein, 2017, p.21). Thus, there will be little variation within a social unit as any behaviour outside of the norm would be deemed as 'inconceivable'. An example would be engineers taking for granted that the design they develop has to be safe; deliberately designing something unsafe would be inconceivable.

Under these descriptions, the influence of culture on the behaviour of an organisation is similar to that of leadership. They represent an embodied set of values that attribute normative and acceptable standards of behaviour that shape the way members perceive and interpret the external environment (see also Brown, 1995; Pettinger, 1996).

## NORMS AND PSYCHOLOGICAL CONTRACTS

Coined and popularised by Rousseau in the late 90s is the idea of *psychological contracts* (also *Psychological Contract Theory*). Her works on organisational behaviour closely examine what she terms as ‘unwritten agreements’ within individuals and the organisation. Rousseau (1995) postulates that traditional employment contracts are often ‘incomplete’ and result in ‘self-organising’ responses. Written contracts detail expectations and obligations of the employee and the employer, but face issues of bounded rationality and changing organisational environments that ultimately requires both parties to ‘fill in the blanks’ (p.1). In developing and understanding organisational behaviour, Rousseau’s work prominently considers and bridges the duality between the role of individuals, their engagements with the organisation, and the function of culture in the form of group dynamics and norms.

Rousseau (1995) posits that there are four types of contracts inherent to organisational behaviour (‘contract’ defined here as ‘the belief in obligations existing between two or more parties’, p.6). The four contracts stem from four different vantage points: perspectives of individuals within, perspectives of individuals outside of the organisation, and both these perspectives at individual and group levels (**Figure 6**).

		Level	
		Individual	Group
Perspective	Within	<p><b>Psychological</b> Beliefs that individuals hold regarding promises made, accepted, and relied on between themselves and another (employee, client, manager, organization)</p>	<p><b>Normative</b> The <i>shared</i> psychological contract that emerges when members of a social group, organization, or work unit hold common beliefs</p>
	Outside	<p><b>Implied</b> Interpretations that third parties make regarding contractual terms</p>	<p><b>Social</b> Broad beliefs in obligations associated with a society’s culture</p>

**Figure 6** Types of contracts

Source: Adapted from Rousseau (1995)

For individuals within the organisation – e.g. an employee or a manager within the organisation – their obligations to the organisation can be conceived in the form of a *psychological contract*. This represents the individual's perception of their commitment to the organisation and is usually based on customs and past practices. On a group level, psychological contracts are shared among members and become what Rousseau terms as *normative contracts*. Normative contracts represent shared values and beliefs that create social pressure for individuals to conform to dominant forms of practice within the organisation. Rousseau defines this form of social pressure as 'institutionalising the contract as part of the shared culture of the organisation' (p.11).

For individuals outside of the organisation – e.g. third parties that engage with the organisation – there is an *implied contract*. This represents a mutual obligation characterising a dyadic, interunit, interorganisational relationship that gets carried forward to the organisation's public image and reputation (see also Rousseau, 1989). On a group level, these perspectives translate to *social contracts*. Social contracts represent the collective beliefs of individuals outside of the organisation that shape the wider culture in which acceptable and appropriate behaviour is informed. Rousseau defines social contracts as 'derived from the values of the larger society' through which these norms affect the 'nature' and 'interpretation' of commitments and promises.

The four types of contracts outlined by Rousseau resonate with the concepts and frameworks outlined by Schein and Weick on organisational culture and individual perception. Rousseau's *Psychological Contract Theory* bridges these understandings by proposing that it is the combination of both individual psychological constructs and group psychology that works concurrently to inform organisational response. Her framework envisions these psychological constructs in the form of 'unwritten agreements' that bind the individual to the firm (i.e. psychological contracts). It is these shared psychological contracts that are retained to form part of the culture of the organisation (i.e. norms). In the analysis and discussion presented in later chapters, I will refer back to Rousseau's concepts of psychological contracts, normative contracts, and social contracts to describe and reflect on some of the implications that these constructs may have on sustainable practice in the context of private developers and private property development.

## **Corporate Sustainability**

Following the two bodies of literature on open systems theory and organisational behaviour, this final section introduces a third set of literature that probes into the determinants behind sustainability and environmental practice in organisations. The section specifically draws on two constructs that have been prominently addressed in the existing literature and in practice – *corporate social responsibility (CSR)* and *corporate environmentalism (CE)*. A review of the literature shows that determinants of CSR and CE have been studied in relation to conditions in the external environment as well as characteristics of leadership which echoes some of the constructs introduced in the earlier sections.

### **CORPORATE SOCIAL RESPONSIBILITY**

The concept of CSR has its origins since the 1950s and has since been used by many business organisations to demonstrate their commitment to responsible practice (Carroll, 1999; 2008; Scherer et al., 2009). CSR as a practice has been adopted by various industries including property development and real estate, where it has been attributed to fostering and facilitating responsible organisational and sustainable practices (see Ang and Wilkinson, 2008; Wilkinson and Reed, 2008; Yam, 2012; Wilkinson and Sayce, 2015).

Despite its widespread adoption, there is no universal definition of CSR (Green, 2009; Murray and Dainty, 2009; see also Dahlsrud, 2008). The way that CSR has been addressed in practice varies across industries and national contexts (Chapple and Moon, 2005; Matten and Moon, 2008). Bearing in mind that different regions may also represent different political philosophies, the complexity in generating a universal understanding of the term stems from the challenge of agreeing on the scope of responsibility that satisfies the interests of the range of actors and institutions involved (see Sheehy, 2015). However, amidst the multitude of understandings, it can be agreed that CSR fundamentally represents an organisation's means of addressing of social and environmental issues 'beyond minimum legislative requirements' (see also Gamerschlag et al., 2011):



[Definitions of CSR] all allude to the need for respect for communities and/or stakeholders, the need for awareness of social, economic and environmental impacts and they all emphasise the alignment of business objectives with societal goals in a way that goes above and beyond minimum legislative requirements' (Murray and Dainty, 2009, p.7).

CSR represents the accountability of business firms; it portrays the firms' assertiveness in addressing the responsibility they have on the community and the natural environment. It is seen as self-regulation within the industry (Lessen et al., 2008; Fontaine, 2013; Steurer, 2013) as it is based on voluntary compliance. Steurer (2013) explains the practice of CSR as businesses widening their 'short-term profit-making focus' to incorporate social and environmental concerns (p.391). The incorporation of CSR into business practices has been attributed to serving organisational legitimacy as well as safeguarding the organisation from sustainability risks (see e.g. Kurucz et al., 2008; Carroll and Shabana, 2010). These studies have also found that CSR practices can help make firms more profitable.

There are various approaches to the conduct of CSR; firms may choose to conduct philanthropic activities, integrate social and environmental strategies into their existing operations, disclose their environmental performance, or come up with innovative business models that enable their businesses to help solve social and environmental problems (see Steurer, 2013; also Matten and Moon, 2008; Wilkinson and Reed, 2008; Said et al., 2009; Gamerschlag et al., 2011; Srisuphaolarn, 2013; Ali et al., 2017). In the context of property development, CSR has been used to address a developer's commitment to develop property more sustainably and can also influence how developers seek to operate and manage their properties (Wilkinson and Reed, 2008; Wilkinson and Sayce, 2015).

While the concept and basis of CSR offers promising prospects for private firms to contribute to sustainable practice, an extensive review of the literature is indicative of how the current political economy arguably delimits the true meaning of CSR. CSR struggles to effectively find a place in a capitalist economy where it remains a voluntary practice instead of a requirement (i.e. a form of self-regulation). In a similar manner to how 'sustainability' can be viewed from the weak or strong

sustainability perspectives (see **Chapter One**), the extent to which firms are obligated to set aside resources for social or environmental practices is open to interpretation. This boils down to the contentious interpretation of the boundaries of corporate responsibility – i.e. to what extent are businesses responsible for the wider society and environment? *Who* are firms responsible for? Theoretical foundations and public response to CSR have deviated over time according to changes in the global socio-political context (Carroll, 1999; Green, 2009). I argue that this has been further challenged by the political and economic landscape during the neoliberal era. To fully convey the nature of CSR and what it has become, it is thus necessary to provide a historical overview of the concept itself.

The origins of CSR can be traced back to as early as the 1940s when its constructs were first conceived under the terms of '*social responsibility*' (see Clark, 1939 and Kreps, 1940 cited in Carroll, 1999; Green, 2009). Social responsibility emerged following the period of the Great Depression as a concept that addressed the 'social control' of for-profit businesses when Keynesian economics was at its high. The concept served as a reminder to urge businesses to take societal benefits into consideration (Carroll, 1999). A decade later in 1953, American economist Howard Bowen coined the term 'Corporate Social Responsibility' in his seminal publication the *Social Responsibilities of the Businessman* that marks today's modern understanding of CSR (Carroll, 1999; Green, 2009). Bowen (1953) reiterated the constructs behind social responsibility by addressing the moral and ethical behaviour of businesses towards society, building up rhetoric behind the extent to which businesses should assume social and environmental responsibilities beyond legal obligations. The concept of CSR gained momentum throughout the 1960s, but this deteriorated by the 1970s.

The 1970s saw the introduction of stakeholder theory, causing many to question the theoretical foundations and consequently the legitimacy of CSR. Stakeholder theory prompted the reconsideration of the scope and definition of the term 'stakeholders'. Schools of thought divided; some conceived 'stakeholders' more widely as *any* group or individual affected by the organisation, while others opted for a narrow definition that takes into account only those that the firm depended

on for survival (Green, 2009). This led to numerous debates around the foundation of CSR, where some believed that business firms were already fulfilling their ‘social responsibility’ by generating profit for their shareholders. Under this paradigm, any charitable giving of profit for other purposes – i.e. philanthropic – may be seen as a misuse of the shareholders’ money (Buchholtz et al., 1999).

The 1980s saw extensive promotion and an increase in privatisation and globalisation of businesses (what many refer to as the rise of the ‘enterprise culture’). Firms became more interested in short-term performance and capital growth together with a landscape that encouraged entrepreneurial activity. Profit maximisation became a key objective for most firms; so much so that some even argued that the use of corporate resources for causes other than profit maximisation can be constituted as ‘theft’ (see Friedman, 1962; see also in Carroll, 1999; Carroll and Shabana, 2010). Under this paradigm, efforts that sought to regulate or enforce CSR could be seen as an ‘anathema to the enterprise culture’ (Green, 2009, p.49). The contentiousness of the boundaries and scope of corporate responsibility has thus resulted in CSR being maintained as a voluntary standard.

CSR has been widely implemented within sustainable business practice, however, approaches to CSR and the rationale behind its uptake still warrant further investigation. Studies that investigate companies’ adoption of CSR have either explored the company’s effort as a response to the conditions in the external environment (e.g. global or national socio-political context, institutional culture, market factors) or related it back to the firm’s internal characteristics and management (e.g. values, ethics, organisational climate) (see Porter and Kramer, 2006; Matten and Moon, 2008; Angus-Leppan et al., 2010; Carroll and Shabana, 2010; Fontaine, 2013). Determinants of CSR have been tied to personal values and the ethical and moral stances of leaders (see Waldman et al., 2006a; Waldman et al., 2006b) that can be connected back to theories on leadership.

### **CORPORATE ENVIRONMENTALISM**

A second concept found in organisational studies that similarly denotes sustainable practice in business firms is that of *corporate environmentalism (CE)*. The concept of CE followed CSR and slightly deviated from CSR as it was prominently concerned with the environmental dimensions

of sustainable business practice. In the existing literature, CE has been mostly applied as a framework to study industry sectors with high environmental impact (e.g. manufacturing, chemical industry, pharmaceuticals, petroleum industry, utilities – see Hoffman, 2001; Banerjee et al., 2003).

Banerjee (2002) defines CE as ‘the recognition and integration of environmental concerns into a firm’s decision-making process’ (p.177). Its historic roots have been traced back to the 1960s, soon after Rachel Carson’s (1962) seminal publication of *Silent Spring* which encouraged industries to take environmental matters into their own hands (Hoffman, 2001). U.S. oil and chemical industries were among the first to respond to the environmental movement and began to introduce technical solutions and environmental strategies into their organisational processes. The firms’ adoption of CE is thus a product of change within the socio-political landscape. Hoffman (2001), however, contends that it is not total external determinism: organisations are influenced by conditions in their external environment but at the same time are responsible for affecting those conditions. In the case of CE, firms’ adoption of environmental practice may be influenced by its institutional context, but the firm itself has autonomy where its actions affect the creation of these institutions. As stated,

The firm cannot be viewed in isolation, free from the influence of its external environment; but conversely, it is not totally powerless in influencing the state of that environment. Its internal structure and environmental practices are a reflection of the prevailing institutions of the organisational field, but the firm can act with a degree of self-interest in affecting the development of these institutions (Hoffman, 2001, p.9).

In line with Hoffman’s contention, empirical studies on antecedents of CE are found to be an amalgamation of variables that denote the environmental values within the firm, its members, alongside factors in the external environment. Banerjee et al.’s (2003) study of CE in North American firms deduced that it was the interplay of external socio-political constituencies (public concern, regulatory forces, competitive advantage) together with the environmental commitment of top managers within the firm that influenced the adoption of CE. Environmental commitment of top managers has been identified as the most influential antecedent, directly influencing the firms’ environmental orientation as well as the firms’ corporate environmental strategy (with

environmental orientation also influencing corporate environmental strategy) (see also Banerjee, 2001; Banerjee, 2002; Banerjee et al., 2003); this view is shared within other literature (see e.g. Menon and Menon, 1997; Fraj-Andrés et al., 2009).

These softer constructs reflect dimensions of perception, leadership, and organisational culture that were previously introduced. *Environmental orientation*, for instance, was defined in Banerjee et al. (2003) as ‘the recognition of the importance of environmental issues facing the firm’; partly conveyed through the ‘company’s internal values, standards of ethical behaviour, and commitment to environmental protection’ (p.106). These resemble the shared values and standards identified in the literature on organisational culture. *Top management commitment* in Banerjee et al. (2003) was defined as ‘top management’s direct involvement in environmental issues’ and was seen as a ‘strong internal political force’ that oversees the firm’s environmental orientation and environmental strategies (p.110).

Thus, some commonalities of the determinants in socially and environmentally responsible practice can be inferred from the merging of CSR and CE literature. First, top management’s environmental commitment is a significant factor in both CSR and CE. Waldman et al., (2006a; 2006b), for instance, identified leadership as a critical determinant for CSR similarly to how Banerjee et al. (2003) identified top management commitment as the most influential antecedent to CE. Second, literature on CSR and CE has noted the influence of the external environment on the firm’s adoption of sustainable practice. This may consist of regulatory forces, public reception, as well as other market factors that can be moderated by the members and the culture of the firm.

## **Discussion**

In this chapter, I presented a review of three groups of literature from organisational studies concerning the behaviour of organisations and their response to socially and environmentally responsible practice. The first set of literature presents an overview of the systems thinking approach in organisational theory and the understanding of organisations as open systems. This was purposely selected as a point of embarkation from the existing literature on property

developers and the real estate industry. The objective of this section was to illustrate that the way property developers behave is akin to and thus can be conceptualised as an open system organisation (see e.g. Ho, 2014). Property developers receive 'input' from factors in its external environment (i.e. economic, social, political, technological, physical factors); the organisation 'processes' or 'interprets' these factors; then an 'output' in the form of a decision or product is generated back into the external environment. A practical example would be to say how property developers are influenced by market demand (external input) that is taken into consideration by the firm (processing) that subsequently results in the decision to develop a certain type of property (output).

However, the 'processing' or 'interpretation' of factors in the external environment is contingent upon the perception and characteristics of the perceiver - and this is where the second set of literature on organisational behaviour and psychology contributes. Weick's (1969) enactment theory was amongst the first to add a twist to the open systems model and recognised organisations as being in a constant state of information restructuring. This process is cognitive; and organisations are seen to be the product of a continuous exchange of individual perceptions and socially constructed realities. Pairing this understanding with the constructs from organisational behaviour sheds light on the softer factors involved. Organisational behaviour identifies two major areas of psychological influences: leadership and organisational culture. Leaders as individuals influence the firm's perception of conditions in the external environment which results in corporate goals and decisions closely reflecting the leader's own judgement and personal characteristics. Organisational culture retains, influences, and moderates behaviour at a group level; members within the firm behave in accordance with the accepted standard of practice that is sustained by organisational norms, shared beliefs and values, that have been created and retained over time.

The third and last group of literature introduced was on CSR and CE. The objective of the review was to shed light on determinants for sustainable business practice. Highlighted from this body of literature was the influential role of top managers and softer constructs such as environmental orientation and environmental commitment which are found to be significant drivers for

sustainable practice. These dimensions have been limitedly discussed in the context of developer behaviour and decision-making. If green building is indeed a form of socially and environmentally responsible practice, our understandings of ‘how’ and ‘why’ developers engage in green buildings would be incomplete if these constructs are not taken into account. I refer to these as some of the ‘psychological constructs’ missing from our understanding of developer behaviour and propose that this gap in the literature warrants the development of a theoretical framework that redresses the understanding of developer behaviour by factoring the influence of these psychological constructs.

In summary, the organisational literature has shown that external context is important but so are other internal qualities of the firm. Most of the existing literature on property developers and development is primarily concerned with the financial mechanisms behind project decisions. While I acknowledge the significance of conditions in the external environment on private developer behaviour and their decisions to build sustainably, I contend – under the same views as scholars such as Hoffman and Henn (2008) and Hoffman and Jennings (2012) – that psychological dimensions to environmental practice have been overlooked. As much as the neoclassical economics approach may be able to explain behaviour in terms of supply and demand, it fails to address the softer side of decision-making or constraints posed by shared beliefs, expectations, and decisional biases.

This warrants a more holistic understanding of the psychological factors involved in developer behaviour and its influence on social and environmental practice. In the next chapter, I propose to combine findings from the literature into a conceptual framework that outlines how developers behave as open system organisations and the mechanisms behind their responses to green building practice, thereby redressing the key factors involved. I then propose to use this framework to empirically study 44 private developer organisations in Bangkok, Thailand and their responses to green building practice





# **Chapter Three**

## **Framing Developer Behaviour and Responses to Green Building**

The literature review presented in **Chapter Two** illustrates that the way organisations behave is much more complex than a mere response to conditions in the external environment. Organisations are susceptible to other psychological constructs within the organisation that influence *how* they choose to perceive and selectively process these external conditions.

This chapter aims to synthesise the understandings from organisation theory and organisational behaviour to develop and propose a framework that conveys how developers – as organisations – behave. The framework draws on the understandings from these two areas of literature to outline the mechanisms and main areas of influences behind developer response that are beyond factors in the external environment. Following this, the chapter draws on the third set of literature on corporate sustainability to narrow down the framework into eight key areas of investigation (AoIs), forming the basis for the empirical part of this research.

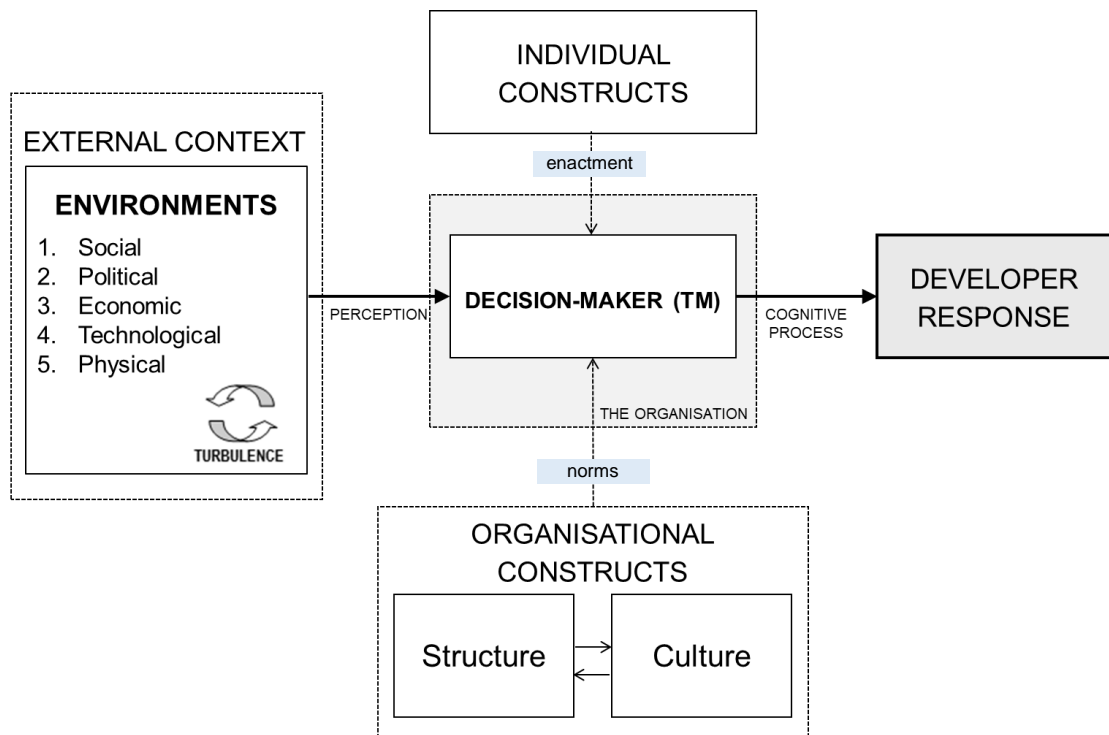
### **THE FRAMEWORK**

The framework begins with the understanding that developers are open system organisations; this reflects existing frameworks through which developer behaviour has been examined (see Ho, 2014). The open system framework signifies the process by which an organisation receives an input from its external environment, processes it, and delivers an output back into the external environment (Katz and Kahn, 1966). I suggest that this resembles how developers approach property development: developers receive information from their contextual environment (be it economic, market conditions, legal compliance), factor these conditions into their plans (information processing), resulting in a development proposal which reflects their interpretation of

these conditions. What I propose is missing from this understanding are the psychological dimensions or cognitive constraints that have been pointed out in the literature that shapes the perceptual process. Weick's (1969) enactment theory postulates how organisations construct their own realities. These realities are composed of human perception and shaped by the beliefs of individual members within the organisation that have been shared and retained over time.

Literature from organisational behaviour serves to remind us how organisations are made up of people; groups and individuals whose perceptions are influenced by differences in values, attitudes, beliefs, and what is perceived as normative standards of behaviour. My argument is that existing models of developer behaviour have paid inadequate attention to the psychological components of human behaviour. Existing studies in developer behaviour recognise that developers are diverse (Coiacetto, 2001); the development process has been explored under institutional and agency models which account for differences in *strategies* and *interests* of actors in the development process (see Healey 1991; 1992). However, the extent to which these psychological constructs have been examined and analysed is limited.

Thus, the framework proposed in this research conceptualises developer behaviour as organisational behaviour and defines developer response (i.e. strategic decisions, choices, actions) as an outcome of a cognitive process. The cognitive process is influenced by psychological constructs that stem from the personal values of the decision-maker as well as the norms that are shared and retained within the organisation. **Figure 7** presents the proposed framework.



*Figure 7 Proposed theoretical framework for understanding developer behaviour*

*Source: Author*

Central to the framework is the decision-maker that holds formal authority in organisational decision-making. Literature on leadership has shown that managers undertake information-processing and decision-making roles for the organisation (Mintzberg, 1973). While the framework does not discount the possibility of leaders being individuals without formal authority, it presumes that decisions in property developer firms are undertaken by key individuals such as top managers that strategize and plan for new development projects. It is through the ‘lenses’ of the decision-maker that organisational decisions are made (see Hambrick and Mason, 1984).

The decision-maker is influenced by factors and conditions in their **external environment**, this is depicted by Katz and Kahn’s (1966) five environmental sectors: social, political, economic, technological, physical; I propose that factors in the external environment can be coded to fit in one or more of these sectors. Conditions in the external environment are constantly changing (a phenomenon termed as *turbulence* (Emery and Trist, 1965; Katz and Kahn, 1966) which creates risks and uncertainty for the decision-maker. Up until now, this part of the framework can be considered akin to our current understandings of developers in existing literature (see Ho, 2014).

What the framework recognises that differs to the current understandings of developer behaviour is that the influence of the external environment is contingent upon the way they are perceived and interpreted. This cannot be separated from two areas of psychological influences: the **individual constructs** of the decision-maker as an individual – their personality, attitude, values and belief; and the structure and culture of the organisation – or **organisational constructs** – which denotes the capacity, normative standards of acceptable behaviour, and philosophy in practice. These two areas, I argue, are missing from the current understandings of developer behaviour.

In this regard, it is the interplay of these three areas – the *external environment*, the *individual constructs* of the decision-maker, and underlying *organisational constructs* – that work together to shape developers' decisions under a cognitive process, including decisions to engage in green buildings projects. Organisational constructs, I propose, can be further broken down into those pertaining to 'structure' and 'culture'. There is a large body of organisational literature that denotes how factors such as an organisation's age, size, wealth and internal structure limits its ability to adapt to changes in its external environment (see Hannan and Freeman, 1984; Kelly and Amburgey, 1991; Pettinger, 1996; Hatch and Cunliffe, 2006; Robbins and Judge, 2014). Some of these traits have been connected to developers' strategic approach to property development (see e.g. Morgan, 2010). I group factors that depict the traits of organisations under the broad umbrella of 'structure', while 'culture' primarily draws on Schein's (2017) work and encompasses the shared values, norms, and operational standards that governs the behaviour of the organisation and members within it.

## **INDIVIDUAL CONSTRUCTS, ORGANISATIONAL CULTURE, AND ENVIRONMENTAL PRACTICE**

The next step of the research is to apply and empirically test the framework in the context of private developers and green building practice. The underlying assumption to this part of the research is that developers' engagement in green buildings can be construed as environmental practice; thus, any psychological variables outlined in the literature that has been associated with corporate

environmental practice should also be relevant to the case of developers and green buildings. I also propose to set up the empirical fieldwork to explore facets of culture and individual constructs at greater lengths in comparison to that of structure. This is to allow more room for the research to explore the psychological constructs that I argue is missing from current frameworks but is also for case study specific reasons.

There is not much difference in the structure of large-scale developers in Bangkok. The age, wealth, and size of large-scale (i.e. publicly listed) developers in Bangkok are not significantly diverse, as there are regulations for the financial and operating status of listed organisations. Bangkok's listed developers also similarly operate under a strong hierarchical structure; this is deduced from preliminary fieldwork as well as the literature (see e.g. Chompookum and Brooklyn Derr, 2004). Acknowledging this, it would be more impactful to utilise the fieldwork to explore psychological constructs embedded in the developers' culture and their top managers. While there are findings on structure that are presented in **Chapter Six**, these mainly serve to depict the industry landscape of the case study in support of the analyses and discussions that take place in the later chapters.

To narrow down the framework into relevant AoIs, I refer back to the literature review on corporate sustainability (**Chapter Two**) to draw out the main psychological constructs associated with corporate environmental practice. There are some common understandings across CSR and CE literature which I group three 'psychological domains'. These represent groups of psychological constructs that have been associated with corporate environmental behaviour and/or responsibility. I further connect this back to the proposed framework (**Figure 7, p.91**) and posit that these psychological domains are facets of individual constructs and the organisation's culture. The remainder of this section details the three psychological domains, while the following section synthesises these domains to arrive at eight key AoIs that subsequently informs the foundation to the empirical part of this research.

- ***Domain 1: Environmental commitment and prioritisation***

The first psychological domain refers to constructs that the literature addresses as environmental commitment or the prioritisation of environmental issues within an organisation. Organisations that denote higher levels of environmental commitment in their corporate values and processes (e.g. corporate policies, objectives, activities) tend to be those that display higher levels of environmental practice. This is primarily supported by findings from the literature on CE (e.g. Banerjee et al., 2003) and CSR (e.g. Matten and Moon, 2008) but also echoes the works on psychological barriers in green building (Hoffman and Henn, 2008) and the broader literature on organisations and sustainable practice (Hoffman and Bazerman, 2005; Hoffman and Jennings, 2012).

The commitment and prioritisation of environmental conduct can be distinguished and used to describe commitments on both organisational and individual levels. At the organisational level, the organisation's internal or institutional environment (values, norms and rules), and the way it addresses environmental preservation as a core value, goal, or priority, has been shown to reflect commitment and engagement in environmental practice. This has been referred to under the frameworks of CE (Banerjee et al., 2003) as well as CSR (Matten and Moon, 2008).

At the individual level, literature from CE refers to the environmental commitment of top managers as the most influential antecedent (Banerjee et al., 2003). This contention is similarly deduced in the works of Hoffman and Henn (2008) and Hoffman and Bazerman (2005; 2007) that associate the cognitive biases in individuals with their involvement in green construction and sustainable practice. For instance, the notion of 'egocentrism' (defined as the extent to which individuals make trade-offs of self-serving behaviour in lieu environmental practice) is seen as a barrier to green building (Hoffman and Henn, 2008; see also Bazerman and Hoffman, 1999; Hoffman and Bazerman 2005; 2007).

Closely tied to the notion of environmental commitment is also that of environmental responsibility; another psychological construct that has been heavily associated with sustainable

practices amongst organisations. By being ‘responsible’, businesses make a conscientious effort to ‘give back’ and contribute to the well-being of society and the natural environment. Take for example the concept of CSR and how it was first introduced as the responsibility that business people should have towards their society (Bowen, 1953; Carroll, 1991). Banerjee et al. (2003), in their study of CE also referred to the firm’s environmental responsibility as part of its environmental orientation; a facet believed to shape the environmental behaviour of organisations.

- ***Domain 2: Environmental awareness***

The second psychological domain refers to the firm’s environmental awareness. Environmental awareness denotes the degree by which members of the organisation are made to understand the importance of environmental preservation. The influence that this has on corporate environmental practice has been documented in CE. Banerjee et al. (2003), for instance, refers to the firm’s effort ‘to make every employee understand the importance of environmental preservation’ (p.120) as influential towards the firm’s environmental orientation. The implication that environmental awareness has on corporate environmental practice is also evident in the history of CE itself. The U.S. oil and chemical industries became motivated to incorporate environmental practices thereafter Carson’s *Silent Spring* (Hoffman, 2001). It was the environmental awareness that the publication generated that changed the perception and mentality of the firms to search for alternative solution to reduce the impact of their business operations.

At the individual level, Hoffman and Henn (2008) also refers to the lack of ‘environmental literacy’ as a barrier to green building practice. *Environmental literacy* is defined as ‘an individual’s understanding, skills and motivation to make responsible decisions that considers his or her relationships to natural systems, communities and future generations’ (OSU, 2014). Hoffman and Henn (2008) contends that this lack of literacy makes it more challenging for individuals to connect climate change issues with energy conservation, reducing their sense of urgency to address environmental issues, let alone adopt green building practices.

- ***Domain 3: Environmental strategy and outlook***

The third and last psychological domain addresses the firm's perception of environmental practice in relation to business benefits. There is an extensive amount of literature in the field of corporate sustainability that argues for the adoption of environmental practices as a business case. This includes, for instance, the economic imperatives behind the conduct of CSR (see e.g. Porter and Kramer, 2006), the safeguarding of organisational legitimacy (see e.g. Kurucz et al., 2008; Carroll and Shabana, 2010), and the competitive advantage created by the development and marketing of green buildings (World Green Building Council, 2013; Dodge Data & Analytics, 2018).

The way organisations behave and adapt to the external environment would depend on its risk culture and strategic typology, for example, how risk-averse it is; how it perceives risk-taking as part of strategic response (Miles et al., 1978). The external environment of an organisation is filled with uncertainty (Emery and Trist, 1965; Katz and Kahn, 1966); decisions to engage in environmental projects will reflect the way the organisation and its leaders perceive strategic benefits and risks associated with the environmental product or service. An example discussed in Hoffman and Henn (2008) is the outlook on economic and environmental interests, referred to as the *mythical fixed-pie* (see also Hoffman and Bazerman, 2005; Hoffman and Bazerman, 2007). Decision-makers often fail to observe and engage in environmental solutions because of the assumption that economic competitiveness and environmental protection are opposed. Hoffman and Henn (2008) posits that this is especially the case for green building, where cost premiums in construction are commonly overestimated.

## **EIGHT PSYCHOLOGICAL AREAS OF INVESTIGATION**

The previous section outlined some of the most common psychological constructs that have been cited as influences towards the environmental behaviour of organisations. This section aims to narrow down the framework in light of these constructs to arrive at specific AoIs that reflect notions of organisational culture and individual constructs of top managers. In deriving these areas, I have sought to identify facets of organisational culture and individual constructs that can be seen to reflect or influence the three aforementioned psychological domains. I draw on the literature review



presented in previous chapters on organisational behaviour (**Chapter Two – Part II**) and green building (**Chapter One**) to identify what I perceive to be some of the most relevant and significant psychological constructs that may seek to explain developers' engagement in green building practice. To this end, **Table 1** represents a synthesis of the identified psychological constructs that would serve as the eight AoIs for the research fieldwork<sup>8</sup>.

Four of these areas reflect psychological constructs that can be considered a part of the developers' *organisational constructs* (or 'culture' as depicted in **Figure 7 on p.91**); the other four reflects that of top managers and their *individual constructs*. Corporate mission and philosophy (CMP), Corporate Environmental Responsibility (CER), Managerial Objective (MO), and Managerial Environmental Commitment (MEC) are derivatives of the first psychological domain on **environmental commitment and prioritisation**. Internal Environmental Awareness (IEA) represents the second psychological domain on **environmental awareness** within the organisation. Corporate Risk-Orientation (CRO), Managerial Environmental Outlook (MEO), Perception of Green Building Practice (PGBP) are derivatives of the third psychological domain that relates to **environmental strategy and outlook**.

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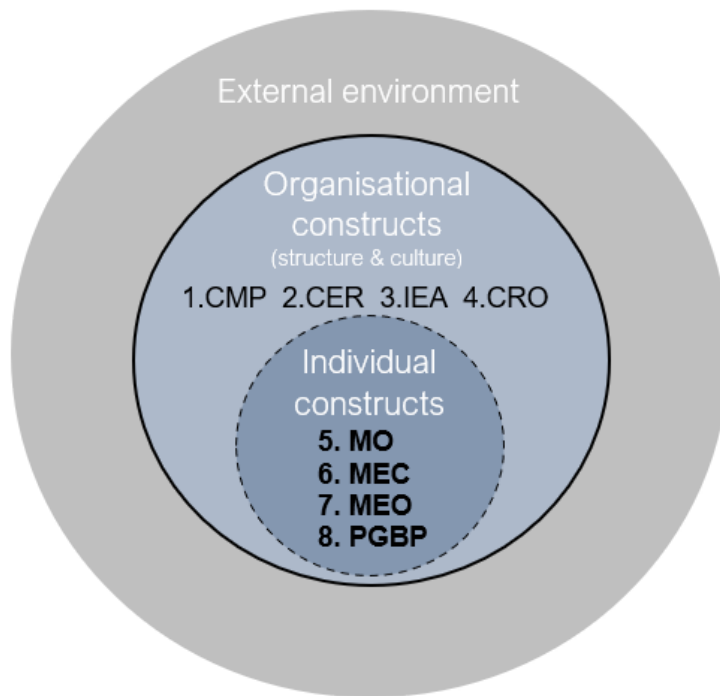
<sup>8</sup> It is important to note that the purpose of this **Table 1** is to illustrate how the eight areas have been derived in light of the existing literature; by no means does it serve to depict that the relationships between the eight AoIs and the three psychological domains are solely exclusive.

		Organisational constructs	Individual constructs
Psychological domain	Environmental commitment and prioritisation	1. Corporate Mission and Philosophy (CMP)	5. Managerial Objective (MO)
	Environmental Awareness	2. Corporate Environmental Responsibility (CER)	6. Managerial Environmental Commitment (MEC)
		3. Internal Environmental Awareness (IEA)	
	Environmental Strategy and Outlook	4. Corporate Risk-orientation (CRO)	7. Managerial Environmental Outlook (MEO)
		8. Perception of Green Building Practice (PGBP)	

*Table 1 Proposed eight psychological AoIs in relation to their psychological domains*

*Source: Author*

**Figure 8** positions the eight psychological AoIs back into the proposed theoretical framework in the beginning of the chapter (**Figure 7, p.91**). It shows the eight AoIs in accordance with their tier of influence set out by the framework. Nested under *organisational constructs* are facets of CMP, CER, IEA, and CRO. Located under *individual constructs* are MO, MEC, MEO, and PGBP. The eight psychological AoIs inform the focus of the empirical study where data on property developer organisations will be collected and analysed in accordance with these areas. These eight AoIs represent a group of psychological factors that have yet to be or are limitedly explored in the context of property developers and green building. By applying it to the investigation, the empirical findings from this research intends to shed light on the roles that these psychological determinants can have on developer behaviour and green building practice. The rest of this chapter runs through the definition of the eight AoIs in further detail.



*Figure 8 Proposed eight psychological AoIs in relation to the theoretical framework*

*Source: Author*

### **1. Corporate Mission and Philosophy (CMP)**

CMP is seen as part of an organisation’s culture (Schein, 1984; Brown, 1995; Pettinger, 1996). Mission statements indicate the long-term goals and objectives envisioned by the organisation and sets out principles that govern the organisation’s idea of ‘standard performance’. This in turn defines the philosophy, business aims, codes of conduct, and ethical principles that drive the behaviour of that particular organisation (Brown, 1995). The organisation’s history is also identified as a significant part of this AoI as it denotes the philosophy and values established by its original founders (Pettinger, 1996).

CMP as an AoI examines the corporate objective, philosophy, and history of an organisation and its relation to environmental practice. The area explores the extent to which organisations are committed to and prioritises environmental preservation, and how that influences green building practice. Based on the existing literature, it is predicted that developers with corporate missions

and philosophies that address notions of environmental preservation will engage in green building practice.

## **2. Corporate Environmental Responsibility (CER)**

CER refers to the degree an organisation relays the responsibility to preserve the natural environment. CER is seen as part of an organisation's culture that denotes environmental commitment, similarly to CMP, but in the form of responsibility. The reason for depicting CER as its own AoI is based on the significant influence that the concept of corporate responsibility has shown on organisations and their uptake of socially and environmentally responsible practices.

To demonstrate responsibility, organisations may establish corporate policies and strategies that seek to minimise or compensate for the social and environmental impacts that are caused by their business operations. CSR activities, for instance, is seen as a significant part of this AoI. It is predicted that developers that express higher degrees of CER are more likely to engage in green building projects.

## **3. Internal Environmental Awareness (IEA)**

IEA refers to the level of effort the firm puts towards promoting the understanding and importance of environmental preservation among its employees. It can be seen as part of an organisation's culture, reflecting the values and norms that an organisation seeks to retain.

It has been shown through studies on corporate environmentalism that the promotion of environmental preservation correlates with levels of environmental practice adopted by the organisation (see e.g. Banerjee et al., 2003). In the case of green building practice, it is anticipated that the level of internal environmental awareness in a developer organisation would relate to the likelihood of the developer constructing green building projects.

#### **4. Corporate Risk-Orientation (CRO)**

CRO as an AoI refers to how risk-averse an organisation is in relation to implementing a new or novel idea. It is based on literature that has associated risk-orientation with strategic decision-making. For instance, Scholz (1987) demonstrated that the way organisations process risks in the external environment influences the likelihood of them undertaking new ideas. Similarly, Miles et al., (1978) denotes how decision-making strategies undertaken by an organisation reflects their risk-orientation.

CRO expresses the character of an organisation that defines its willingness to accept risk; whether risks are viewed as a liability or an advantage in decision-making. Scholz (1987) views risk-orientation as a characteristic of organisational culture. It is anticipated that developers with a culture that is less risk-averse and more opportunistic towards technology and innovation are more likely to engage in green building practice.

#### **5. Managerial Objective (MO)**

MO as an AoI examines the corporate objectives identified by top managers and how that influences green building practice. It portrays the vision and outcome that the top manager envisions for the organisation and what they prioritise in practice. In the case of developers, this can reflect the manager's view on their priorities in a development project.

Hoffman and Bazerman (2005) contend that each manager understands and operates under their own set of philosophies. This philosophy is based on a set of taken-for-granted assumptions (i.e. management principles held unquestionably) that may have been acquired through business education or lessons over time. Management philosophy is embedded in individual values and beliefs, and can be seen as an individual construct.

## **6. Managerial Environmental Outlook (MEO)**

MEO as an AoI examines a manager's business outlook in relation to environmental practice. In the case of private developers, views on environmental practice and its synergies or conflicts with property development are investigated. This AoI draws on individual perception and how the environment in relation to the business is perceived.

Despite representing similar aspects of individual constraints, MEO and MEC are addressed as two different AoIs. The former refers specifically to managerial views on environmental practice in relation to business operations while the latter refers to managerial views and commitment towards environmental preservation more generally.

## **7. Management Environmental Commitment (MEC)**

MEC refers to the perception and degree of commitment towards environmental preservation that top managers have as individuals. MEC as an AoI examines the individual values and beliefs of top managers in relation to the natural environment and thus can be seen as an individual construct.

In Banerjee et al.'s (2003) study on corporate environmentalism, the environmental commitment of top managers was identified as a key antecedent. Hoffman and Henn (2008) similarly highlights individual perception of the environment as a main barrier in green building construction. Based on the literature, it is predicted that managers with higher levels of commitment towards environmental preservation will be more likely to undertake green building projects.

## **8. Perception of Green Building Practice (PGBP)**

PGBP refers to how top managers and decision-makers perceive the qualities and risks associated with green building projects. Studies from Hoffman and Bazerman (2005) and Hoffman and Henn (2008) show that individual biases towards concepts of green building may act as individual psychological constraints that hinder the practice.

It is anticipated that property developer firms with managers that are more optimistic about green building design and construction will be more supportive of green building projects. This AoI may extend to encompass how they view green buildings in light of sustainable development, business opportunities, as well as reflect their technical knowledge and ambition for the practice.

## **Discussion**

**Chapter Two** presented a review of literature on organisation theory and behaviour, outlining how the behaviour of property developers can be conceptualised as open system organisations. The literature highlighted the significance of psychological constructs within the organisation that act as determinants towards the organisation's *perception* and response to the external environment. This chapter sought to put these findings from the literature together to form a theoretical framework that readdresses the understanding of developer behaviour under an organisational behaviour framework. The proposed framework depicts the understanding of how developers – as organisations – behave and identifies the main AoIs for this research.

The framework (**Figure 7, p.91**) begins by conceptualising developer response and decision-making as a cognitive process. It understands that developers are influenced by factors in their external environment such as economic, social, political, technological, and physical factors, but presents two other psychological areas involved in shaping the interpretation of these factors: the *individual constructs* of top managers – their attitudes, values, and beliefs as an individual; and the *culture* of the organisation the shapes the philosophy, standards, and norms within an organisation. These two psychological areas alongside the structure of an organisation are believed to shape developer behaviour and have been limitedly explored in property research.

Following this, the proposed framework is narrowed down into eight specific psychological factors for empirical investigation; four that relates to the culture of the firm and four that reflects the individual constructs of top managers within the firm. CMP, CER, IEA, and CRO were identified

as the four factors pertaining to organisational culture; MO, MEC, MEO and PGBP were identified in relation to top managers' individual constructs (**Figure 8, p.99**).

The eight psychological factors identified from the framework forms the basis for the empirical part of this research. The next chapter outlines the methodology to investigate and analyse these eight factors in the selected case study of large private property developers in Bangkok, Thailand. **Chapter Five** follows up by providing a broader overview of the context, industry and developer firms operating in Bangkok; while **Chapters Six, Seven, and Eight** presents the analysis and discussion of the empirical findings.



# **Chapter Four**

## **Investigating Developer Behaviour**

Following the framework presented in **Chapter Three**, this chapter seeks to outline the methodology behind the empirical investigation. The chapter is presented in two parts: the first outlines the selected methods and research design for the study – a qualitative approach with combined document analysis and semi-structured interviews. This is supported with justifications from the literature and epistemological assumptions. The second provides an overview of the fieldwork conducted and initial responses.

### **RESEARCH DESIGN**

In order to put forward a suitable methodology for this research, methods in organisational research were reviewed. Organisational research as a social science discipline has been undertaken using positivist and interpretivist methodological approaches. That is to say that research methods in organisation studies fall under quantitative and qualitative paradigms (Lee, 1992). The selection of a suitable methodology rests on certain assumptions posited by the researcher and the research question at hand.

The study of a phenomenon and the way knowledge is obtained is contingent on the researcher's philosophical assumptions of the real-world. In social science research, this is usually understood as the researcher's theoretical position pertaining to different sets of ontological and epistemological assumptions (Moon and Blackman, 2014; Chowdhury, 2019). On one end of the spectrum, reality can be seen as an objective existence. Its singularity makes for positivist paradigms to objectively study phenomena by gathering measurable and quantifiable data that can be systematically and statistically analysed. On the other end of the spectrum, reality is seen as a social construct. Under this subjectivist paradigm, multiple realities exist, and are informed through

given meaning and interpretation. Reality is but a mental construct formed collectively by groups and individuals. It is thus a subjectivist's approach to study a particular phenomenon under perspectives of human perception, language, culture, and other symbolic understandings of reality.

In organisational research, quantitative approaches generally follow the positivist paradigm which focuses on the objective analysis of regularities and relationship in social processes through statistical form. Qualitative approaches on the other hand generally follow the interpretivist or subjectivist paradigms relying on the use of language to understand interpretative processes and discover underlying motives and reasoning that lead to behavioural outcomes (Morgan and Smircich, 1980; Lee, 1992). The adequacy and contribution of the approaches have been argued extensively from both ends, with concluding remarks that '...the precise nature of the two different research modes ultimately depends on the stance of the researcher, and how the researcher chooses to use them' (Lee, 1992 p.93). The two techniques are two different sets of phenomena based on different ontological and epistemological assumptions outlining different forms and emphasis of the study (Lee, 1992).

Cassell and Symon (1997) refer to the work of Bryman (1988) and Hartley (1994) to further explain that there are other 'alternative' and 'technical' standpoints to consider. First, in terms of definition. The authors posit that rather than selecting a method based on a particular label to the paradigm they are associated with, it is the way research methods are utilised and the interpretation of data that defines the researcher's epistemological assumptions. The example given is that in organisational research, 'qualitative' is often understood as 'associated with the collection and analysis of written or spoken text or the direct observation of behaviour', implying that numbers are not involved (Cassell and Symon, 1997, p.4). The use of 'qualitative', however, should not be so restricted. Researchers should continue to 'count the countable' and reduce data to quantifiable terms when it 'makes sense' to do so (ibid). For organisations, this often involves the quantification of the number of employees, profit, and resources that are used in order to utilise the data to further explain organisational phenomena. The explanation of behaviour surrounding these distributions,

however, would still warrant a more subjective approach; one that entails participant observation and/or enquiry of perspectives and interpretation of these situations.

The second point made by Cassell and Symon (1997), is that there is also a middle-ground where researchers are able to position themselves between the positivist-interpretivist extremes. Bryman (1988) suggests that quantitative and qualitative approaches are ‘each appropriate to different types of research problem’ (p.106) and it is the research problem that should determine the approach (Cassell and Symon, 1997). Pragmatism, for example, is a methodological approach that weaves quantitative and qualitative approaches into a single study (see also Moon and Blackman, 2014).

A similar position can be said for a researcher’s ontological perspective. Moon and Blackman (2014), among others (see e.g. Danermark et al., 2019), position critical realism for example as an ontology that is situated between positivist and interpretivist research paradigms. It has been described as a post-positivist approach to examining reality, offering a ‘reflexive philosophical stance’ (Archer et al., 2016). Critical realists believe that there is a single reality, but that reality can ‘never be understood perfectly’ because it is socially constructed using human perspectives which renders an ‘intractable nature of phenomena’ (Moon and Blackman, 2014, p.4). Thus, the examination of reality needs to be ‘ontologically reflexive’, taking on a *critical* examination of social realities themselves (Archer et al., 2016). In social sciences, critical realism often concerns itself with the mapping of ‘causation, agency, structure, and relations’, probing into ‘unobservable structures’ that give rise to facts and events in the real-world (Archer et al., 2016; University of Warwick, 2016). In this regard, it has been described as a ‘meta-theoretical position’ taken on by the researcher as opposed to a particular methodology or theory and can encompass a family of research methods (Archer et al., 2016).

To this end, it is not simple to define one’s philosophical assumption of reality nor to identify with a particular ontology. This process requires reflectiveness and reflexivity to reach an understanding deep enough to justify one’s position. In order to deduce the ontological and epistemological assumptions underpinning this research, I have worked backwards to reflect on my interpretation

of the literature and construction of the research's theoretical framework. Through this account, it can be justified that this research identifies with the interpretivist methodological approaches in exploring Bangkok's developer behaviour. This is informed at large by the research's theoretical framework that seeks to explore the influence of individual and organisational constructs of developer firms and decision-makers, and the qualitative research methods that follow suit. However, the frameworks for analytical discussion of the findings in the later chapters transition into a more critical realist approach where implications drawn from the findings shift to embody a critique of these social and behavioural constructs.

The approach adopted by this research draws closely on precedents in organisational studies. Organisational phenomena are complex; variables that may seem independent are often influenced by others (Lee, 1992). Qualitative investigation and analysis would allow topics of different levels and meaning to be examined (King, 1994; King, 2004). They have been used to explore organisations' sensitivity towards the external environment (Bryman et al., 1996; Johns, 2006) and uncertainty (Child, 1972; Milliken, 1987). They are seen to increase the diversity and sources of insights for discoveries (Lee, 1992) and are able to identify a 'full range' of behaviour and attitudes (Johns, 2006). Symon and Cassell (1998) commend qualitative research analysis for two key features: the flexibility for accounting new theories and ideas, and the significant contribution that individual experience may bring forward.

Adhering to qualitative research methods would enable the investigation into the 'softer' factors that contribute to developers' responses towards green building. There are various methods to qualitative organisational research (see Symon and Cassell, 1997; Symon and Cassell, 1998; Cassell and Symon, 2004), however, two specific methods – document analysis and qualitative interviews – have been chosen for the aims and purpose of this study. Together, the two methods will be able to generate detailed insights on the behavioural characteristics and symbolic-interpretative qualities that need to be examined and analysed.

- ***Document analysis***

Document analysis involves the systematic examination and interpretation of existing documents (both printed and electronic) in order to elicit meaning, gain understanding, and develop empirical knowledge on the subject (Bowen, 2009). In the case of organisational research, the process is an analysis of company documentation and may include the examination of the following types of organisational documents:

- Company annual reports;
- Public relations (PR) material and press releases;
- Accounts statements;
- Corporate mission statements;
- Policies on marketing strategy;
- Policies on rules and procedures;
- Human resource management strategies;
- Policy directives on training, career management, job mobility and relocation management;
- Informal and private correspondence between staff and correspondence between respondents and researchers (Forster, 1994, p.148).

The process of document analysis is said to provide a rich source of insight on organisational life, including the organisations' 'image' and 'culture' (Forster, 1994). Looking closely at organisational documents can help yield the record of events that have taken place as well as historical processes and developments of the organisation. Certain information that can be attained through documents may not be entirely present in verbal accounts.

- ***Qualitative research interviews***

Qualitative research interviews are defined as interviews that 'gather description of the life-world of the interviewee with respect to interpretation of the meaning of the described phenomena' (King, 1994, p.14). It has been widely used in organisational research and

commended for its high level of flexibility that enables the production of in-depth data findings (King, 1994).

The goal of qualitative interviews is to ‘see the research topic from the perspective of the interviewee, and understand how and why he or she comes to have this particular perspective’ (King, 1994, p.14). In order to achieve this goal, it is suggested to ensure:

- A low degree of structure imposed by the interviewer;
- A preponderance of open-ended questions; and
- A focus on ‘specific situations and action sequences in the world of the interview; rather than abstractions and general opinions’ (King, 1994, p.15)

Interviews are said to be useful in investigating organisational processes behind decision-making as well as to examine broader aspects of organisational culture (King, 1994). Interviews also allow the researcher to obtain first-hand (face-to-face) experiential accounts with their respondents. King (1994) suggests that qualitative research interviews are the most appropriate means for studies that:

...focuses on the meaning of particular phenomena to the participants; where individual perceptions of processes within a social unit are to be studied prospectively, [and when] ... individual historical accounts are required of how a particular phenomenon developed’ (pp.16-17).

Selecting the type of interview to be used should also coincide with the nature of the research. King (1994) proposed the following guidelines that outline circumstances to which each type of research interviews can be appropriated:

*Structured interviews* are most appropriate where:

- Testing of formal hypotheses is desired;
- Data gathered can be readily and meaningfully quantified;
- Factual information is to be collected and the type of information the participants will be able to provide is known in advance;
- Postal survey would likely produce a very poor response rate;

- Generalisability of previously obtained qualitative findings is to be tested.

*Structured open-response interviews* (semi-structured interviews) are most appropriate where:

- Quick, descriptive account of a topic is required, without formal hypothesis-testing.
- Factual information is to be collected, but there is uncertainty about what and how much information participants will be able to provide.
- The nature and range of participants' likely opinions about the research topic are not well known in advance and cannot be easily quantified.

The use of semi-structured interviews coincides with the focus of this research as it aims to collectively explore individual and organisational accounts whose type of information may be variable and may not be easily quantified. It allows for flexibility during the interview session to effectively draw out responses (i.e. through modifying the style, pace, and ordering of questions); and provides an opportunity for the respondents to express their own personal views and opinions (Cohen and Crabtree, 2006; Noor, 2008; Qu and Dumay, 2011).

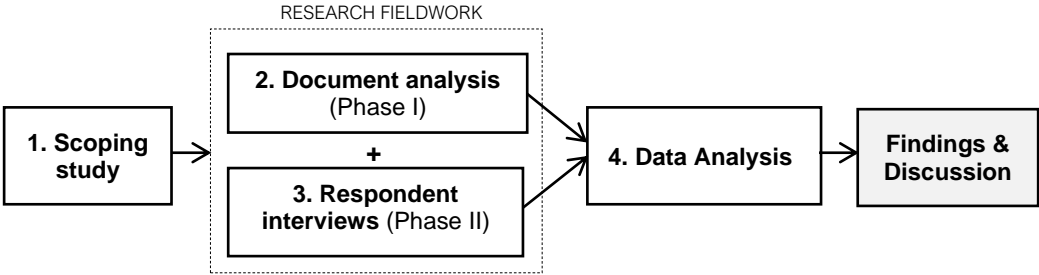
Semi-structured interviews have also been commended for its use in disclosing important and often hidden facets behind human and organisational behaviour. More particularly, it has shown to help develop an understanding of the way managers 'make sense of and create meanings about... their job and their environment' (Qu and Dumay, 2011, p.246). The process also facilitates the exploration of organisational culture from an individual perspective, uncovering managerial and organisational influences (Qu and Dumay, 2011). Through the interviews, the study will be able to test the validity of its framework and draw out relevant organisational and psychological constructs so as to determine its influences on developer behaviour.

The use of document analysis in conjunction with qualitative research interviews provides an effective mean to examine processes behind developer behaviour and their responses to green

building. Qualitative interviews serve to draw out behaviour-related concepts and individual rationales from managerial members of the organisation, while document analysis provides harder administrative evidence that can be used to verify and support interview findings. The document analysis process will also help to narrow down the scope of interview questions to explore the ‘softer’ constructs.

To this end, the research design for empirical investigation is set out in four main steps (**Figure 9**):

1. **Scoping study** – the background analysis, selection of the case study and identification of potential organisations and interviewees;
2. **Document analysis** – Phase I of the fieldwork. Document analysis of the respondents’ relevant organisational documents
3. **Respondent interviews** – Phase II of the fieldwork. Conduct semi-structured interviews with target respondents
4. **Data analysis** – Analysis of fieldwork data leading to the presentation of the findings and discussion as the outcome of this research.



*Figure 9 Proposed research design*

*Source: Author*

**Scoping study**

For this research, Bangkok is selected as a case study. Private developers in Bangkok hold great bearings on the city’s urbanisation process. There is a large amount of development activity undertaken each year by large private developers in Bangkok and the region. Yet there is limited research and understanding of the behaviour of large-scale private developers operating in these



contexts. Understanding their responses to the green building practice will help contribute insight towards sustainable patterns of development in Bangkok as well as other similar cities.

In narrowing down the target respondents, the study defines ‘large private developers’ in Bangkok as firms that are publicly listed on the SET. These are developers that are large in size with large market shares. Further justification for the empirical study of publicly listed developers in the case of Bangkok are as follows:

- They are representative of developers that function as ‘organisations’ due to their operating size, internal structure, and market placement. As this study is undertaken from an organisational behaviour approach, it is fundamental that the group of respondents are representative of this framework for it to apply
- The portfolios of SET-listed developers consist of projects that are eligible (by scale and programme) to be registered under a green building certification scheme. That is to say that in principle, these developers are able to partake in green building activity
- SET-listed developers are among the largest developers in the country. Investigating this group of developers may reduce the potential that the green agenda is limited by economic feasibility and enable the opportunity to explore other factors
- Most importantly, understanding the city’s largest private developer firms and their perspective on sustainable practice can provide substantial implications for change and market transformation
- The developers are publicly listed which means that organisational documents are transparent and readily available

A scoping study (Arksey and O'Malley, 2005; Davis et al., 2009) was performed on the 44 SET-listed developers prior to the document analysis and interview phases of the fieldwork. Arksey and O'Malley (2005) define the purpose of scoping studies as one that seeks to rapidly map out key concepts underpinning the research and identify main sources or types of evidence that are available for data collection. The depth and rationale behind scoping studies can vary; they may be performed on academic literature as well as on empirical evidence (Arksey and O'Malley, 2005;

Davis et al., 2009). The objective of the scoping study performed in this stage of the research is to broadly map out the corporate profile of the listed developers and identify the type and content of corporate documents that will be available for analysis. The survey would also generate a pool of data on the target respondents which serves to provide an overview of the industry sector and support empirical findings from the fieldwork. Information on the age, size (no. of employees), revenue (total income and profit), organisational structure and property portfolio (type and location of projects) of the 44 SET-listed developers were collected at this stage of the research (**Appendix 1**).

Arksey and O'Malley (2005) further note that scoping studies can be 'undertaken as stand-alone projects in their own right' (p.21), especially for studies that are investigating complex areas or those that have not been reviewed before. Although the purpose of this scoping survey does not directly engage with the eight psychological AoIs identified in **Chapter Three**, findings from this stage of the study help to shed light on other structural determinants (referred to as 'structure' in the proposed framework) that may be involved in shaping developers' engagement in green building. These will be shared in **Chapter Six**.

Data collected in this part of the fieldwork was collected through the firms' company website and available public documents on the listed developer companies (SET, 2015). These were entered and later processed via functions in Microsoft Excel.

### **Phase I: Document Analysis**

Following the scoping survey, Phase I consists of the document analysis process. It involves the review and analysis of existing organisational documents and public records of the listed developer organisations. The collection of data from documentation will serve four key functions in this research:

1. To identify and gather organisational materials for data analysis; this is primarily to generate findings in response to the research question in areas where the interview may not suffice.

2. To identify and gather organisational materials that are readily available in order to obtain any introductory information that may serve to preliminary inform the researcher or replace interview questions; this will facilitate interview sessions and allow additional time to focus on questions that require direct input from the respondents (Forster, 1994).
3. To triangulate data drawn from the respondent interviews and other sources; this is in line with Bowen's (2009) and Forster's (1994) suggestion on the use of documentary sources to support information acquired through other research methods.
4. To obtain any organisational information that may be used to connect back to the findings and aid analysis.

A series of protocols that list potential documentary data sources and pointers for the eight AoIs have been developed as a guideline for Phase I of the fieldwork (**Appendix 2**).

### **Phase II: Respondent Interviews**

Phase II of the fieldwork involves semi-structured interviews with managers from the listed developer organisations. The interviews carried out aim to follow up on the AoIs or further explain findings from Phase I. Interview questions for this research drew on the eight AoIs set up by the framework in **Chapter Three**. An initial list of interview protocols was established as protocols that aimed to guide the conduct of the respondent interviews (**Appendix 3**).

However, early in the fieldwork, the initial interview protocols were revised (namely the wording of the interview topics and its translation to questions in Thai). From the first few interviews, it was made aware that some of the questions needed to be rephrased and restructured in a way that were broader and less theoretical to facilitate more elaborate and effective responses. The revised interview protocols and their Thai translations are presented in **Appendix 4**. These were then shortened to form a list of preparatory interview topics (**Appendix 5**) that was sent out to the interviewees upon recruitment<sup>9</sup>.

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<sup>9</sup> The full protocols (**Appendix 4**) were initially sent out to the first few interviewees upon recruitment; however, there was little response. These were then shortened and replaced by the list of interview topics (**Appendix 5**).

During the interviews, the questions were not addressed in a predetermined order. Flexibility in rearranging questions during interviews has been regarded as an important factor for successful outcome (King, 2004). The opening question was kept the same throughout and began with a general overview of the organisation's involvement and perspective on green building practice. This reflects King's (2004) suggestion to start with questions that are more factual or descriptive and simple to answer in order to ease the tension between the interviewer and the interviewee. The rest of the questions were allowed to transpire in an organic manner and interviewees were probed for further narrative if/when an interesting topic arose (Qu and Dumay, 2011). The interviews ended with a broader question on the promotion of green buildings in Bangkok, prompting a reflection on any other factors that may have been unaddressed during the course of the interview.

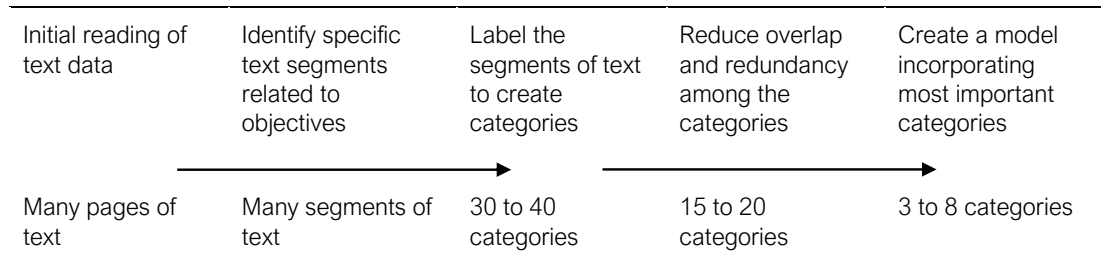
### **Data Analysis**

The final step to the empirical investigation is the data analysis process. For this research, data collected were analysed using inductive thematic analysis. Interview findings were analysed in conjunction with document data collected in Phase I to provide answers and responses to the original research question posed.

Thematic analysis is defined as a coding process that identifies repeating themes and patterns in data to produce a constellation of affective, cognitive, and symbolic dimensions of the phenomenon under study (Braun and Clarke, 2006; Joffe, 2012). It is widely used in organisational research (King, 1994; Braun and Clarke, 2006) and is seen as a method that enables the investigation into the conceptualisation of a particular phenomenon by a specific group (Joffe, 2012). It has been highly commended for its flexibility as it can be applied across a range of theoretical and epistemological approaches allowing it to yield 'rich, detailed, yet complex' accounts of data (Braun and Clarke, 2006, p.78).

The analysis begins with a coding process that follows the suggestion by Thomas (2006) for inductive analysis and the development of data-driven codes (**Figure 10**). The process begins with several close readings of the text until an adequate level of familiarity with the themes and contents

begin to emerge. Text segments that ‘contain meaningful units’ (Thomas, 2006, p.241) are then identified, labelled, and categorised. Through further review and reading of the data, additional text segments are added to the categories. Categories are then revised to refine and reduce any overlaps or redundancies. A model is then created based on the more significant categories.



**Figure 10** The coding process in inductive analysis

Source: Adapted from Thomas (2006)

The objective of the inductive approach is to allow research findings to emerge from frequent, dominant, or significant themes that are inherent in the raw data (Thomas, 2006). It seeks to:

- Condense extensive and varied raw text data into a brief summative format;
- Establish links and relationships between the research questions and findings;
- Develop a model or theory about the underlying structure of experiences or processes that are evident in the data (Thomas, 2006).

The outcome of the analysis is the development of data-driven codes that are drawn into a model or framework that forms key themes and processes to address the research question.

In order to ensure the validity of the inductive approach proposed by Thomas (2006), other processes for developing data-driven codes were also reviewed. The approach was similar to that suggested by a number of authors. In Joffe and Yardley’s (2004) guide to coding and thematic analysis, the process of coding was described as ‘...noting patterns in the data and dividing up the data to give greater clarity regarding their detailed content’ (Joffe and Yardley, 2004, p.59). Patterns are then labelled with codes. DeCuir-Gunby et al. (2011) similarly explained the system

behind developing data-driven codes as determining ‘how to reduce raw information into smaller units, such as categories or themes’ (DeCuir-Gunby et al., p.144).

Once all data has been coded, the data is analysed for recurring *themes* (Braun and Clarke, 2006; Fereday and Muir-Cochrane, 2006). Themes are defined as ‘a specific pattern of meaning found in the data’ (Joffe, 2012, p.1) and can be seen as a broader amalgamation and unification of the subject of inquiry (Bradley et al., 2007). Three themes were generated from the empirical findings of this research and are discussed in **Chapter Nine**.

The coding of documentary and interview data was performed in Microsoft Excel (see e.g. Bree and Gallagher, 2016; Vaughn and Turner, 2016) where the derived codes were entered in the column headers and each row was ascribed to one of the 44 listed developers. A marker was then recorded in each row/column once the code was applied. Functions in Excel were used to process the percentage of respondents that were awarded a particular code. Care was taken when using these figures so as to not generalise any figures that may not be a representative sample.

Eight spreadsheets were created as a starting template for each of the AoIs; additional spreadsheets were then created throughout the coding process for specific areas that prompted further investigation. For instance, additional sheets were created for the developers’ engagement in types of CSR activity following the coding of data on CER. The spreadsheets developed are attached in the appendix (**Appendices 13 to 20**).

## **SAMPLE AND RESPONSE**

Research fieldwork took place from March 2016 through to December 2017, with Phase I of the fieldwork taking place primarily six months prior to Phase II. Phase I of the fieldwork was conducted remotely at the researcher’s institution in London between March and July 2016 where additional documentations were collected throughout 2017 to supplement emerging findings. Phase II interviews were conducted between August and October of 2016 in Bangkok.

Document analysis was conducted on 44 SET-listed developers that were registered in Bangkok at the time. 22 semi-structured interviews were performed with managers each representing one of the 44 organisations. The data obtained and presented in this thesis is based on the collective findings from the two phases of fieldwork. The overall sample (n = 44) and interview response rate of 50% are later justified at the end of this section.

During the fieldwork, the researcher reached out to all 44 organisations individually to request an interview. This was carried out through the researcher's own second or third-degree contact, via email or direct phone calls. Interview requests were submitted with supporting documents consisting of a formal letter in Thai (**Appendix 6**), an outline of the interview topics (**Appendix 5**), and University College London (UCL)'s approved research information sheet and consent form (**Appendices 7 and 8**). Ethical considerations were taken in line with standards and guidance from the UCL's Research Ethics Committee. Participants were informed that they were able to withdraw at any time and that their interview transcripts were anonymised and used for only academic purposes. Interviews were conducted in Thai except for two cases that were conducted in English.

The response rate of 50% was due to rejection or non-response from the targeted organisations. Of the 44, five respondents rejected on the basis that there was nothing to share with the researcher as their organisation did not engage in green building practice. One organisation sent in a written response to the interview questions in place of the interview request, while the other 16 organisations did not respond. 15 of the non-responses were organisations contacted via email and direct phone calls where the researcher did not have any known networks. Of the 22 interviewees, 14 were top management, four were senior managers, one was assistant manager and three were middle to senior-level staff from the SET-listed developer organisations<sup>10</sup> (see **Appendix 9**).

In order to ensure that the response rate from the interview findings would be an adequate representation for discussion, the representation of the response rate was validated by consulting

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<sup>10</sup> One interviewee did not disclose their position in the organisation at the time the fieldwork took place.

academic references for an acceptable ‘benchmark’ for qualitative research using interviews and organisational studies of similar nature. The validation was brought forward through two strands of literature: sample size and data saturation for qualitative research interviews, and general response rates (attrition rate) in organisational research.

- *Sample size and data saturation*

There is no single benchmark for the number of interviews required to justify a qualitative piece of research (see Baker and Edwards, 2012). The adequate number of interviews is often guided by the concept of theoretical saturation or *data saturation*, defined as a milestone in the conduct of qualitative research at which ‘no new insights (i.e. themes, issues) are obtained’ for a category of data (Mason, 2010; Guest et al., 2006; Bowen, 2008). Data saturation signifies the point at which the research should end (Morse, 1995). This section outlines recommended sample sizes in similar studies as per the literature review (i.e. qualitative research, PhD, and graduate level studies) and explores those needed to achieve data saturation.

The study draws closely to Mason’s (2010) study on sample sizes in qualitative PhD studies as this can be seen as a similar case given the available time and resources. Mason (2010) studied the sample sizes in 560 PhD studies that utilised different qualitative approaches and found that the most common sample size for PhD studies is between 20-30 (followed by 40, and 10). Recommended sample sizes for qualitative research identified in published academic papers ranges vastly between five to 50, with the most common range being 20-30 individuals (**Table 2**).



Author	Remark	Recommended sample size
Bertaux (1981)	All qualitative research	>15
Baker and Edwards (2012)	Advise for graduate level students	12-60 (Mean =30)
Mason (2010)	Most common sample size	20-30 (Mean = 31)
Thompson (2004)		20-30
Warren (2002)	Interview-based qualitative study to be published	20-30
Charmaz (2006)	Adequate for small projects	25
Dworkin (2012)	Adequate sample size	5-50
Ritchie et al. (2003)		<50

**Table 2** Recommended sample sizes in qualitative research

Source: Compiled by Author drawing primarily on Mason (2010)

The second benchmark reflected on was on data saturation. Green and Thorogood (2009) contend that little new concepts come out of transcripts after 20 interviews (cited in Mason, 2010); while Guest et al., (2006) found through experiments on data saturation and variability that saturation occurred within the first 12 interviews. However, despite being a theoretical criterion to justify adequate sample sizes for qualitative inquiry, the concept of data saturation itself is often criticised for its inexact and inconsistent properties due to its imprecise definition (Guest et al., 2006; Bowen, 2008). Mason (2010) argues that, ultimately, data saturation may be achieved at any point ‘depending’ on the study. It is also argued that data quality may be a more important measurement and that sample sizes may be consequently dependent on other factors such as the heterogeneity of the sample, the breadth and scope of the research question, and the desired theoretical underpinnings of the study (Bryman, 2012).

- **Response rates in organisational research**

Response rates in organisational research were reviewed in order to provide a frame of reference for the 50% response rate received. Although a recommended response rate for interviews in

organisational research was not found, literature on expected response rates for surveys conducted in organisational studies was acquired and reviewed.

Survey response rates are shown to have decreased over the years, from 64.4% in 1975 to 55.7% in 1985, to 48.3% in 2005. It is noted that response rates are different for individual-level and organisational-level enquiries, and that it may differ for individuals in different positions within the organisation (i.e. employees, professionals, managers, top managers). Studies in organisational research methodologies suggest that the survey response rates are usually at approximately 50%; with an even lower response rate of 36% from top managers (Baruch, 1999; Baruch and Holtom, 2008). This was similarly confirmed by Cychota and Harrison (2006) who found executives' response rate to be 32% across 231 studies from 1992 to 2003. The lack of response from top managers could be due to a number of reasons such as time constraints, logistics, the respondent considered the research irrelevant, or it was company policy to not respond.

Drawing on the literature presented above, the 22 interviews used to inform findings and discussions in this thesis is adequate. During analysis, data saturation was achieved, and no new themes emerged. The sample size is also within the recommended range for its type of research (see **Table 2**). The researcher further reflects on the non-response as a result of particular circumstances that may be applicable to Bangkok. First, 'green building practice' and issues related to the environment remain a rather sensitive issue to discuss with local property developers. Despite most recognising environmental practice as a responsible practice, it is not yet widely practiced in Thailand. This may be disincentivising and cause respondents to be disinterested, sceptical, or perceive the research as irrelevant to their practice.

Second, there may be other cultural constraints and processes involved. There is an understanding that interview requests with private organisations for academic purposes in Bangkok are not treated with high priority. Often, researchers need to send in interview requests with a formal letter from their university or sponsor organisation. This is usually through direct phone calls or email to Human Resources after which their request is passed on and considered, which may involve several

people or departments. Requests may be lost, neglected, or rejected, and the researcher is often uninformed of these processes or decisions.

- *Enquiring about ‘green building’ and ‘sustainability’*

As outlined in **Chapter One**, ‘sustainability’ can be understood and construed in a myriad of ways; its definition corresponding to varying worldviews. ‘Green building’ on the other hand appears as a more concrete item as it is generally used to denote environmentally friendly approaches to design and building construction processes. However, there can be nuanced interpretations of what green building entails as a result of familiarity with preferred standards or certification schemes (i.e. does a ‘green building’ by definition imply a *certified* green building? And if so, certified by who?). It is thus important to consider and clarify the approach this research undertook to address these terminologies and ensure parity among interviewed respondents during the fieldwork. As all but two of the interviews were conducted in Thai, nuances in the translation are also taken into account.

The interview guide (**Appendix 3**) was initially arranged in English and subsequently translated to Thai where its topics were circulated to potential interviewees during the fieldwork (**Appendices 4 and 5**). During the translation process, the Thai equivalent terms for keywords such as ‘sustainability’, ‘green building’, and ‘environmental practice’ were carefully considered. The translation of these terms to *khwarm-yang-yuen* (ความยั่งยืน), *arkhan-kheaw* (อาคารเขียว), and *gharn-dhamngern-ngarn-dharn-sing-vhaedllhom* (การดำเนินงานด้านสิ่งแวดล้อม) intended to capture the underlying meaning of these concepts as much as possible whilst ensuring that these were the equivalent terms used in the local industry. As a Thai native speaker with experience in the field, the author was able to ensure accurate translations were achieved. The selected terminologies were also confirmed with other professionals in the industry.

During the interviews, there was consistent use of the selected terms. ‘Sustainability’ was used more frequently in the opening and ending questions where it would facilitate broader discussion of developer response to sustainable practice. ‘Environmental practice’ was used when inquiring

about the firm's environmental efforts and MEC. 'Green building' was used specifically to enquire about developers' response to the construction of environmental buildings. It is, however, important to note that while this thesis defines and discusses green building as one that is certified by a third-party standard (e.g. LEED or BREEAM), during the interviews, the term 'green building' was loosely and interchangeably used with less stringent terminologies such as environmentally friendly buildings (อาคารที่เป็นมิตรกับสิ่งแวดล้อม) or energy-efficient buildings (อาคารประหยัดพลังงาน) to facilitate discussions.

King (1994) notes how flexibility is 'the single most important factor in successful qualitative interviewing' (p.21). He followed this up by noting that allowing flexibility in the ordering of interview questions in accordance with the dynamics of the interview is essential in fostering fruitful responses. He also notes that when interviewing 'high-status' interviewees (e.g. senior managers and professionals) it is important not to over-impose knowledge so as to establish an appropriate relationship for the interview and steer clear of any offence or disrespect. Here, the strategy above in utilising selected terms at different instances and allowing developers to respond more broadly on these concepts were seen as ways to bring out in-depth discussion on the topic of green building that may be beyond cost-benefit and considerations for certification.

References to LEED and TREES as green building standards were often used during the interview, but these were usually incorporated by the researcher as probes or left to be brought up at the interviewees' own discretion. As the next chapter will introduce, LEED and TREES are the two most common references for green building standards in Thailand. Majority of green building projects are certified under the USGBC's LEED rating scheme. TREES is the Thai equivalent certification rolled out by the TGBI and was the first green building standard to be incorporated into the 2013 Bangkok City Plan. It is under these scenarios that Bangkok developers have garnered increased awareness of these two particular standards.

- ***Avoiding potential researcher and interviewee biases***

Qualitative methods are based on subjectivist methodological approaches. In King's (1994) chapter on the conduct of qualitative research interviews, it is noted how qualitative research – unlike quantitative research – ‘does not require researchers to strive for ‘objectivity’ and to distance themselves from research participants’ (p.31). Qualitative research, seen as a method used to probe into ‘how people make sense of their world’ (ibid) makes it *impossible* to fully remove the interviewer's sensitivity as it is these ‘subjective’ aspects of the relationship that ‘is an essential part of the research process’ (ibid). However, this does not imply that the possible issue of research bias should be ignored; preventive measures against potential researcher and participant biases were employed in the interviews conducted in this research.

#### *Bracketing*

The first technique outlined by King (1994) is to ensure that the findings produced by the research ‘are not simply a product of the researcher's prejudices or prior expectations’ (p.31). To prevent this, the literature proposes ‘bracketing’ as a technique where the researcher is to ‘recognize their presuppositions in the analysis of data’ and ‘make a conscious effort to set these aside’ (ibid). This technique has been used in phenomenological research as well as other qualitative research approaches. King (1994) notes that the researcher should also ‘allow themselves to be surprised by the findings’ (p.31); Onwuegbuzie and Leech (2007) suggest that examining outliers in qualitative research can provide further valuable insight into the phenomena being studied. This conforms to techniques employed to mitigate confirmation bias where the researcher is to consider and evaluate emergent data without preceding assumptions as best as possible.

To avoid researcher bias, there is also the need to ensure that interview questions and the order of questions do not lead the interviewee to a particular answer. In conjunction with this, interviewee bias can be avoided if the researcher creates an environment that reassures the interviewee that any response they decide to give is an acceptable response (e.g. stressing that anonymity would be maintained). This would help remove any potential social desirability bias that can occur (see Collins et al., 2005). Green building is seen as good practice and thus can become a sensitive

subject for participants from developer firms that do not promote or support this. In this regard, it is important to be able to secure the most honest answer possible as to why respondents may disagree with the practice. It is suggested that by beginning the interview with general questions before moving into sensitive questions and phrasing these questions in a more indirect manner can help participants to respond openly and mitigate these potential biases (King, 1994).

Insights gained from research participants differ from that of the positivist paradigms as interpretation and analysis of data collected cannot be fully removed entirely from the researcher's own sensitivity (King, 1994). In this research, a distinct effort has been made to outline the researcher's positionality on the subjects that may influence the findings of this research. These include philosophical assumptions undertaken about privatisation, environmentalism, and the cultural sensitivities that may influence the conduct of research in the context of Thailand.

Whilst recognising that not all sensitivities can be entirely removed from the subjectivity of the process, I have also sought to maintain a neutral position in analysing the findings. This is done by allowing myself to be informed by what is present in the data even though this may differ or contradict prior expectations. Evident from this conduct is the way in which my view on the subject has evolved; the discussion and analyses in later chapters on the subject of developer behaviour and implications for future green building diverge into commentaries on structural issues rather than agency which was the initial premise for this study. Ultimately, the process has transitioned my perspective of the subject from an agency to a more structural point of view towards the end of the PhD process.

In addition to my position above, close adherence to the interview guide also served to remove bias in data collection and analysis. Interviewees were all asked the same questions albeit in a slightly different order so as to promote a more dynamic conversation. The structure of the interview guide and the questions under each interview topic clearly distinguished questions posed about the organisation (i.e. organisational constructs – CMP, CER, IEA, CRO) from questions aimed at

managers' perspectives (i.e. managerial constructs – MO, MEO, MEC, PGBP). That is not to say however that the two perspectives do not overlap.

Bearing these sensitivities in mind during the conduct and analysis of interviews, it is possible to discern statements that represent the managers' own perspectives based on their responses and distinguish them against the beliefs that are retained by the organisation. For instance, when a manager talks about their organisation's perspective they often use their company's name or 'we' as a pronoun. However, when they talk about their personal views, they either identify that it is their own or address how their views are influenced or represented by the organisation's culture. Maintaining this sensitivity in the treatment of interviews have also allowed managers to explicitly disclose their opinion despite it contradicting their organisation's stance. For example, there were a few cases where managers stated how they disagreed with the way their organisation perceives CSR or that while they believed in green building practice, it has not yet been valued by their organisation as a focus or priority.

There are, however, limitations that may stem from social desirability bias that need to be considered. Some interviewees may believe that environmental practice is unattractive but feel that it is more acceptable to articulate their response in favour of the practice as it is a desirable norm. In this case, it is found that the order and flexibility maintained during the interview, and the phrasing of questions alleviated some pressure and created a dynamic in which interviewees were able to present their disagreement. Less favourable views of environmental practice were often presented in conjunction with justifications that stemmed from their Thailand's current market economy.

The discussion and analyses presented across the empirical chapters utilise data across all developers interviewed. A full analysis for each of the 44 developer interviews can be found in **Appendices 18 to 20**. However, the selection of interview quotes presented in the analysis and discussion in **Chapters Six to Nine** may draw more frequently from some developers in comparison to others due to a number of reasons. First, developers with green buildings are outliers

in this study; only nine of the 44 SET-listed developer firms have third-party certified buildings. In discussing the reasons behind developers' decisions to engage in green building practice and their characteristics, there is thus a limited pool of sources to draw from. Nonetheless, Onwuegbuzie and Leech (2007) suggest that studying the response of outliers in qualitative research can provide valuable insight. Second, for the rest of the firms, there is an overarching response where the majority of listed developers similarly agree on their position to engage with green building under certain conditions. In presenting the discussion and analysis of these findings, a series of quotes that best conveyed developers' expression on this matter were selected and incorporated in the presentation of findings. As a result, there may be multiple uses of quotes from particular firms.

### *Triangulation*

The second technique that serves to remove potential interviewee bias and aid the validation of this research is the design for the triangulation of data. Triangulating data from different sources is said to help demonstrate validity in the data as it helps to compare and contrast convergence in the data, identify contradictions, and substantiate claims (King, 1994). The research design for this study collects data from four major sources: the SET online database, corporate webpages, green building online databases, and the interview data from the fieldwork.

This process of data collection where most of the data are acquired from public resources and there is transparent evidence of the firm's statements of performance helps to substantiate claims that are made during the interview and the interviewees' credibility. For instance, in one of the interviews conducted, a developer claimed that green building has always been the firm's top priority. In triangulating the data with the firm's statement from a few years earlier – one that has been archived as part of the developer's public relations document helped validate the claim.

## **ETHICS**

Due consideration was given towards ethical issues throughout the conduct of this research. Research and fieldwork undertaken follow closely in the conformation of guidelines outlined by



the UCL Research Ethics Committee and the UK's ESRC Framework for Research Ethics. In conjunction with these guidelines, the conduct of this research has been approved by the UCL Research Ethics Committee under **Project ID Number 7715/001 (Appendix 10)**. A risk assessment of the fieldwork was completed by the researcher prior to the conduct of interviews, this was submitted together with the above ethics application for approval by the UCL Research Ethics Committee. The above research ethics framework addresses:

- The quality and integrity of the work being conducted;
- Informed consent that has been sought;
- The privacy and confidentiality of the storage, treatment, and dissemination of the empirical data;
- Voluntary participation;
- Minimisation of risk and avoidance of harm to the participants and to the researcher during the conduct of fieldwork; and
- The independence of the research.

Drawing on these together with Allmark et al.'s (2009) commentary on ethical issues with the use of in-depth interviews, particular consideration was given to ensure informed consent, confidentiality, and avoidance of harm during the conduct of Phase II of the fieldwork.

- ***Informed consent***

During the fieldwork, participants were provided with an information sheet and required to complete a consent form to demonstrate their agreement to the conduct and recording of interviews (**Appendix 8**). Ethical considerations were taken in line with the above frameworks, and participants were informed in the Information Sheet that their consent is voluntary; they are able to withdraw from the interview at any time; and their interview transcripts will be used anonymously and solely for academic purposes. Participants were thus given the option to not take part in the study, to not consent to the recording of the interview, or to interrupt the research at any time.

- ***Privacy and confidentiality***

A key risk in conducting interviews is the disclosure of information from breach of confidentiality (Allmark et al., 2009). In order to minimise and avoid this risk, all personal data was carefully stored and managed confidentially with password-protected access.

Interview respondents might find questions related to their organisational practice or personal views on green building practice sensitive or private as this may disagree with Thailand's social and industry norms, show inadequate knowledge of the subject matter, or reveal classified information. Under these circumstances, the interviewee is always given the option of not responding to such questions. Interviewees are also reassured during the conduct of interviews that all responses will remain anonymous throughout the dissemination of results, including any future conferences or publications.

As Thailand does not currently have any specific statutory law governing data protection or privacy (Thomson Reuters, 2015), data protection is compliant with the UK Data Protection Act 1998 and the general data protection framework provided by the Constitution of the Kingdom of Thailand and The Thai Civil and Commercial Code.

- ***Avoiding harm***

To avoid potential physical harm that may be caused to the interviewee or the researcher (Allmark et al., 2009), the interviews conducted during Phase II of the fieldwork were scheduled in advance to take place indoors at a formal workplace or an equivalently safe environment. 14 of the interviews conducted took place at the respondents' respective office buildings; six interviews took place over the telephone and two interviews at well-established restaurants with other customers and restaurant staff nearby.

To avoid potential psychological harm (ibid), the interviewer remained attentive to any distress the interview may be causing to the interviewee and was prepared to interrupt or stop the interview at any time.

## **RESEARCHER POSITIONALITY**

Researcher positionality is referred to as the researcher's self-reflection on their position as an individual and the influences that this may have on the research task (Savin-Baden and Major, 2013; Holmes, 2014; Qin, 2016). This ties in closely with reflexivity (ibid): conditions for the researcher to critically reflect on their worldviews, experiences, and how this shapes the processes and outcome of the research. Positionality is essential for qualitative research (Corlett and Mavin, 2017) as there are fundamental assumptions that can stem from the social-historical background of the researcher (Holmes, 2014), their paradigmatic and philosophical positions that can cause bias and partisanship in the acquisition and interpretation of research findings (Sikes, 2004; see also Holmes, 2014).

Addressing positionality at the time this research is undertaken adds to the rigour and confidence this research will have in presenting its findings (Sikes, 2004). Savin-Baden and Major (2013) say that positionality can be addressed by locating the researcher in relation to the subject, the participants, and the research context. Leading up to the empirical chapters that present and discuss findings on Bangkok's private developers' engagement in green building practice, I reflect on my positionality and the implications this may pose on the empirical investigation in two major areas: first, on my position as a young researcher conducting in-person interviews with senior and top managers in the Thai property industry; second, on my personal worldviews that stem from my upbringing in Bangkok and its socio-political climate.

- ***Conduct of in-person interviews***

Thailand and its culture are said to be one with low levels of individualism, the majority being a collectivist society (Pimpa, 2012). Loyalty is paramount in Thai culture and gives rise to strong

cohesive relationships where ‘everyone takes responsibility for fellow members of their group’ (p.36). ‘Doing the right thing according to the group’s standard’ is nothing less than perfect (ibid): most are concerned with how others think about their actions and tries to ‘gain respect’ by acting in ways that meet expectations of individuals around them. The culture is one where conflict avoidance is key. Standing out from the group ‘can bring dissatisfaction or bad reputation’ (ibid) to the individual as they may be seen as a ‘threat’ by the group.

The dynamics of power relations in the Thai culture and the society shape much of the large power distance seen in Thailand’s organisational culture (e.g. Chompookum and Derr, 2004; Pimpa, 2012). Inequality is accepted as a norm where the inferior is determined by their lower position in the social hierarchy. Those that do not resume leadership roles are inclined to humbly accept their positions and would consider organisational leaders as their ‘controller’ rather than their colleague (Pimpa, 2012). These dynamics can be seen to affect the position that the researcher – as a born and raised Thai – resumes in the conduct of interviews with senior and top managers from the developer firms.

During Phase II of the fieldwork, great care has been taken to conduct interviews with top managers with the utmost respect. ‘Respect’, however, in the Thai context can also equate to and result in the diversion of challenging questions to avoid conflict. Those that can be seen to challenge the interviewee’s belief as well as industry norms can be considered disrespectful. In cases where the researcher interviewed managers from developer firms that are lacking in or unsupportive of green building projects, the interview questions are rephrased to enquire the managers’ views in a more indirect or subtle manner. Empirical data is obtained accordingly to the research framework, but this can imply that the researcher remained more complaisant to interview responses. That is, the researcher is more likely to accept the responses as-is and maintain a less rigorous approach in probing interviewees further.

Green building is also a sensitive subject area in itself as there is a common understanding in the Thai property and construction industry that green building represents good but unachievable and

impractical practice. These assumptions may delimit the interviewees in sharing their honest and/or entire opinions on the subject where their views differ substantially from that of their colleagues, corporate culture, or industry norms.

- *Researcher's experience and worldviews*

Regarding influences from the researcher's own worldviews and experience, there are elements from the researcher's upbringing in Thailand and previous industry experience as a green building consultant in Bangkok that may affect the interpretations of the empirical findings. First, the position of the researcher is one that is steered more towards the foundations of individualistic models of behaviour; one that is more critical of the role of agency as opposed to the social structure in which processes and practices take place. In this regard, this research has been framed to explore the psychological factors that influence top managers and their decisions in the development process where these are discussed in terms of developer 'behaviour' and less about property development as a 'practice'.

However, while the framework of this research is established through these lenses, the later chapters in this thesis (**Chapters Nine and Ten**) also draw on the wider sociological implications. Throughout the course of this research, the researcher has transitioned between individualistic and socio-structural framings of the subject (i.e 'individual behavioural framing' of the problem vs. 'sociological framing' of the problem – see Wilson and Chatterton, 2011). This in itself can be seen as a weakness in the overall framing of this research as it does not root itself deeply in either of the two ontological assumptions. The strength, in hindsight, is its effort to connect and reconcile the two in its discussion and analysis.

There is then the lack of planning regulations (as will be discussed in the next chapter) and the lack of public environmentalism in Thailand (Panya and Sirisai, 2003) that may also lead the researcher to hold more critical and cynical views on the industry's response to environmental practice and

the intent of Bangkok's developers' corporate behaviour in general. This may be congruent to what Adams et al. (2010) defines as high levels of 'corporate distrust' gathered over time.

The researcher shares a common understanding with many others that are raised or have lived in Bangkok over a period of time that the environmental agenda in Thailand has always been given low priority by Bangkok's public, its building construction industry, and government institutions. Despite the country's philosophy to maintain a 'sufficiency economy' (Mongsawad, 2012), there are waves of policies and schemes issued by the government that contrasts much of this vision. Take, for example, the 'first-time car buyer programme' that was launched by the government from 2011 to 2012 (Attavanich, 2017). The programme offered a 10 percent tax-rebate on vehicle price for first-time buyers. It was framed as assisting the lower to middle-income population's burden in purchasing an essential, their first car (Cabinet Office, 2011, p.7). By the end of the programme, 1.26 million new cars registered where up to 30% added to Bangkok's already congested roads. Attavanich (2017) evaluated the first-car buyer programme to find that it posed great environmental costs to air pollution in Bangkok and that design of public programmes and policies should be more attentive towards evaluation of the resulting environmental outcomes and impact on society.

To this end, the socio-political climate and experience the researcher has been exposed to may lead to more critical and cynical views of Bangkok's industry responses to green building and environmental practice. More explicitly, higher levels of distrust can lead the researcher to read more attentively into negative externalities. On the other hand, a better understanding of the culture and industry landscape helped the researcher to connect and position the findings better in the wider socio-political discussions.

## **LIMITATIONS**

In conjunction with the above, there are also limitations to be acknowledged in relation to the selected research methods.

- *Data Collection*

There are certain limitations concerning the use of documentary sources and interviews as the primary means of data collection. There may be bias in the selectivity of documents (Bowen, 2009). Organisational documents can be considered as fragmented and subjective; it may not be an authentic or accurate representation of processes or the life of a particular organisation. Certain documents that are made accessible to the public may be published for other ulterior motives rather than to truly represent actual events that take place. This is accounted for through the triangulation of data between documentary and interview sources so as to alleviate the bias in organisational documentation as best possible.

The use of qualitative interviews may cause instances where the researcher is unable to draw out the intended information from the interviewee (King, 1994). Findings in this study depend on securing the 'right' respondent for the interview; that is, an interviewee that holds a top managerial (or decision-making) position. This can be difficult to arrange. In the case that an interview could not be arranged with a top manager, the study proposed that an alternative member of staff within the organisation was interviewed instead, with questions rephrased accordingly to enquire about their understanding of the top managements' views.

- *Data Analysis*

One of the most significant downfalls to the use of thematic analysis is that it is capable of generating a broad range of analyses which may be difficult to manage (Braun and Clarke, 2006). Its flexibility, as much as it is an advantage, may be disadvantage to the research in this regard. Having large amounts of flexibility can create loose guidelines for the analysis which in turn makes it difficult for the researcher to determine what aspects of the analysis to focus on (Braun and Clarke, 2006). The situation may be even more overwhelming with the use of qualitative interviews as it is similarly capable of generating a large amount of potential data to be analysed which can cause the research to lose focus (King, 1994). To account for this, the research utilises and adheres closely to its proposed framework and the eight psychological AoIs (outlined in **Chapter Three**).

These lessened issues of flexibility and the lack of guidance to analytic concepts during data analysis, and enabled a coherent set of interpretations to be formed in response to the research question.

Further, the empirical investigation positions top management as holding the primary role in steering the organisation. To this end, it disregards the role that other members of staff can have on organisational decisions. The case of Thailand supports this because of its organisational culture and power dynamics (Chompookum and Derr, 2004; Pimpa, 2012). The study acknowledges the limitations to the replicability of this research that is posed by underlying assumptions of the proposed framework.

The next section introduces the case study of Bangkok and the 44 listed developers in more detail leading up to the empirical evidence in **Chapters Six, Seven, and Eight**.



# Chapter Five

## The Case of Bangkok, Thailand

Leading up to the empirical investigation and analysis, this chapter provides a closer look at Bangkok as a case study. The chapter is divided into four sections: the first focuses on providing an overview of Bangkok and its patterns of urbanisation. The second, in connection to the first, outlines the privatisation of the property market in Bangkok and the dominance of large property developer firms publicly listed on the Stock Exchange of Thailand (SET) – the targeted respondents in this research. The third provides an overview of the type of development activity and properties undertaken by the SET-listed developers. And finally, the fourth provides an overview of green building activity in Bangkok, highlighting the related history, policies, and types of green building projects constructed by nine of the 44 SET-listed developers.

### BANGKOK: ‘CITY OF ANGELS’

Bangkok is the capital city and only metropolis in Thailand (**Figure 11**). To locals, it is known as *‘Krung Thep Maha Nakhon’* which translates in Thai to ‘City of Angels’. Bangkok is located in the centre of Thailand, covering an area of 1,569 sq.km. with an estimated population of 8.3 million and a density of 5,300 per sq.km (NSO, 2010). The city in terms of size and population is comparable to that of Greater London where land area, population, and density are reported at 1,572 sq.km., 8.7 million, and 5,590 per sq.km.



*Figure 11 Map showing location of Bangkok*  
*Source: Alamy Stock Vector/ Rainer Lesniewski*

As the only metropolis in Thailand, Bangkok is considered a prominent example of what the literature considers a 'primate city' – one that serves as a single unrivalled political and financial centre of the country (see e.g. Browder et al., 1995). The city is home to 13% of the country's population and represents 56% of the urban population. It is said to attract the labour workforce from all over the country and its population is said to rise by up to 15 million during the day as a result (World Population Review, 2019a). As a result of the country's economic boom in the late 80s, job opportunities in the private sector and educational attainment grew rapidly and formed the foundations for Bangkok's large middle and upper-class population (Shiraishi, 2004; Shiraishi, 2006).

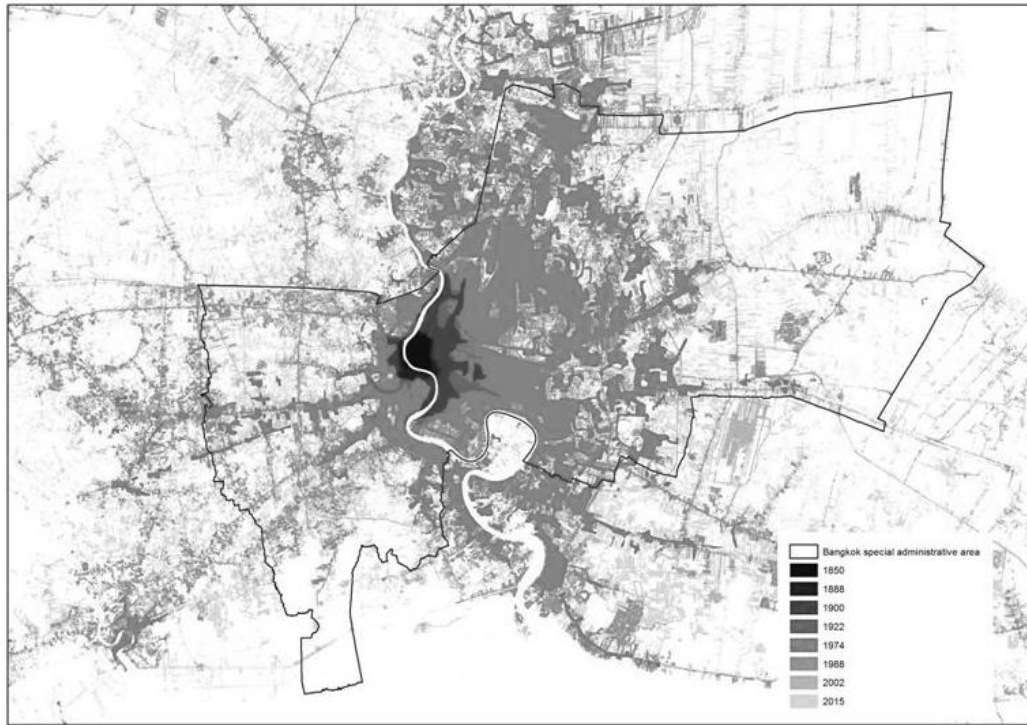
The income per person in Bangkok triples that of the national average and is nine times the average of Thailand's Northeast region (Hays, 2008). Wide wealth gaps have been reported between Bangkok and Thailand's rural areas in the past (e.g. Funatsu and Kagoya, 2003; Hays, 2008; About Thailand Living, 2018). Although inequality in Thailand has been seen to have subsided in the past (World Bank, 2019), most recent news sources have reported Thailand's inequality as one of the highest in the world (Bangkok Post, 2016; Lindsay, 2019), with the top 1% controlling 66.9% of the country's total wealth (Bangkok Post, 2018b).

Bangkok's pattern of urbanisation and urban environment has been heavily influenced and shaped by the private sector over the past decades. To understand Bangkok's market-led urbanisation, the city's economic and political history are considered. Bangkok was founded as Thailand's capital city in 1782 initially serving as a customs outpost as its location is near the mouth of the river. The local economy expanded through international trade overtime with Chinese and Western merchants, and the city rapidly grew in the late 1900s. At the time, Thailand's economy transitioned from an agrarian economy to an industrial economy through post-war industrialisation (Phongpaichit, 1996). Bangkok's population was only estimated at 50,000 or less in 1822. By 1960, the city's population grew to 3 million; and by 2000, it was reported at 6.3 million (UN DESA, 2019; World Population Review, 2019a; World Population Review, 2019b).

From 1985 to 1994, Thailand was seen by the World Bank as one of the ‘world’s fastest-growing economy’ (Phongpaichit, 1996). Bangkok’s economy grew, and the city continued to expand rapidly with it until the Asian Financial Crisis in 1997 (**Figure 12**). Growth slowed down after the crisis, but by 2010, Bangkok had already accounted for nearly 80% of Thailand’s total urban area. It is the fifth-largest urban city in East Asia by area (World Bank, 2015) and the third-largest by population in Southeast Asia after Manila and Jakarta (ASEAN UP, 2017). By 2030, it is expected that Bangkok’s population will surpass 10 million, joining others in becoming part of the world’s megacities (World Population Review, 2019a).

Although Bangkok grew in the 80s it was with ‘very little urban planning or regulation’ (ibid), this strained the city’s infrastructure and environmental conditions (**Figure 13**); most notable are the social and environmental problems caused by traffic in the city (see Poboorn, 1997). Bangkok has been called out as an example of a developing city that is urbanising in an unsustainable way (Evans, 2002; Phdungsilp, 2010), ‘...having among the most rapidly degraded and severely deteriorated urban environments in the world’ (Evans, 2002, p.36). This trajectory seems unchanged as recent reports show the city’s air pollution level at PM2.5; hazardous to the point of being the world’s third worst in air quality (Wancharoen, 2020).

The city’s lack of systematic and enforced planning has caused market forces to take charge, driving the city’s economy and urban development (Browder et al., 1995). Land-use zoning is used as a primary tool in Bangkok’s planning system but has been described as being there for regulation and less for active development (urbanalyse, 2012). Building and construction activities in the city are driven by the private sector, primarily by large-scale developers (Browder et al., 1995). To date, Bangkok’s private developers remain a dominant force in shaping the city’s urban landscape and future patterns of urbanisation. High-rise condominiums, office buildings, and gated communities have been rapidly constructed and delivered in large volumes by some of the largest private developers in recent years.



**Figure 12** *Bangkok's urban growth 1850 - 2015*

*Source: Adapted from LSE Cities (2017)*



**Figure 13** *Aerial view of Bangkok's roads and building infrastructures*

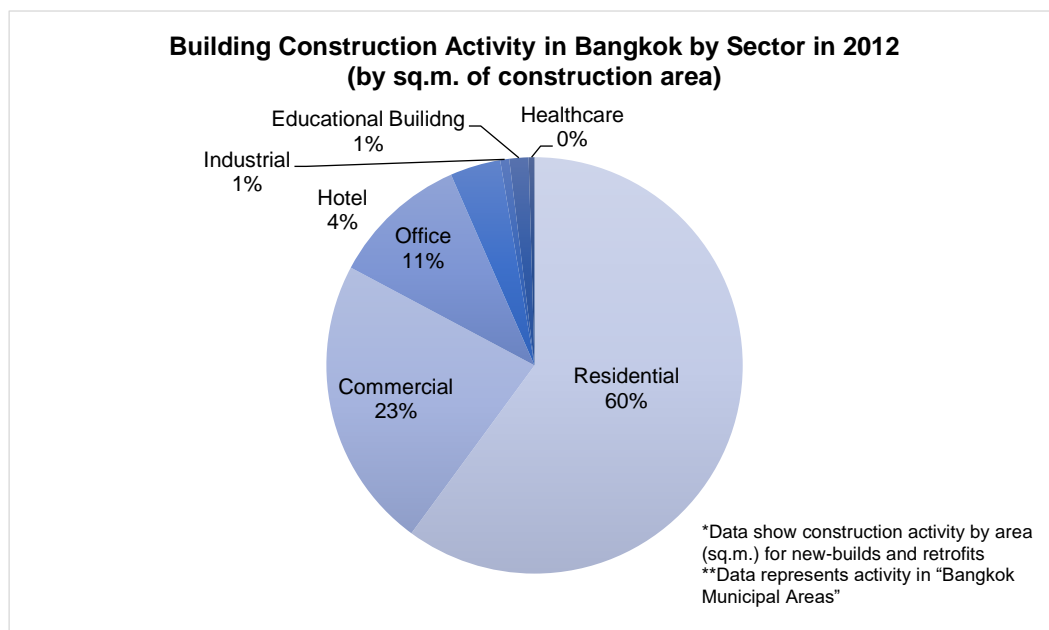
*Source: Adobe Stock/ drev011*



## TRENDS IN PRIVATE PROPERTY DEVELOPMENT

Bangkok's lack of authoritative planning system has led to extensive market-led development over the past decades, carried out by the city's largest private developers (Browder et al., 1995). Large-scale developers hold prime responsibility in the development of residential properties and commercial buildings (particularly office buildings) in the city.

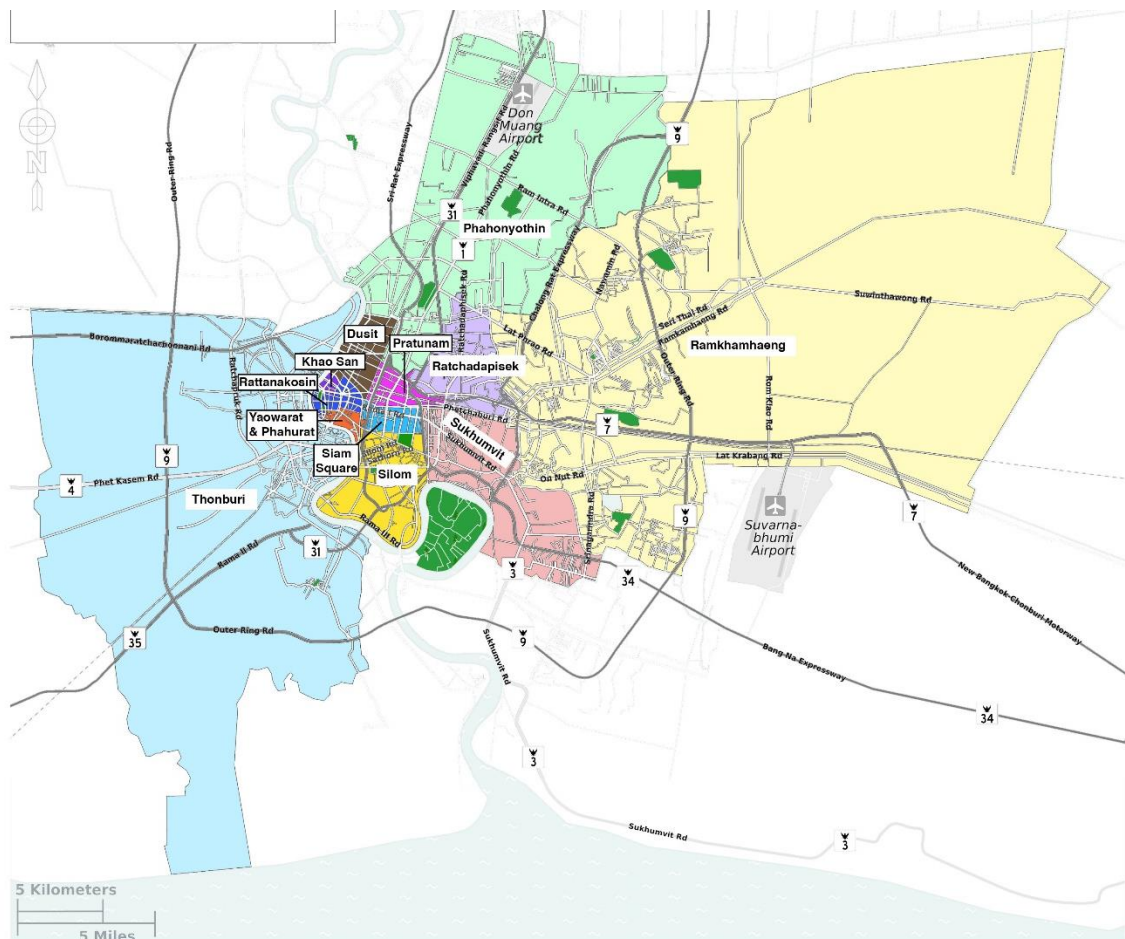
Up to 40% of Thailand's building construction activity takes place in Bangkok, with residential and commercial properties significantly outnumbering other types of projects. The figures provided by Thailand's National Statistical Office (NSO) show that over 60% of building construction activity (new builds and retrofits) in Bangkok are for residential properties; 34% are for commercial properties of which 11% are office buildings. Hospitality projects represent 4% of building construction activity, while healthcare, educational, and industrial properties all represent less than one percent of construction activities (**Figure 14**).



**Figure 14** Building construction activity in Bangkok by sector in 2012

Source: Compiled by the Author from NSO (2013)

Bangkok is composed of 50 official districts under the Bangkok Metropolitan Administration (BMA). However, the city can be better understood and characterised as having 11 main neighbourhoods; most of which can be described as located within the inner-city region (**Figure 15**). Bangkok’s central business district (CBD) has moved from the historical areas of Rattanakosin-Yaowarat – where commercial activities used to take place near the riverbanks<sup>11</sup> - to the modernised office district of Silom. Most recently, Bangkok’s CBD is said to be expanding into northern parts of Sukhumvit following the initial operation of the skytrain and subway systems in the early 2000s.



*Figure 15 Map of districts in Bangkok*

*Source: Produced by Author based on Wikitravel (2019)*

<sup>11</sup>Yaowarat is still home to Bangkok’s Chinatown today.

Most of Bangkok's private development activities are said to be concentrated around the mass transit corridors and this trend is projected to continue over the next 20 years (urbanlyse, 2012). The BMA's plan to extend its train systems to the outer regions and neighbouring provinces have led private developers to seek for new plots of land near future stations. Areas surrounding transport nodes are now prime areas for property development where new residential and commercial activities are expected to take place. However, rising land prices and scarcity of freehold land in prime locations may also cause developers to reach out beyond these areas to secure development opportunities (CBRE Thailand, 2018a).

Trends in residential property development have shown a surge of high-rise condominiums being launched into the market (**Figure 16**); the highest peak was in 2013 where over 80,000 units were launched (CBRE Thailand, 2018a). Although the number of condominiums developed has slowed down since then, development activity is still considerably high compared to other developing Southeast Asian cities. From 2014 to 2016, an average of 40,000 condominium units, and in 2017, slightly over 60,000 units were launched (urbanlyse, 2012; CBRE Thailand, 2018a). These figures are still more than Hanoi's average of 35,000 units and central Kuala Lumpur's launch of 2,500 units in 2017; as well as Phnom Penh's all-time highest condominium spike of 35,000 units that was forecasted for 2020 (CBRE-WTW, 2017; CBRE Research, 2018; CBRE Research, 2019). It is reported that Thai residential property developers are also teaming up with foreign partners in the form of joint ventures and marketing their condominium projects offshore (CBRE Thailand, 2018a).





*Figure 16 Bangkok's high-rise condominiums*

*Source: Adobe Stock/ supaporn*



*Figure 17 ICON SIAM – Mixed-use shopping complex*

*Source: Adobe Stock/ naruecha*

Development activity in the commercial sector is much slower. CBRE Thailand (2018a) reports that there is 'steady demand' with 'limited new supply' for downtown office buildings and expects this to be the trend for the next few years. The total amount of office space in Bangkok is reported at 8.8 million sq.m., with approximately 200,000 sq.m. added each year to the existing stock (a typical office building located in Bangkok's CBD usually has a total lettable area of around 30,000 to 50,000 sq.m.).

Activity in the retail property sector has also stagnated. Bangkok is reported to currently have a total of 7.36 million sq.m. of lettable area of retail space at the end of 2017, a 100,000 sq.m. increase from the year before. Development of retail properties is said to have slowed down because of the city's adoption of e-commerce models (CBRE Thailand, 2018a). Nonetheless, there is expected to be an increase of 500,000 sq.m. in the supply of lettable retail areas in the upcoming years from a few large-scale projects. This figure accounted for the construction of a 750,000 sq.m. riverside mixed-use retail mall (**Figure 17**) and the second IKEA store in the city which were recently completed.

### **LARGE PRIVATE DEVELOPERS AND THE OLIGOPOLY**

Bangkok's current real estate market can be described largely as an oligopoly. In typologising industry structure in real estate, Coiacetto (2009) defines an oligopolistic market as one that is dominated by a few large firms; with certain differentiation in product characteristics. Barriers to entry are said to be high in this sort of market, and a unique feature of an oligopolistic market structure is the firms' need to 'keep themselves in the eye of the consumer' or increase market share through branding and 'heavy advertising, promotions, [and] gimmicks' (p.119).

Coiacetto (2009) explains that there has been 'little interest' and little is known about the development industry structure. The development industry is often portrayed as being either highly competitive or oligopolistic. 'Highly competitive' being one with hundreds of small developer firms operating within a region with each representing a small portion of the market share. 'Oligopolistic' being one dominated by a few 'large, rich, powerful and ruthless' players (p.125).

In his paper, Coiacetto (2009) draws on existing literature and case study material (mostly from Western regions) to conclude that the development industry is not always competitive but can be highly oligopolistic or even monopolistic at times.

Similarly, there is limited literature that can be found investigating the development industry structure in the Far East. There is scholarly material on Bangkok's real estate industry structure during the property boom leading up to the 1997 Asian financial crisis (see e.g. Sheng and Kirinpanu, 2000; Renaud, 2015 – **Chapter One**) that describes the Thai real estate market structure as part of the account of the country's political and financial economy. During this period, with the national economy flourishing and expansion of urban areas the Thai development industry was highly competitive; those with capital invested in developing properties. Most were small-scale developer firms, of which most were family-run and lacked formal experience and training.

The economic landscape has since changed and the real estate market in Bangkok today is transforming into a high oligopoly. In 2013, it was reported that ten of the country's largest developers accounted for up to 45% of Bangkok's property market share; with market leaders holding up to 8% of market capitalisation (Srimalee, 2013). This represents an overall market value of THB 357 billion (GBP 8.9 billion). In 2018, a similar trend was reported with the top ten firms leading Bangkok's property market with a share of 59% of the value of units launched in the first half of the year (S. Pornchokchai, 2018). The top five firms in 2018 represented up to 39% of the total value of units that were launched (ibid).

Bangkok's 'largest developers' – alluding as well to the majority that makes up the abovementioned 'top ten' developers – is usually a depiction of a property company listed on the SET. These large developer firms are privately owned, often with a history of Thai-Chinese family ownership whose business have secured them a place among the country's wealthiest elites. A number of Bangkok's largest developers transitioned from other industries (not limited to these are energy, media, food and beverage, etc.) to real estate more recently, while others branched out from property to owning subsidiaries in other industries.

Developers listed on the SET are guaranteed to be financially secure, large in size, and have been trading for over a number of years. As part of the requirement to be listed on the SET, companies have to show that they have a paid-up capital after their initial public offering of more than THB 300 million (approx. GBP 7.5 million). They also have to prove that they have been trading for more than three years and have made a net profit of more than THB 50 million (GBP 1.2 million) in the last few years. There are other listings that the market offers for companies that do not meet these conditions<sup>12</sup>.

Larger developers are seen to be capable of acquiring larger funds and partnerships for new projects (Find Thai Property, 2016; Bangkok Post, 2018b). It is also known that at times leading developers are given low-interest loans to facilitate development (see e.g. Sheng, 2002) and local buyers prefer to buy from publicly listed developers as they are seen as more ‘trustworthy’. Kongmalai (2015), for instance, reports high uptake of condominiums developed by Bangkok’s listed developers; some of which sell out within days of being launched. As a result, large private developer firms are ‘dominating’ the property market (Pathnadabutr, 2012; BKKCONDOS, 2013; Batt, 2015; Find Thai Property, 2016; Bangkok Post, 2018b), with their financial position posing a barrier to entry for smaller firms (see also S. Pornchokchai, 2018).

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<sup>12</sup> E.g. Thailand’s Market for Alternative Investment (MAI) for companies with paid-up capitals over THB 20 million (GBP 496,000) that may have been operating for less than two years.

The 44 SET-listed private developers in Bangkok at the time this research was initiated is listed in **Table 3**. The type of development activity most prominently undertaken by the 44 developers enables them to be classified into four different groups:

- **Residential developers (16 of 44 organisations; 37%)**

The type of development undertaken by this group of developers can be broadly categorised as high-rise condominiums, townhouses, and detached or semi-detached houses. The latter two are usually located in gated communities. **Figure 18** shows some of the most recent and near-future residential projects delivered by Bangkok's SET-listed developers.

- **Commercial developers (6 of 44 organisations; 14%)**

Commercial developers often focus on high-rise office buildings, large-scale shopping malls, and mixed-use complexes. Commercial developers tend to develop their properties to lease out the floor space and often still own and manage the building. Some of Bangkok's most renown commercial buildings carried out by the listed developers include the Platinum Fashion Mall (Thailand's largest fashion mall – a six-storey complex with an 11-storey condominium above); Mega Bangna Shopping Mall (a 35,000 sq.m. low-rise shopping mall – one of the largest in Southeast Asia); and Park Ventures Ecoplex (a LEED Platinum-certified 34-storey mixed-use complex).

- **Industrial developers (3 of 44 organisations; 7%)**

Industrial developers focus on industrial and logistics properties such as industrial estates, warehouse, and distribution centres. Industrial developers are registered companies in Bangkok, but their development projects are usually located in industrial zones outside the city. Listed developers that belong to group are some of Thailand's leading developers in industrial real estate. Amata Corporation for instance owns 7,033 hectares of industrial estate in Thailand which are occupied by thousands of factories from over 20 different countries (Amata Corporation, ca. 2018).

- **Mixed developers (19 of 44 organisations; 43%)**

Mixed developers deliver a variety of projects that spans across residential, commercial, industrial as well as hospitality sectors. Typologies of projects could overlap with any of the above three.

	1	AREEYA PROPERTY PUBLIC COMPANY LIMITED
	2	AP (THAILAND) PUBLIC COMPANY LIMITED
	3	BAAN ROCK GARDEN PUBLIC COMPANY LIMITED
	4	EASTERN STAR REAL ESTATE PUBLIC COMPANY LIMITED
	5	EVERLAND PUBLIC COMPANY LIMITED
	6	K.C. PROPERTY PUBLIC COMPANY LIMITED
	7	LALIN PROPERTY PUBLIC COMPANY LIMITED
<b>Residential developers</b>	8	LAND AND HOUSES PUBLIC COMPANY LIMITED
	9	L.P.N. DEVELOPMENT PUBLIC COMPANY LIMITED
	10	ORIGIN PROPERTY PUBLIC COMPANY LIMITED
	11	PROPERTY PERFECT PUBLIC COMPANY LIMITED
	12	PREECHA GROUP PUBLIC COMPANY LIMITED
	13	PRINSIRI PUBLIC COMPANY LIMITED
	14	PRUKSA REAL ESTATE PUBLIC COMPANY LIMITED
	15	QUALITY HOUSES PUBLIC COMPANY LIMITED
	16	SANSIRI PUBLIC COMPANY LIMITED
	17	JAS ASSET PUBLIC COMPANY LIMITED
	18	MBK PUBLIC COMPANY LIMITED
<b>Commercial developers</b>	19	THE PLATINUM GROUP PUBLIC COMPANY LIMITED
	20	PRINCIPAL CAPITAL PUBLIC COMPANY LIMITED
	21	SIAM FUTURE DEVELOPMENT PUBLIC COMPANY LIMITED
	22	UNIVENTURES PUBLIC COMPANY LIMITED
	23	AMATA CORPORATION PUBLIC COMPANY LIMITED
<b>Industrial developers</b>	24	ROJANA INDUSTRIAL PARK PUBLIC COMPANY LIMITED
	25	TICON INDUSTRIAL CONNECTION PUBLIC COMPANY LIMITED
	26	AQ ESTATE PUBLIC COMPANY LIMITED
	27	CHARN ISSARA DEVELOPMENT PUBLIC COMPANY LIMITED
	28	GOLDEN LAND PROPERTY DEVELOPMENT PUBLIC COMPANY LIMITED
	29	GRAND CANAL LAND PUBLIC COMPANY LIMITED
	30	KEPPEL THAI PROPERTIES PUBLIC COMPANY LIMITED
	31	MAJOR DEVELOPMENT PUBLIC COMPANY LIMITED
	32	M.K. REAL ESTATE DEVELOPMENT PUBLIC COMPANY LIMITED
	33	NOBLE DEVELOPMENT PUBLIC COMPANY LIMITED
	34	NUSASIRI PUBLIC COMPANY LIMITED
<b>Mixed developers</b>	35	PACE DEVELOPMENT CORPORATION PUBLIC COMPANY LIMITED
	36	RICHY PLACE 2002 PUBLIC COMPANY LIMITED
	37	RAIMON LAND PUBLIC COMPANY LIMITED
	38	SINGHA ESTATE PUBLIC COMPANY LIMITED
	39	SAMMAKORN PUBLIC COMPANY LIMITED
	40	SC ASSET CORPORATION PUBLIC COMPANY LIMITED
	41	SENADEVELOPMENT PUBLIC COMPANY LIMITED
	42	SUPALAI PUBLIC COMPANY LIMITED
	43	THAI FACTORY DEVELOPMENT PUBLIC COMPANY LIMITED
	44	U CITY PUBLIC COMPANY LIMITED

**Table 3** List of Bangkok's SET-listed developers in 2015

Source: SET (2015)





**RHYTHM EKKAMAI ESTATE**  
**AP (Thailand)**  
 Condominium – 303 units | Location: Sukhumvit  
 Starting price: THB 6,673,000 | Completion in 2021



**NOBLE STATE 39**  
**Noble Development**  
 Condominium – 352 units | Location: Sukhumvit  
 Starting Price: THB 9,094,000 | Completion in 2022



**XT HuaiKhwang**  
**Sansiri Public**  
 Condominium – 1,405 units | Location: Ratchadapisek  
 Starting Price: THB 4,397,000 | Completion in 2021



**The Room 38**  
**Land and Houses**  
 Condominium – 229 units | Location: Sukhumvit  
 Starting Price: THB10,468,000 | Completion in 2018



**Chapter One Flow**  
**Pruksa Real Estate**  
 Condominium – 385 units | Location: Thonburi  
 Starting Price: THB 4,285,000 | Completion in 2021



**PITI Ekkamai**  
**Sena Development**  
 Condominium – 879 units | Location: Sukhumvit  
 Starting Price: THB 5,079,000 | Completion in 2021

**Figure 18** Examples of condominium projects in Bangkok by SET-listed developers 2018-2021

Source: Thailand-Property (2018)

## **LAND, STAKEHOLDERS, AND FINANCING OF DEVELOPMENT ACTIVITY**

Introduced in **Chapter Two** was the fundamental role of land and capital as raw materials in real estate activity and the development process. It is thus equally important to outline the implications of Bangkok developers' processes in relation to land acquisition, tenure patterns, and financing in order to discuss the nature of their behaviour in the later chapters. In addition, it is also necessary to acknowledge the range of stakeholders involved in private development activity – particularly the role of actors (internal or external stakeholders, consultants, and experts) that may be involved in assisting developers' decision and engagement in sustainable practice. As noted, property development as an activity is complex and involves a wide range of actors inside and outside the firm (Ratcliffe et al., 2009). A review of the system through which Bangkok's private developers operate unveils certain mechanisms within the political and economic landscape which enable and reinforce their power and dominance in the market.

### **Land acquisition and tenure**

In Thailand, local private companies and national citizens are entitled to the freehold of land under the 1954 Land Code (for further reference see e.g. Feder and Onchan, 1987). The Land Code was the first legislation the country introduced to formalise land ownership in the form of property deeds. The two types of property deeds that can be obtained – the full-title freehold deed (also known as 'N.S.-4') and the 'certification of utilisation' ('N.S. -3' or 'N.S. -3K') – give legal authority that grant landowners the right to sell, transfer and mortgage their land. There are also no general restrictions to the use of land and the plot can be further sub-divided as per the owner's demand. For larger developments, construction permits (that are granted as per the city's zoning law), building codes, and Environmental Impact Assessment are required.

Foreigners are not allowed to own land whether through purchase or inheritance. Foreigners and foreign companies are however, permitted outright ownership to a condominium (apartment) unit as per the Thailand Condominium Act (1979). In this regard, foreigners may have co-ownership of land in common areas (e.g. building exterior, hallways, stairs, swimming pool), and ownership



of the unit in a form of rights to airspace. Nonetheless, the Act constitutes that foreign ownership of a single condominium is limited to 49% of the aggregate floor space of units. That is, more than half of a condominium project must be owned by a Thai national. The growing number of private developers in Bangkok can thus target foreign expats through market positioning in this regard. It is also important to note – albeit unaddressed in most of the literature – that the Thailand Condominium Act was enacted in approximately the decade leading up to Bangkok’s property boom and bust that ended in the 1997 Financial Crisis.

For local private developers, the right to private land ownership and regulations around construction activity enable them to acquire and develop land at unrestricted capacity – provided that they have means to secure the required financial resources. In the case where landownership is not acquired, developers may also seek to lease the land for terms up to 30 years from current landlords who may be private individuals, private entities, or even the Crown Property Bureau (see ODT, 2016). This is often the case for properties located at the core of Bangkok’s CBDs where most free plots of land have already been acquired and built. Because of their strong financial capacity, large developer companies are able to enter in negotiations with existing landowners, often prompting them to sell. Recent works by Moore (2015; 2018) evidences the nature of these transactions and the gentrification of the city very well; vividly documenting the consequences that land acquisition may pose on displacing lower-income households and local communities that may be dependent on renting from current landlords.

Private land ownership and land distribution under Bangkok’s economic landscape of polarity and income inequality has been – and is still – a part of recent political debate. Land conflicts in Thailand can be seen occurring in two different areas which arguably can be seen fundamentally rooted in the same agenda of inequality and power disparity. The first, which may be less relevant to the case of private developers and urban real estate, is on problems of encroachment and illegal occupation of public land. This primarily entails the inhabitation of forest and conservation areas such as national parks outside of the city by indigenous communities (usually prior to its formal declaration as forest reserves), but also the activism of local communities taken against large-scale

mining and infrastructure projects and companies that have resulted in ‘a series of disappearances and unexplained killings’ (ODT, 2016). Prominent cases have occurred in 2014, 2016, and more recently 2019, prompting the United Nations (UN) to declare them linked to ‘land activism’, where local activists that have taken lead to stand up and dispute against the actions taken by these large firms (e.g. palm oil companies, resort projects, mining projects) have either gone missing or found dead.

The second land conflict in Thailand concerns the rights to and distribution of agricultural land. During the period before the 1954 Land Code and the privatisation of landownership, the country’s land mostly belonged to the King. Under this form of governance, individual households were permitted the rights to agricultural land and were able to claim and inhabit land from the King for this purpose. Major reforms to privatise land that began in the early 90s and the 1954 Land Code ended up securing property rights to land in urban areas, especially for the country’s elites. The higher number of green areas in rural provinces also meant that a portion of the land was designated as national forest reserves, depriving local communities of any previous acquisition of land in these areas. Lower-income families (most of which were farmers in rural areas) suffered the most as a consequence of the land reform. In attempting to mitigate these circumstances, Thailand’s Democrat Party that came into power in 1992 after the protest and military crackdown earlier that year (a catastrophe known as ‘Black May’ or ‘Bloody May’) fought for a key policy to redistribute land to low-income farmers. The party’s Prime Minister, Chuan Leekpai, was the first to come into office without aristocratic or military backing, and the country was hopeful to be led by a democratic leader.

However, 32 months after being reinstated, the Democrat Party (not Leekpai personally) was accused of corruption regarding the land policy, and the intended ‘land redistribution’ became known as the ‘land scandal’. The news reported at the time that several wealthy Thai families in Phuket (Thailand’s largest island, and a popular tourist destination) had directly benefitted from the government’s programme. Land that was supposed to be redistributed to the poor was redistributed right back into the hands of the country’s most elite. It was reported that ‘among the

beneficiaries of land was the husband of a member of Parliament from the Democrat Party, which Mr. Chuan leads' (Shennon, 1995). Following the incident, a major coalition party withdrew from their position and denounced their endorsement of the land distribution policy. Leekpai later faced a no-confidence vote in the Parliament over the scandal. And after two terms in the office, the Democrat Party lost to Thaksin's government in the 2001 election. It was not until 2008, following the 2006 coup d'état and the dissolution of Thaksin's government that the Democrats were reinstated and their promise to assist 50 local communities in regaining their collective rights over land reform was revisited. The administration, however, once again fell through and failed to honour its commitment, and little was done to address the land situation (Chandran, 2018).

In 2016, two years after another coup d'état on the government led by Thaksin's sister and Thailand's first female Prime Minister, Yingluck Shinawatra, hundreds of protesters in Bangkok called for the junta to address land reform. On World Habitat Day, protesters marched from the UN Asia headquarters in Bangkok to the Parliament House demanding the 'government [to] fix the land problems and land rights of poor people throughout the country' (Satrusayang et al., 2016). It was reported as 'one of the biggest demonstrations' since the 2014 coup d'état (ibid). The battle for land rights continue with similar reports of protests taking place in 2018 (Chandran, 2018) and more recently in 2019 (Wipatayotin, 2019).

Issues surrounding private land ownership and its accumulative impact on the country's inequality remains an ongoing challenge for the kingdom. A substantial amount of land is still owned by the country's wealthiest individuals and is seldom redistributed to the lower-income population. The Bangkok Post reported that 80% of land in the country is owned by 20% of the population (Wipatayotin, 2019). Current measures dealing with land distribution are seen as merely being a 'symbolic' act and Thailand's land issue is 'a result of the lopsided structure of land ownership that reflects the widening disparity between rich and poor' (ibid). Through current modes of governance and policy mechanisms, land has become more of an abundant resource for the rich.

Under this scenario, there is more capacity for developers to negotiate the terms for leasing and buying of private land from the country's elites.

### **Financing**

As presented in the earlier parts of **Chapter Two** and the above, capital – in conjunction with land – is another fundamental material developers need to secure for their activity. Large developer firms in Bangkok are seen as having substantial leverage in their position and this boils down to their access to financing. While there is a limited and disaggregated account that explores the nature to which large private property firms in Thailand seek to acquire their funds for development activity, the following is a synopsis derived from the author's own fieldwork investigation in combination with the latest industry reports.

Overall, Bangkok's SET-listed developers operate on an amalgamation of their cash flow (i.e. investment generated via company shareholders), the acquisition of project-financing loans from commercial banks, and acquiring capital through the issuance of debentures. It is important to note that SET-listed developers are often not constrained to operate solely within the property industry. They may operate as a subsidiary of other well-established corporations or oversee a number of subsidiaries themselves. Thus their corporate network encourages shareholder investment and funding.

Recent news has also reported an increase in the number of debentures issued by listed developers in recent years. Developers often work with some of the country's largest commercial banks to issue debentures that they foresee may help them access the required capital to fund their current and upcoming projects and expand their business (Srimalee, 2014; 2019; Teerawin, 2018). Debentures serve as a preventive measure against increased interest rates from traditional bank loans as they are capped at 4% for developers (Srimalee, 2019); listed developers often issue debentures lasting anywhere between one to five years. In 2018, figures showed that 12 of the SET-

listed developers<sup>13</sup> had planned to secure a budget close to THB 100 billion (GBP 2.5 billion) to acquire land for their residential projects with an approximate THB 5 billion (GBP 123 million) in debentures planned (Teerawin, 2018). Srimalee (2019) further reports that issuance of debentures by property firms have seen close to a 20% increase from that in 2017. Debentures expiring in 2019 were worth a total of 568 billion of which 20% of the amount was issued by property firms (ibid).

Aside from the issuance of debentures, some of the listed developers have also turned to setting up property funds or Real Estate Investment Trust (REIT) certifications as other means of securing capital. Property Funds for Public Offering (PFPO) was launched from 2003 to 2013 as an investment vehicle by SET following the 1997 Asian Financial Crisis as a means to incentivise capital flow to real estate (Ratapana, 2017). In 2014, the property fund was expanded by a second real estate investment vehicle: the REIT scheme. Set up by SET on the basis of Singapore's REIT model, developers are able to set up trusts based on their current properties that are already generating revenue so as to offer trust units to the public for further investment. SET claims that through this scheme, members of the public are able to invest in real estate assets in smaller units without direct ownership. As for developers, any generated capital from REITs can then further be used by developers to fund new projects (SET, 2013).

Golden Land Property Development for example has been reported to start fundraising by offering REITs in 2015. They sold Sathorn Square, one of their LEED-certified office green buildings, in Bangkok's CBD to REIT with plans to list the company's REIT at THB 10 billion (GBP 247 million) in the second quarter of 2015. The company announced its aims to pursue REIT as a means to manage and pay-off some of its debts to lower its debt to equity ratio (Dhananaphorn et al., 2015). Listing of REITs became a popular channel for investment during the first few years that it was launched, with an exemplar of success set by Bangkok Land who launched the country's first REIT in 2014 worth GBP 474 million (ibid). Recent news reported a growing uptake of REITs

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<sup>13</sup> Land and Houses, Sansiri, Pruksa Real Estate, Golden Land Property, Ananda Development, Supalai, Origin Property, AP (Thailand), Raimon Land, Sammakorn, Sena Development, and Lalin Property

offered by Thai developers albeit lower dividend yields from the majority of the firms (Nguyen, 2019). Among the top performers in REITs, SET-listed developers are seldom mentioned but there are some outliers. For example, TICON Industrial Connection offered ‘the biggest industrial [REIT] in Thailand’ at the end of 2017, after successfully converting and merging three of their existing property funds into a single REIT (Languepin, 2017).

For others looking for even larger sums of investment, developers may look into undertaking a joint venture or foreign partnership. In recent years, SET-listed developers have worked in partnership with other large developers and construction firms based in neighbouring countries such as Japan and China in delivering some of the latest development projects (Kuvijitruwan, 2018). Reports suggest that Thai developers ‘teaming up with foreign companies not only gives [them] more ammunition to invest in new projects but also lets them capitalise on the know-how and the technology that their partners could offer’ (ibid). With the growth of Thailand’s CBD into a globalised hub for Southeast Asia in parallel to the BMA’s plan to extend mass transit lines, development opportunities are said to appeal well to foreign investors. The condominium market is reported as one of the most successful sectors to secure foreign investment because of its fast returns (compared to that of office buildings for example). It is also said that overseas investors actively seek local expertise in the financing and delivery of development projects in Bangkok.

The financing mechanisms behind Bangkok’s largest private developers alludes to their extensive access to the vast sum of capital required to rapidly deliver the growing amount of development activity in Bangkok and surrounding provinces. This explains their dominant position in the property market and market capitalisation, but also suggests the firm’s own autonomous behaviour in undertaking decisions in the development process. Unlike other countries where the governance structure behind the engagement of private developers in the urbanisation process is restricted to the state or key investors, the model in which Thai developers operate enables the firm to make independent decisions in the acquisition of land, capital, and the type of project they seek to deliver.

## Firm structure and governance

Property development is a complex set of activities, and this is due, in part, to the number of parties and actors involved in the process (Ratcliffe et al., 2009). In Bangkok, the corporate structure of the firm and network of listed developers can be seen to reinforce their dominant position in the market and the autonomy of their behaviour. It is therefore important to draw attention to some of these characteristics in order to foster a comprehensive discussion on their behaviour in practice. To fully depict this argument, a brief outline of the context to firm structure and ownership in Bangkok is presented together with current modes of governance behind large-scale private property development.

First, the behaviour of listed firms in Thailand is usually overseen and authorised by a group of directors – i.e. the firm’s ‘Board of Directors’ (BoDs). This is evidenced through the strong hierarchical organisational structure disclosed by the developer firms. These findings are later reinforced by the empirical evidence from the interviews, where top-down approach to the delivery of green building practice is highlighted (see **Chapter Six**). BoDs can be seen to authorise decisions and strategic directions of the firms. Although this may be subsequently informed or influenced by other divisions and actors in/outside of the organisation, the majority of overall ‘green light’ or approval and support of strategic decisions comes from the top. A typical example of the structure of a listed developer firm in Bangkok would be what the literature terms as a *mechanistic* or *bureaucratic* structure (see e.g. Hartzell, 2012) where authority in decision-making is retained in the hands of a few upper-tier managers. In this model of practice, company employees are expected to follow the decisions made by upper-level managers without ‘[questioning] their rationale’ (ibid).

This culture of corporate practice is said to reflect Thailand’s own cultural institution and social structure, where a culture of large power distance remains prominent (see e.g. Chompookum and Derr, 2004; Pimpa, 2012). Pimpa’s (2012) paper on organisational culture in Thailand captures and articulates these dynamics well. While the paper itself focuses on the investigation of organisational culture in the Thai public sector, there are excerpts from the piece that can be applied

to the culture in which the listed developer firms operate. Pimpa draws his analysis from Hofstede's cultural dimensions theory (see e.g. Hofstede, 2001 in Pimpa, 2012) to identify Thailand's large power distance culture as an environment in which 'superiors and subordinates consider each other as existentially unequal...[and] subordinates are expected to be told what to do' (Hofstede, 2001 in Pimpa, 2012, p.37). At large, inequality in Thailand is said to be 'accepted as a norm' (Pimpa, 2012, p.37) and often even appreciated provided there is a 'friendly atmosphere' to which these power relationships take place. Pimpa further articulates how Thai people – in the context of family, workplace, and society – are 'destined to be in the position to accept those who were born in the rich and powerful family' (ibid).

Key individuals on the listed developers' BoDs hints at how Thailand's elite culture continues to resonate in the governance of the firm. The nature of a publicly listed organisation may suggest that BoDs or majority shareholders are individuals chosen for their entrepreneurship and/or their financial resources. However, a closer look into the major shareholders and BoDs of the listed firms ties the company back to the diffusion of capitalism in the South East Asian (SEA) region where Chinese family-run firms expanded in the past. Most SET-listed developer companies have grown from smaller Thai-Chinese family-run businesses to listed firms on the stock market in previous decades. A large percentage of ownership and management authority continues to rest in the arms of some of these families – families that now form the country's wealthiest elites. Forbes (2020) list of *Thailand's 50 Richest* connects some of the country's billionaires to the SET-listed developer firms among other empires to which they own stakes in. For instance, Pruksa Real Estate, held by Pruksa Holding, founded by the Vjijitpongpun family in 1993, now owns more than 70% of the company. Thongma Vjijitpongpun, founder and Executive Vice Chairman, is ranked 25<sup>th</sup>. Bhirombhakdi family, ranked 15<sup>th</sup> on Forbes, owns more than 60% of Singha Estate. The list goes on, with Asavabhokin family, ranked 24<sup>th</sup> on Forbes, owns approximately 25% of Land and Houses; and Thailand's ex-prime minister Thaksin Shinawatra's family who own 40% stake in SC Asset are ranked 16<sup>th</sup> on Forbes top-50 in 2020. The listed developers' BoDs often comprise of at least one representative from the family. For instance, in the case of SC Asset, the CEO is currently Thaksin Shinawatra's son-in-law.



The nature of Thailand's firm structure and ownership of listed companies reiterates the dominance and power of the enterprise culture and the extent to which the country's wealthiest individuals influence and shape the country's urbanisation process. In the property sector, the aforementioned SET-listed firms (p.165) only represent a part of the entrepreneurial manifestation. There are even wealthier individuals and families in Thailand that own large division of assets in the property market not captured in the 44 SET-listed firms. For example, listed as the number one on Forbes top-50 is the Chearavanont family that owns CP Group, 'one of the world's largest producers of animal feed and livestock' (Forbes, 2020). CP Group, which started off as a merchant trading imported seeds from China to Thailand in the 1920s, has expanded into real estate under CP Land in 1983 and Magnolia Quality Development Corporation (MQDC) in 1994. CP Land and MQDC are not listed on SET, but continue to have substantial projected growth in the country's real estate market (see e.g. Suehiro, 2017; Srimalee, 2018). It is recently reported that CP plans on investing an estimated THB 200 billion (GBP 5 billion) in upcoming residential, commercial, and retail properties in the next few years (Srimalee, 2018).

A second point to be made on structure and governance is how SET-listed developers' resource-stretching capacity entitles them to autonomous and independent behaviour. Relative to developers operating in other cities in the West where there is stricter municipal control over land ownership/acquisition and funding, SET-listed developers do not heavily rely on the permission of such key actors. Thailand's loose regulation around private land and property ownership in addition to the disparity of power-distance in its local culture permit the most dominant developers to secure, construct, and grow their empire without much contingency towards external demand. This pushes back the idea of over-reliance or compliance with the demands of a particular investor or government authority. Additionally, they generate strong financial capacity due to the nature of their venture where property may be merely another 'arm' extending from the umbrella of their numerous businesses that can provide additional financial resources, in addition to the perks of being a publicly listed company as previously mentioned. The autonomy of the firm in this regard strengthens the importance of the role that Bangkok's largest private developers play in

inaugurating sustainable urban development while also highlighting the potential importance of the leaders of the firms.

Being large firms, SET-listed developers also often operate with their own in-house architects and engineers. Developers may, however, outsource other real estate consultants to assist them with marketing and sales of their products; and collaborate with external contractors and construction firms to assist them during the construction phase of the project. For instance, in market research and sales/leasing of residential and office buildings, SET-listed developers can be found working with global real estate consultant giants such as CBRE, Colliers, Jones Lang Lasalle among others. With the construction of projects, SET-listed developers work with all scales of contractors. Supalai, for instance, reports how they actively seek to employ contractors of all scales - 'large', 'medium' and 'small' firms – noting how large firms offer better capabilities in terms of resource and equipment while small firms affords them more flexibility (Supalai, 2014, p.10). PACE Development Corporation on the other hand entrusted globally renowned Bouygues-Thai as the main contractor to deliver their leading project and Thailand's second tallest building, MahaNakhon – a 78-storey, 150,000 sq.m. mixed-use skyscraper (PACE Development Corporation, n.d.). Others, such as Pruksa, runs their own pre-cast facilities that they use for the construction of their condominiums (Katharangsiporn, 2016). According to the developer, this helps them reduce construction time (ibid) as well as enables them to exert control over the recycling content of construction material.

A number of developers are considering to diversify and expand their market into neighbouring regions, and they are well-positioned to do so, as they have access to largest contractors and established real estate consultants. Sansiri, for example, has stated in an interview that they are seeking to '[expand] internationally' pitching vacation homes to investors from Singapore, Hong Kong and China (Tan, 2017). Kongcheep (2017) reports how Thai developers have been pitching their projects at international roadshows to attract investment from foreign investors, and may even open up project sales in other countries before Thailand (see also Katharangsiporn, 2017).

Aside from attracting publicity and recognition, increased collaboration between SET-listed developers and foreign firms through joint ventures has also facilitated construction capabilities. Joint ventures have been reported to increase since the inauguration of the first projects implemented between the listed developers and Japanese developers in 2013 (Kongcheep, 2019). Interest has since extended to the markets in China and Hong Kong with most investing in condominium projects. It is also reported that the collaboration between Thai-foreign partnerships has aided the Thai developers' advancement of new construction technology, building design innovation, and other property business know-how (Katharangsiporn, 2017; Kongcheep 2018). Coupled with the BMA's ongoing investment to expand Bangkok's public transport infrastructure, most of the foreign join-partnership projects are happening along transit corridors (Kongcheep, 2018).

In developing green building projects, SET-listed developers may choose to engage with external green building consultants. In Thailand, there are few renowned 'experts' in this area – some are major global consultancy firms while others are key individuals that run smaller but dedicated consultancy firms to assist developers in achieving green building certification. Developers can be seen working with both. An example of a larger engagement would be Sansiri, who appointed Meinhardt Thailand as their LEED consultant for *98 Wireless* (Meinhardt Group, 2017). Univentures worked with Africus Co., Ltd to deliver Park Ventures Ecoplex as the first LEED Platinum mixed-use building in Thailand. Africus Co., Ltd. is a small but renowned firm, and a pioneer in the local green building industry. Others, such as L.P.N. Development has invited green building consultants to develop *LPN Green*, the company's own framework for green design and construction adapted from USGBC's LEED (L.P.N. Development, 2016).

In providing an overview of the listed developers' firm and governance structure, it becomes more evident that the foundations and landscape in which the developers operate support the autonomy of their behaviour and claims for their dominance. SET-listed developers operate more similarly to business giants and entrepreneurs, where real estate and property development is just another 'arm' of their enterprise in the market. Being self-reliant on their financial capacity to develop and

construct, they do not need to answer to investors or financiers as they are able to secure their financial means and bridge any gaps within their own capacity. To this end, smaller property firms are unable to compete with their scale of construction and the dominance they exert over the market. The governance landscape in which they operate, in conjunction with Thailand's loose regulation around land and development enables a tight-knit oligopoly. Moreover, this heightens the impact that large private developers have on steering urban processes and directs the future states of Thailand's built environment.

### **GREEN BUILDINGS IN BANGKOK**

LEED is the most popular green building certification in Thailand, with 144 projects certified as of 2018 (USGBC, 2018). The first green building project in Thailand, *InterfaceFLOR*, received its LEED certification in 2007 (ibid). The project was a manufacturing facility located in Chonburi province (approximately 100km south-east of Bangkok) that belong to the global flooring company Interface, Inc. Thereafter, the trend for green buildings took off steered mostly by private firms in manufacturing, energy, and financial sectors. More recently, multinational companies have propelled their efforts in developing green buildings. Companies such as Starbucks Coffee Company, Kentucky Fried Chicken (KFC), PepsiCo, and Toyota Motor Corporation, all have multiple offices that are LEED-certified in Thailand. Starbucks and KFC alone make up 63 of the 144 LEED-certified projects (44%) in Thailand (USGBC, 2018).

In 2010, Thailand's first green building institute was established by local industry practitioners comprising mainly of architects, consultants, and academics with prior experience in green building certification. The institute is known as the Thai Green Building Institute (TGBI) and launched its own green building certification scheme in 2012 under the name TREES (Thai's Rating of Energy and Environmental Sustainability). The scheme is a close adaptation of LEED with localised design standards to match Thailand's microclimatic factors and building regulations. Within a year of its launch, a single-storey Toyota car dealership showroom with an area of approximately 10,000 sq.m was the first to receive TREES certification. As of 2019, there are 44

TREES-certified projects; 32 were certified in the last three years. Apart from LEED and TREES, there are a few projects in Thailand that are certified under Singapore's Green Mark and Germany's DGNB to date (BCA, 2019; DGNB, 2019).

At approximately the same time TREES was launched, the BMA introduced its first-ever green building policy into Bangkok's city plan, known as *The Bangkok Comprehensive Plan 2013 (B.E.2556)*. The measure was to address Thailand's national energy plan that targeted a 25% reduction of energy intensity by 2030. The policy was a fiscal incentive that offered Floor Area Ratio (F.A.R.) bonuses to projects that were TREES certified. The bonus ranged between 5% to 20% depending on the level of certification achieved, with the highest offered to projects certified at the Platinum level (BMA, 2013).

Beyond this incentive, green building in Thailand has always been voluntary, and only few environmental regulations in place. Among the most stringent are the F.A.R. and Open Space Ratio (O.S.R.) requirements, and the Environmental Impact Assessment (EIA). F.A.R. and O.S.R. requirements were introduced as a part of the City Planning law in 2006<sup>14</sup> and are enforced by Bangkok's Town and City Planning Act. These determine the necessary restrictions for building height, open space, and setbacks required for each development project. EIAs were adopted from the U.S. in 1992 and are only required for industrial and large-scale development projects that are over 10,000 sq.m. The assessment requires developers to report on the mitigation and monitoring procedure of physical and biological resources prior to project construction (Wangwongwatana et al., 2015). Compliance with F.A.R., O.S.R., and EIA are necessary to gain building construction permits. Thailand also has a building code for energy-efficiency, the Building Energy Code (BEC) which was most recently updated in 2009. BEC's effectiveness has been highly contested (e.g. Sreshthaputra, 2008; Chirarattananon et al., 2010). It was first introduced by the Ministry of Energy as part of the national Energy Conservation Promotion Act in 1992. BEC requires commercial

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<sup>14</sup> F.A.R. and O.S.R. requirements were added in the second revision of the City Planning Law in 2006. There were high-rise building laws that controlled a maximum F.A.R. of 10:1 across the country and land-use regulations when the law was first introduced in 1992 (Suwansukhum, 2012).

properties<sup>15</sup> (new and existing) over 2,000 sq.m. to comply with regulations for building envelope, lighting, air-conditioning, and hot water systems (Chirarattananon et al., 2006; Chirarattananon et al., 2010; Buaket and Roonprasang, 2017).

However, the extent to which the BEC is enforced is rather unclear; for instance, Sreshthaputra (2008) compares it to the country's lack of adherence to traffic regulations. The BEC has been loosely enforced and monitored, and most buildings remain non-compliant. The lack of effort is traced back to the dismissal of building owners as well as the capacity of local authorities to take charge. The energy-performance requirement was also deemed ineffective; a point similarly made by Chirarattananon et al. (2010). There is news about a revised version of the BEC (Buaket and Roonprasang, 2017; Praiwan, 2018) to be strictly enforced on new builds greater than 10,000 sq.m. that fall under the nine typologies in the upcoming years.

Nine of the 44 SET-listed developers had green building projects that are LEED-certified at the time this research was undertaken. Among the first to receive certification was Univentures' *Park Ventures Ecoplex*<sup>16</sup>, a 34-storey office building with 27,000 sq.m. of leasable office space and a 240-room five-star hotel on the upper floors. Park Ventures is the first office building to be certified LEED Platinum in Thailand (Univentures, 2014). Since its certification in 2012, Park Ventures Ecoplex has grown to be one of the most renowned green building in Bangkok. The project's rent is also among the highest for office space in the city (Golden Ventures, 2015a).

Following this, in subsequent years two more office buildings received LEED certification; both were developed by Golden Land Property Development – one of Univentures' subsidiary companies. *Sathorn Square* is a 40-storey office building with 72,000 sq.m. of lettable area that was certified Gold in 2013; *FYI Centre*, a 12-storey office building with 48,000 sq.m. of rentable office space was certified Gold in 2016. All three projects (**Figure 19**), Park Ventures Ecoplex, Sathorn Square, and FYI Centre are located in Bangkok's CBD.

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<sup>15</sup> That falls under the following nine commercial property types: hospital, education, office, condominium, convention halls, theatre, hotel, entertainment, and department store.

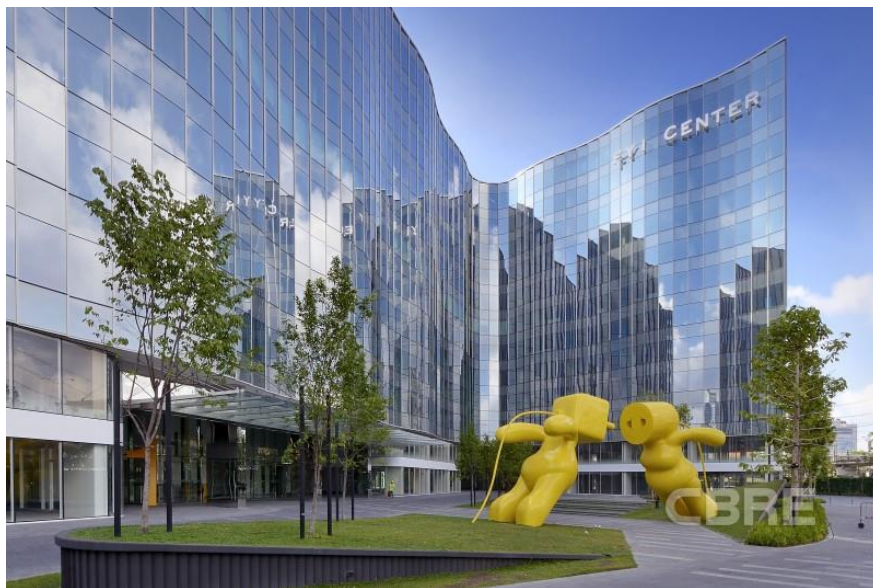
<sup>16</sup> Univenture's Park Ventures Ecoplex is also registered with TREES.



**Park Ventures Ecoplex  
Univentures**  
LEED BD+C: Core and Shell v3  
Certified LEED Platinum in 2012



**Sathorn Square**  
**Golden Land Property Development**  
LEED BD+C: Core and Shell v3  
Certified LEED Gold in 2013



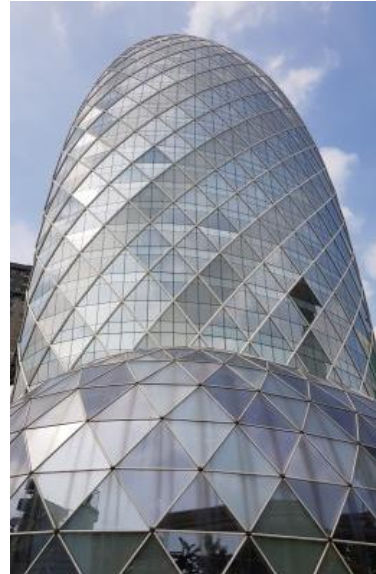
**FYI Centre**  
**Golden Land Property Development**  
LEED BD+C: Core and Shell v3  
Certified LEED Gold in 2016

**Figure 19** LEED certifications of Park Ventures Ecoplex, Sathorn Square, FYI Centre

Source: USGBC (ca. 2015); CBRE Thailand (2018b); Rent Office Bangkok (2019); GBIG (2020)



Singha Complex  
**Singha Estate**  
 LEED BD+C: Core and Shell v3  
 Certified LEED Gold in 2020



Pearl Bangkok  
**Pruksa Real Estate**  
 LEED BD+C: Core and Shell v3  
 Certified LEED Gold in 2018

**Figure 20** Singha Complex, Pearl Bangkok

Source: CBRE Thailand (2018b); GBIG (2020)

Other commercial projects by Bangkok’s SET-listed developers that are in progress of certification at the time of writing include *Singha Complex*, a 42-storey office building by Singha Estate; *Pearl Bangkok*, a 25-storey office building by Pruksa Real Estate; *Unilever House* and *G Tower*, the Asia-pacific headquarters for the consumer goods company ‘Unilever’ and a 320,000 sq.m. 125-storey skyscraper by Grand Canal Land (**Figure 20 and 21**). G Tower is said to become Bangkok’s most important economic hub (Wang, 2014) and the tallest building in the ASEAN region at 600m (Grand Canal Land, 2013a; Grand Canal Land, 2013b).

While most of the above green buildings are offices, there are also a few retail, residential and industrial projects that have been LEED-certified. This includes L.P.N. Development’s 3,500 sq.m. community mall *Mill Place Posri* that was certified LEED Silver in 2016; Sansiri’s 25-storey super-luxury condominium *98 Wireless* certified LEED in 2017 (**Figure 22**); and three other industrial projects by Rojana Industrial Park and its subsidiary TICON Industrial Connection. Rojana’s 14,121 sq.m. industrial manufacturing building was certified LEED Silver in 2015,



TICON's manufacturing building certified LEED in 2015, and TICON's warehouse was certified LEED Silver in 2016.



Unilever House  
**Grand Canal Land**  
LEED ID+C: Commercial Interiors v3  
Certified LEED Gold in 2016



G Tower Grand Rama 9  
**Grand Canal Land**  
LEED BD+C: Core and Shell v3  
Registered in 2014; certification in progress

**Figure 21** Unilever House, G Tower Grand Rama 9  
Source: Grand Canal Land (2013a; 2013b)

The 12 projects make up all of the listed developers' LEED-certified projects<sup>17</sup>. Aside from these projects, there are two other residential buildings by L.P.N. Development that were recently registered for certification with TREES in 2019.



98 Wireless  
**Sansiri**  
LEED BD+C: New Construction v3  
Registered and later Certified LEED in 2017

*Figure 22 98 Wireless*

*Source: Sansiri (2016)*

## Discussion

This chapter sought to present the background and context of Bangkok beginning with a historical outline of Bangkok's urbanisation pattern, trends in property development, and the industry landscape in which private developers operate. The chapter highlighted the dominant role that large private developers play in the urbanisation process. It was reported that activity from the top ten firms alone accounts for 45% of the local property market share (Srimalee, 2013). High-end

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<sup>17</sup> The number of projects is as of 2016, the year the fieldwork was conducted.

condominiums continue to grow in the city with the residential property sector leading with the highest market value.

SET-listed developers represent the majority of the country's leading firms; their listed status guarantees large financial capital, large firm size (by number of employees), and facilitates their operating status. In 2016 when the research fieldwork was undertaken, there were 44 SET-listed developers registered with Bangkok as their base of operations (SET, 2015). Nine of these firms have been regarded as part of Bangkok's 'top ten' (Srimalee, 2013; 2017). The type of projects undertaken by the 44 listed developers enables them to be grouped according to their main industry sector: residential developers (representing 16 of the 44 at 37%); commercial developers (6 of the 44 at 14%); industrial developers (3 of the 44 at 7%); and mixed developers (19 of the 44 at 43%).

The industry landscape and governance structure of private developers in Thailand sheds light on the foundations of developer operations. Regulations surrounding land privatisation and acquisition, together with financing mechanisms behind development activity in Thailand further enables the autonomy of large firms where property development serves merely as another 'arm' of the firms' business ventures. The firm structure of SET-listed developers and the fact that they are founded by some of Thailand's wealthiest individuals further demonstrates the influence to which SEA capitalism resonates to date (see also **Chapter Two**).

The understanding of the specific context and model under which Thai developers operate is essential to demonstrating the crux of this research investigation into top managers' decision-making. Large developers in Thailand operate with high degrees of autonomy steered by its BoDs; compared to other contexts where developers may be restrained by stringent regulations around land ownership and planning permission, the regulations in Thailand are such that land can be easily accessed and traded through capital. This propels the country's urbanisation process as development activity is constant. However, the extent to which these developments are happening sustainably is unclear and can pose significant consequential challenges. For this, a greater

understanding is warranted in exploring developers' position on sustainable development, including green building construction.

The rest of the chapter explored green building practice in Bangkok. There are building codes and regulations that have been issued by the government in the last 20 years to incentivise consideration of environmental impact and energy-efficiency. The most recent being a F.A.R. bonus policy in the 2013 Bangkok city plan that provides developers with up to 20% F.A.R. bonus if their project is green building certified. Up until 2016, nine of the 44 listed developers engaged in the delivery of 12 LEED-certified green building projects (**Appendix 11**).

This chapter highlighted and reiterated the significance of large private developers in Bangkok and the socio-ecological implications that their activity has on the city, its urbanisation process, and future of sustainable development. The country's economic structure and its culture of capitalism facilitates the oligopoly and highlights the significant role that top managers have in steering firm direction and strategy. In the next chapters, these constructs are explored with the support of primary data acquired through empirical investigation. **Chapter Six** is the first of three empirical chapters that presents an overview of the findings from the research fieldwork on the 44 SET-listed developers. **Chapter Seven** probes into the presentation and analysis of the findings in response to the first four AoIs that relate to the firm's organisational constructs; while **Chapter Eight** unveils the latter four AoIs, the individual constructs of top managers interviewed. The main themes that emerge from these findings are then integrated and discussed in **Chapter Nine**. Details of each firm and their responses are discussed in broader terms during these analyses to maintain anonymity as per ethical considerations.

## Chapter Six

### SET-Listed Developers and Green Building Engagement

The previous five chapters outlined the conceptual and theoretical framing that underpins this research. **Chapter Two** presented a review of the literature on organisation theory and behaviour, highlighting the significance of psychological constructs within organisations and how they are able to influence developer behaviour. **Chapter Three** drew on these findings to develop a theoretical framework that identifies organisational culture and individual constraints of managers as the potential AoIs. **Chapters Four** outlined a methodology to apply the proposed framework, while **Chapter Five** presented an overview of Bangkok's industry landscape.

This chapter is the first of three empirical chapters to present the findings from the fieldwork and presents the findings from the scoping study. It addresses 'how' private developers' engage in green building practice (i.e. how developers are engaged, how the design is approached, how decisions are made); focusing on the corporate profiles of the 44 listed developers and how this may impact their engagement with green building projects.

#### LEVELS OF ENGAGEMENT

Of the 44 listed developer organisations that were investigated, nine have green building project(s) that is either registered or certified on a third-party database. However, the findings suggest that developers' engagement in green buildings may not be so 'black and white' – i.e. 'certified or not certified'. Looking across the developers' portfolio, up to two-thirds of the developers (27 out of the 44) demonstrated some sort of commitment to green building design in their development projects. This is where selective implementation of certain green building measures were incorporated into design and construction, but the project as a whole was not followed through to certification or branded as a green building development.

To this end, I propose that Bangkok developers can be grouped according to three levels of engagement in green building practice:

- 1) *Certifiers*: Developers that have engaged or are currently engaged in certified green building projects
- 2) *Advocates*: Developers that have not engaged in certified green building projects, but have incorporated green building measures selectively into their projects; and
- 3) *Non-certifiers*: Developers that have not currently or in the past incorporated any green building measures into their projects

**Certifiers (9 out of 44 developers; 20%)** represent developers that have been involved in green building development under the compliance of a third-party certification scheme. This level of engagement represents nine of the 44 publicly listed developers in Bangkok. Collectively, this group has delivered a total of 12 green building projects as of 2016 (**Appendix 11**). Green building schemes that the projects were registered or certified under include the U.S. Green Building Council's LEED and/or TREES. The majority of the buildings were registered under the LEED rating scheme with only one out of the nine projects registered with TREES and LEED.

During the fieldwork, Certifiers were the most willing to sharing their views and experiences. Phase II of the research fieldwork was able to secure interviews with managers from six out of the nine firms; a response rate much higher than the rest of the group. Certifiers were generally optimistic about the outlook of green buildings, and highly engaged and committed to environmentally friendly practices.

**Advocates (27 out of 44 developers; 61%)** represent developers that have not registered or certified their projects under any green building schemes but have incorporated a number of green building design and construction strategies in their development projects. Advocates represented the majority of Bangkok's listed developers; 27 organisations demonstrated a certain level of commitment to implementing environmentally friendly design and construction. This group of

Advocates seemed to ‘cherry-pick’ the most cost-effective or image-friendly green building measures to incorporate into their design.

The level of commitment towards green building practice represented in this group was rather mixed. The interviews showed that some claimed to be attempting their best to build environmentally responsibly; some only identified with measures that appealed to the public and aided environmental marketing; while others were most comfortable complying with their own in-house standards and were opposed to the idea of third-party certification. The fieldwork gathered 13 interviews with managers from the 44 listed developer organisations.

**Non-certifiers (8 out of 44 developers; 18%)** represent developers that have not undertaken any green building project or incorporated any green building measures into their projects as of 2016. These are eight out of the 44 listed developer organisations. This group of developers were the most reluctant to accept the study’s interview requests; the study was only able to secure interviews with managers from three of the eight organisations. While it may not be appropriate to generalise the following (as this is only a collective response from three managers), this group of developers were comparatively most sceptical about the viability, economic strategy and financial feasibility of green buildings.

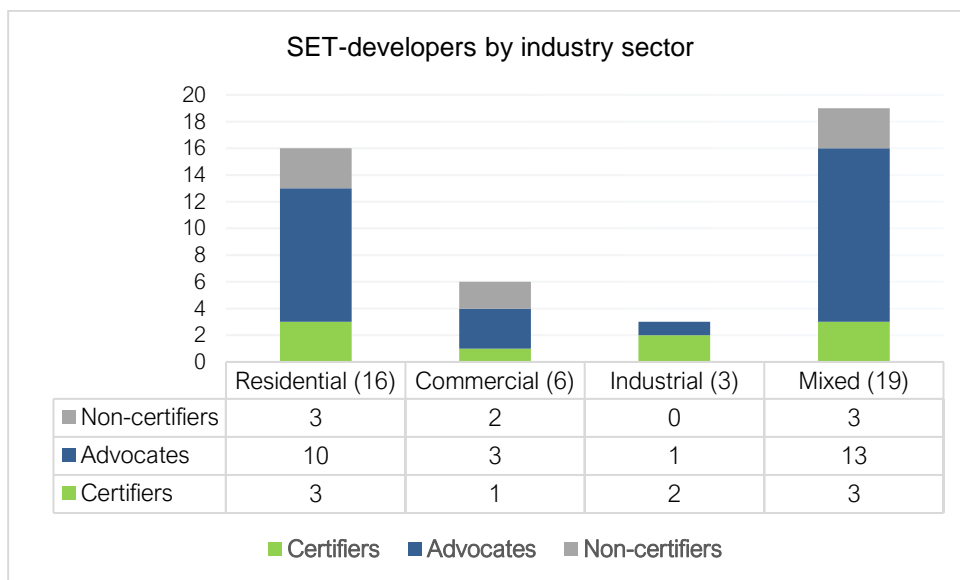
**Table 4** recaps the number of Certifiers, Advocates, and Non-certifiers represented in Bangkok’s listed developers (n =44) and the study’s interview respondents (n =22). The percentage represents the number of developers from their respective typologies.

	<b>SET-listed Developers (n=44)</b>	Percentage of typology from n=44	<b>Developers interviewed (n =22)</b>	Percentage of typology from n=22	Developers interviewed per typology
<b>Certifiers</b>	9	20%	6	27%	67%
<b>Advocates</b>	27	61%	13	59%	48%
<b>Non-certifiers</b>	8	18%	3	14%	38%

*Table 4 No. of Certifiers, Advocates, and Non-certifiers*

*Source: Research fieldwork*

**Figure 23** looks more closely at the three types of developers across their main industry sectors. In **Chapter Five**, it was briefly introduced that listed developers in Bangkok can be seen delivering *residential, commercial, and industrial* developments or a combination of them (*‘mixed’*), with most involved in the delivery of high-rise residential developments and gated communities. Here, we see that the SET-listed developers are mostly residential or mixed developers. Certifiers are almost equally spread across industries, although with lesser presence in the commercial sector.



*Figure 23 Certifiers, Advocates, and Non-certifiers by industry sector*

*Source: Research fieldwork*



## ORGANISATIONAL PROFILE

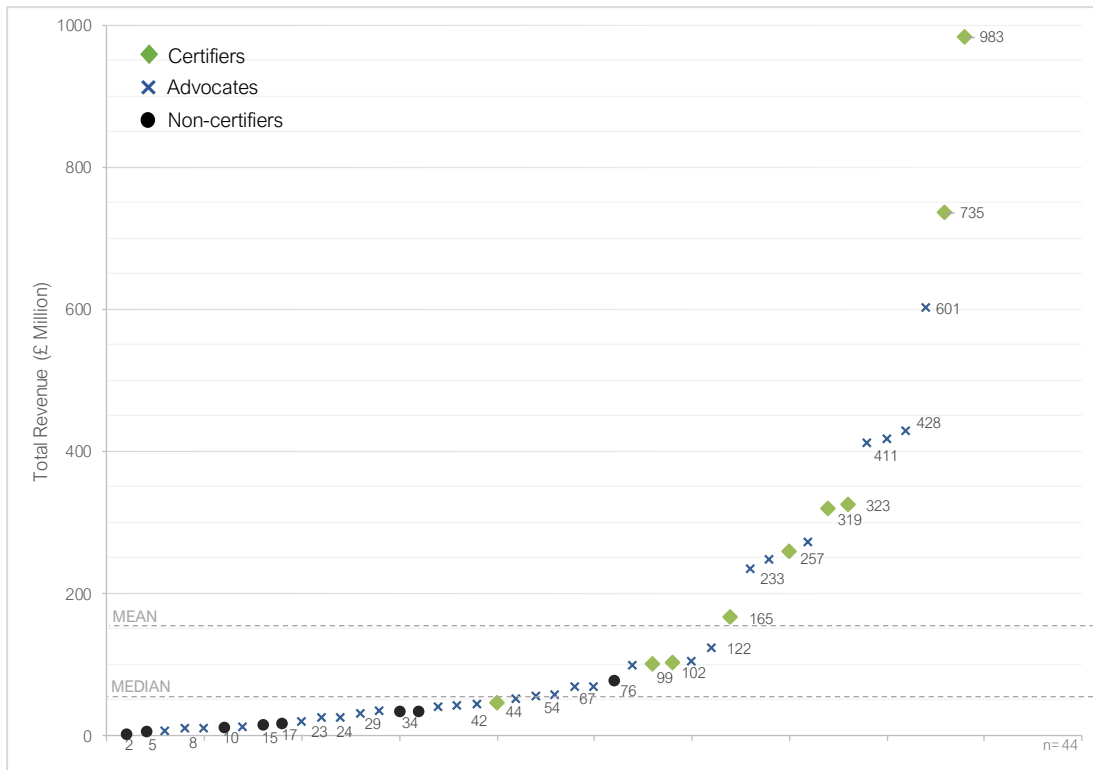
During the scoping study, publicly available data on the developers' corporate and financial profile, as well as their target market, were explored which consisted of information on their revenue, age, size, and the portfolio of past and current development projects (**Appendix 1**). Looking across the data together with the three green building levels of engagement yielded some informative insights into the developers' uptake of green building projects.

This section summarises the findings from the scoping study on the following eight parameters: total revenue, net profit, net profit margin, age, size, number of projects, location of projects, and the type of development (i.e. residential, commercial, or industrial). Overall, the findings suggest that developers with green buildings tend to be those that turn over more revenue, are larger in size, and those that have a larger portfolio of completed projects.

### Financial status

There is a positive relationship between the developers' financial returns and their commitment to green building. **Figure 24** depicts the 44 listed developers arranged in order from smallest to largest according to their total revenue per year ('total revenue' is defined as the total amount of money the organisation receives or turnovers for its goods and services per annum). The chart shows that majority of Certifiers (green data points) are positioned towards the right-hand side of the chart, above the mean and median lines. Certifiers generally had higher total revenue and net profit per annum.

The data shows that the average SET-listed developer generates revenue of approximately GBP 152 million per year (with a median of GBP 55 million). The revenue generated by Certifiers was higher than the average by twofold. Moreover, two of the highest-earning firms that are positioned ahead of the rest of the group are both Certifiers. On the other end, the non-certifiers are positioned on the left-hand side of the chart, with revenue bands below GBP 20 million per year.



Total revenue	n=44	Certifiers	Advocates	Non-certifiers
Mean	152.9	336.3	130.9	24.1
Median	55.0	257.0	54.0	16.0

Units in GBP (Million)

**Figure 24** Bangkok SET-developers – Total revenue

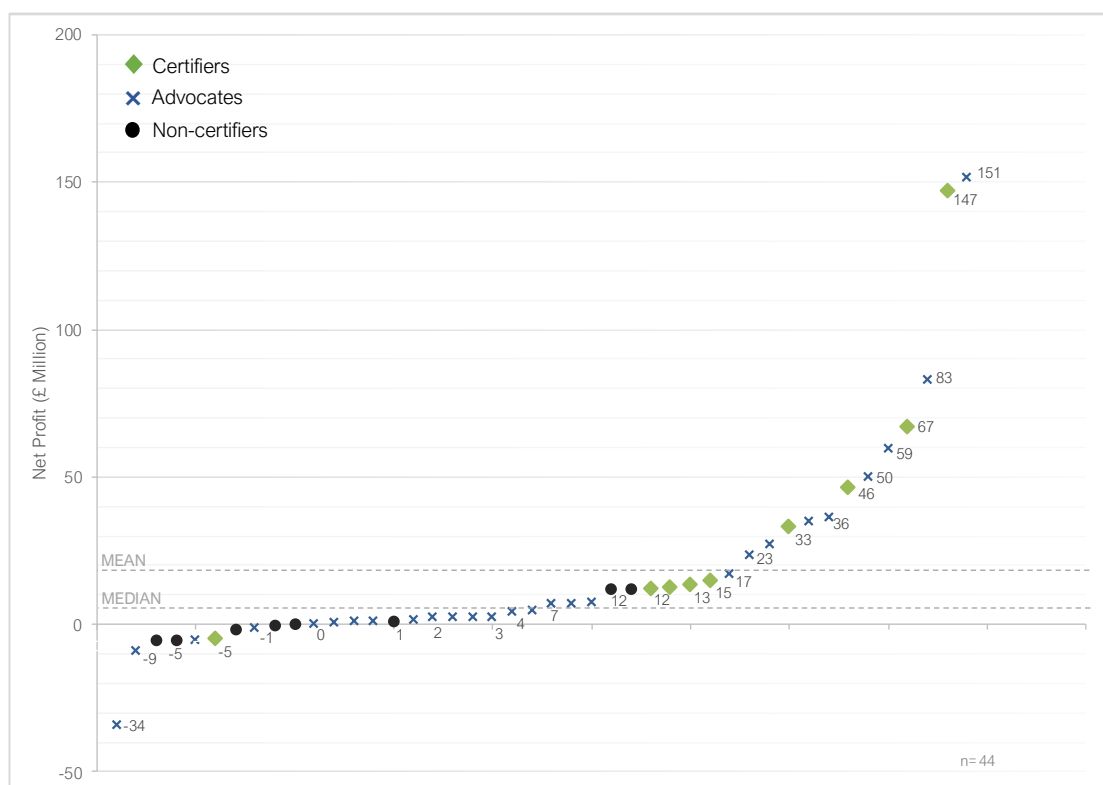
Source: Research fieldwork

Profitability of an organisation is another variable that seemingly correlates with developers' level of engagement with green buildings. Two variables depicting profitability were examined, the organisation's 'net profit' (defined as the profit of a firm after deducting operating expenses, interests, and taxes from the total income revenue) and the 'net profit margin' (defined as the percentage of revenue remaining after deducting operating expenses, interests, and taxes from the total revenue). Findings show that Certifiers were making a higher net profit, although not necessarily with a higher net profit margin.

**Figure 25** arranges the 44 developers according to their net profit per year. Organisations that make the least amount of profit are positioned towards the bottom half of the chart and the largest towards the top. Certifiers are positioned generally above the median and close to or above the

average. The average net profit made by the Certifiers is at approximately GBP 38 million. Advocates make approximately GBP 18 million, and Non-certifiers generate a net profit of GBP 1.5 million per annum. Certifiers as a group earn double the average net profit of listed developers.

It is also interesting to note that there appears to be a threshold at the GBP 12 million mark. The net profit of all but one LEED-certified organisation earns more than GBP 12 million per annum, as clearly depicted in **Figure 25**. It is speculated that organisations may become more accepting of green building practices after generating a certain amount of profit.



Net profit	n=44	Certifiers	Advocates	Non-certifiers
Mean	18.8	37.9	17.6	1.5
Median	5.8	14.7	4.1	-0.1

Units in GBP (Million)

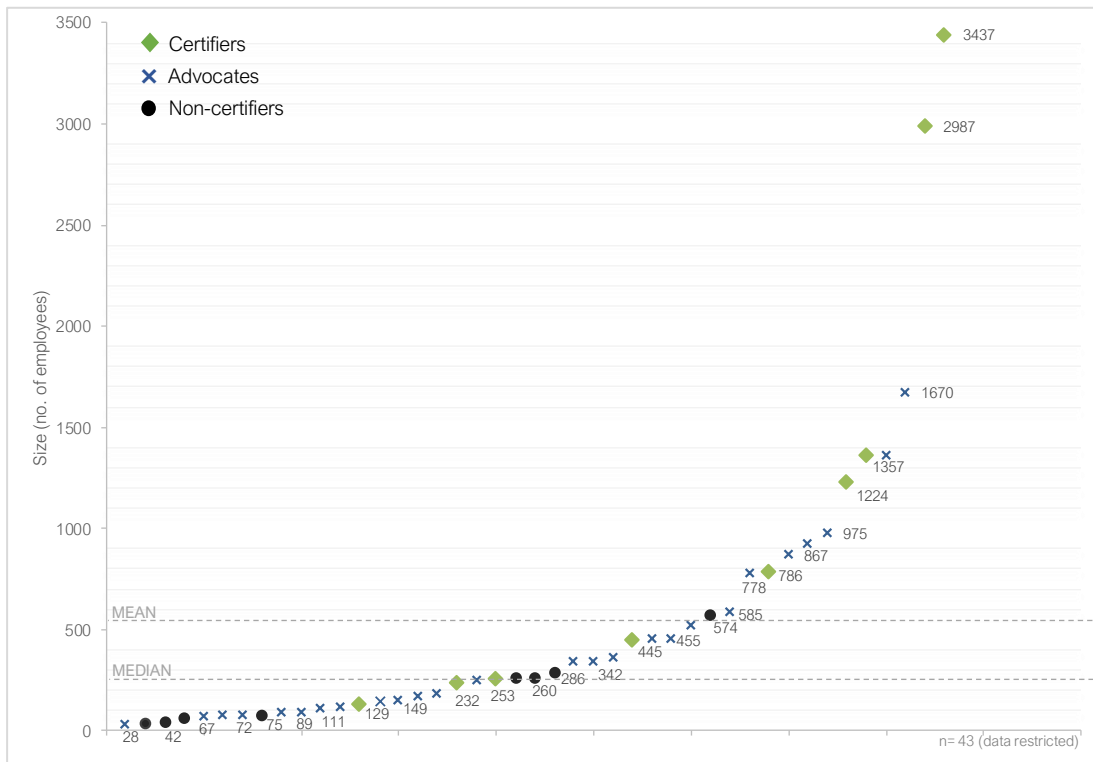
**Figure 25** Bangkok SET-developers – Net profit

Source: Research fieldwork

## Size

Size is reflected by the number of employees within an organisation and is also shown to correlate with developers' level of engagement in green building projects. **Figure 26** shows the developers arranged by their organisational size<sup>18</sup>. Smaller firms are aligned to the left-end, and largest ones to the right-end of the chart. The horizontal axis represents the number of employees.

The findings show that majority of the Certifiers are larger in size. Six out of the nine Certifiers are shown to be above the median average on the chart (260 employees). Certifiers are developers with an average of 1,200 employees, three times larger than the rest of the group (**Figure 26**).



Size	n=43	Certifiers	Advocates	Non-certifiers
Mean	549	1206	429	199
Median	260	786	293	167

Units in no. of personnel

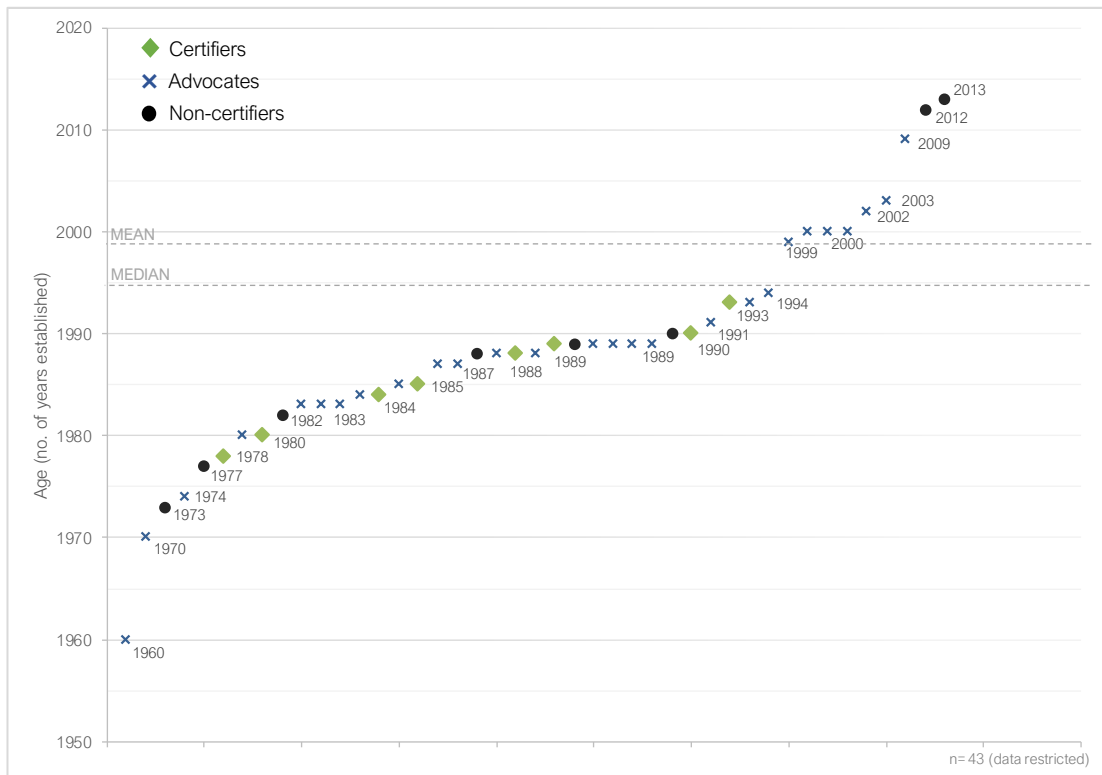
**Figure 26** Bangkok SET-developers – Organisational size

Source: Research fieldwork

<sup>18</sup> Data was unobtainable for one of the listed firm during fieldwork (n =43).

## Age

Two sets of data on organisational age were used in the analysis – the number of years since the firm was first established (‘established age’), and the number of years since the firm was first listed on the stock market (‘listed age’). The findings did not show any significant connection between the developers’ age and engagement in green building. The findings showed that for both variables, Certifiers, Advocates, and Non-certifiers were distributed equally across the scale. Organisational age does not seem to be a determining factor in green building. Certifiers are comprised of a mix of young and older organisations, with the average listed developers at approximately 30 years old since the time of its establishment<sup>19</sup> (Figure 27).



		n=43	Certifiers	Advocates	Non-certifiers
<b>Established Age</b>	Mean	27	30	27	26
	Median	28	30	27	28
<b>Listed Age</b>	Mean	17	19	17	16
	Median	22	21	22	22

Units in years

**Figure 27** Bangkok SET-developers – Organisational age (as of 2016)  
Source: Research fieldwork

<sup>19</sup> Data was unobtainable for one of the listed firm during fieldwork (n =43).

### Number and location of projects

Findings show that Certifiers tend to have been involved in a greater number of projects; some of which are international projects in overseas locations (**Figure 28**). On average, each Certifier has delivered approximately 60 projects in the past while the number of projects completed by the 44 developers is averaged at 30. The number of development projects Certifiers have undertaken is double that of the average listed developer.

However, this range varies. Some Certifiers have delivered over 200 development projects over their years of operation while others have completed as few as four. This goes to show that developers with green buildings tend to be those operating on a larger scale but does not imply that those with less project experience are less likely to engage in the practice.

Most of the listed developers operate locally at the city and provincial scales. Only Certifiers and Advocates have targeted international markets in locations such as Singapore, Hong Kong, Vietnam, Cambodia, India, Maldives as well as the United Kingdom.

No. of projects	n=44	Certifiers	Advocates	Non-certifiers
Range	3 to 204	4 to 204	3 to 112	6 to 49
Average	32	58	26	22

Units in no. of projects

Project location(s)	n=44	Certifiers	Advocates	Non-certifiers
Bangkok only	14	3	9	2
Provincial only	2	2	-	-
Bangkok and provincial	26	3	17	6
Bangkok and SEA Region	1	-	-	-
International	1	1	-	-

Units in no. of developers

**Figure 28** Bangkok SET-developers – Number and locations of projects

Source: Research fieldwork

## APPROACH TO DESIGN AND CERTIFICATION

The scoping study provided an overview of the developers' approach to green building projects. **Table 5** presents a brief overview of these findings, outlining the green building measures that the Certifiers and Advocates have selectively chosen to apply. The top three measures that are frequently incorporated in projects are the design for green space, the use of energy-efficient and environmentally friendly materials, and the provision of construction pollution prevention plans (see also **Appendix 12**).

**Figure 29** illustrates the findings conceptually, the size of the ring indicating the number of developers that have referred to a particular measure. Most of the measures are found to be concentrated in the design phases, while fewer measures have been employed in the planning, construction and operation phases of the project (e.g. facility management, occupant behaviour, environmental monitoring).

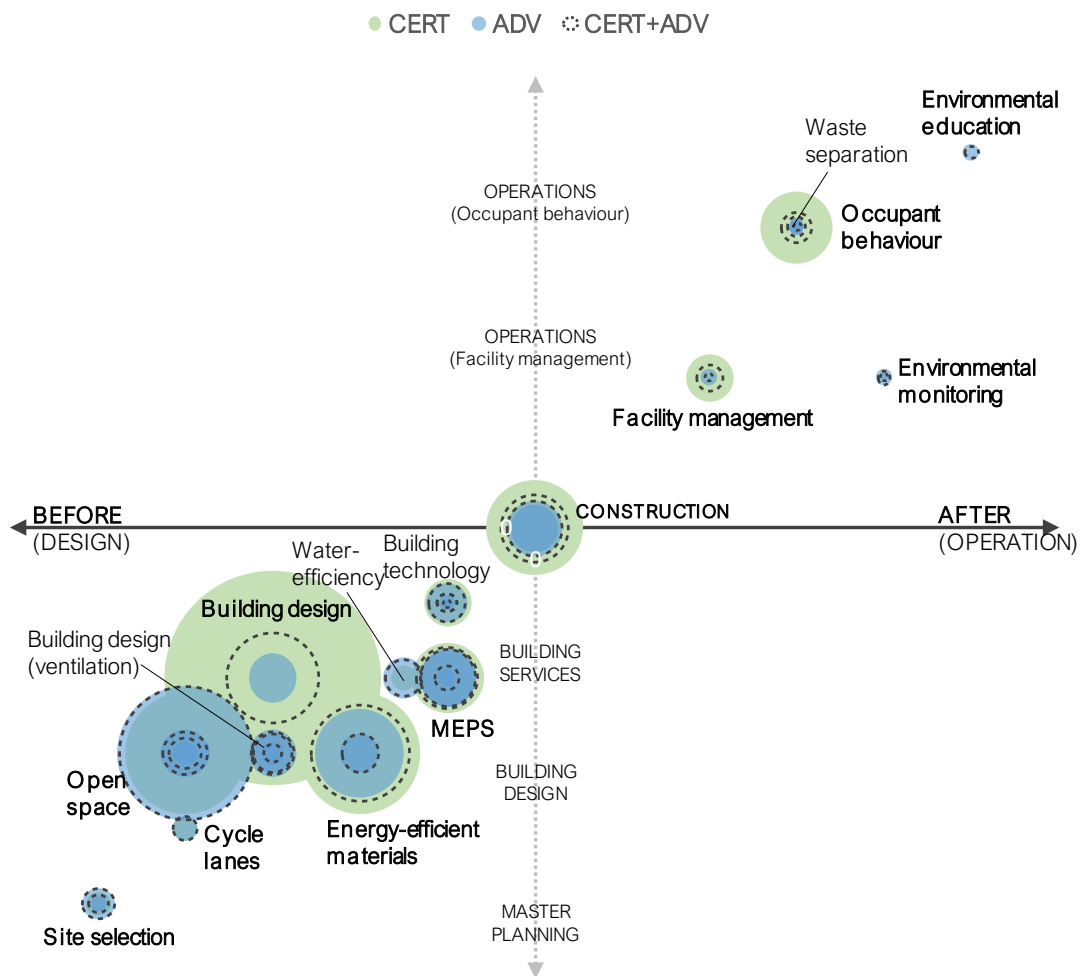
There is a substantial amount of literature that highlights the importance of occupant behaviour and building monitoring in reducing building energy-use (see e.g. Masoso and Grobler, 2010; Meyers et al., 2010; Haldi and Robinson, 2011; Janda, 2011; Hong et al., 2016). These aspects of sustainable building are less addressed by the developers included in this research. While it is not the place nor intention of this research to further explore the implications of these findings, it is an interesting observation on the way developers approach green buildings. Whether these reflect the nature of certification requirements, developers' view on the scope of green buildings, or how these understandings may impact energy use and savings in the long run, can be areas for further discussion.

Phase	Category	Green Building Measure
MASTERPLANNING	Site selection	Strategic Location Preservation of ecological area
	Open space	Shuttle service Cycle lanes Bicycle parking Open space, green space Vertical gardens, rooftop gardens
BUILDING DESIGN & SERVICES	Building design	Energy-efficient design Passive design, building orientation Natural ventilation Stack ventilation Day-lighting measures
	Material and specification	Windows - green tinted, low-E, insulated glass Energy-efficient, environmentally friendly building materials Energy-efficient/LED light bulbs
	Mechanical, electrical, and plumbing systems (MEPS)	Energy-efficient systems (HVAC, mechanical, electrical appliances, air-conditioning controls) Lighting control systems, day-lighting sensors Indoor Air Quality (IAQ) monitoring systems, CO <sub>2</sub> detectors, pollution control Building technology
	Renewable energy systems	Solar panels Wind turbines
	Water efficiency and management	Management of water use, wastewater treatment systems Water quality measurement
CONSTRUCTION	Construction pollution prevention and control	Environmental Impact Assessment (EIA) *as per building regulations
		Construction pollution prevention and mitigation plans
OPERATIONS	Facility management	Facility management, maintenance measures Condominium regulations
	Occupant behaviour	Promotion of environmentally friendly occupancy behaviour Waster separation and storage, recycling programmes
	Environmental monitoring	Environmental impact assessment Monitoring, evaluating environmental management systems and outcome
	Environmental education	Additional education and environment-related areas

*Table 5 Green building measures implemented by SET-developers in this research (Certifiers & Advocates)*

*Source: Research fieldwork*





*Figure 29 Green building measures implemented by SET-developers in this research (Certifiers & Advocates)*

*Source: Research fieldwork*

### THE ROLE OF TOP MANAGERS

The last section of this chapter brings to light an observation that greatly substantiates the validity of the proposed theoretical framework in **Chapter Three**. Through the interviews, it became evident that top managers in Bangkok’s listed developer organisations are significant in driving the firm’s engagement with green building practice. This conveys an important understanding of

the behaviour of large-scale private developers in Bangkok: that green building measures undertaken by the SET-listed developers are achieved through a top-down approach.

In **Chapter Two**, the literature presented on leadership highlighted the role of top managers and their influences on the behaviour of organisations. Influences that top managers have on the organisation was described as being two-pronged. On one hand, managers influence the firm through their authority in decision-making processes, enabling them to dictate strategies and approaches in practice (Mintzberg, 1973); on the other, they influence the culture of the firm through the creation and retention of shared values and norms (see e.g. Hambrick & Mason, 1984; Robbins and Judge, 2014; Yukl, 2013). Both these qualities were reflected in the findings from the research fieldwork.

The developers interviewed during the fieldwork agreed unanimously that green building practice is brought forward via top-down policies initiated by top managers. The process can be understood as top managers ‘handing out a design brief’, outlining the desired deliverables to their project team, which may include a requirement to adhere to green building practices.

First there is determination, then there is concept [concept requirement]. This [concept] may say, “for this building we are going to be an energy-efficient building”. How are we going to make the building energy-efficient, that’s another question, but the proposition has to come first. The brief gets sent to the designer, then the designer designs for energy-efficiency instead of thinking about usable space. [...] If the “number one” hands over a brief to the designer that asks them to maximise retail space, the designer will approach the project differently. (NON2-C)

Top management is highly involved – is *really* involved [in the process] – because they have to be the ones to lay out the policy... which direction each project is taking... the concepts... these have to be run through by them. (NON3-M)

The majority of interviewees stressed that the development of a green building is an active decision made by the manager to incorporate environmental design into the project concept; it is not inherently assumed to be a requirement for new developments. Even if the situation were reversed

and the desire to go green is initiated from the bottom up (i.e. from another team member), the project would still require approval from top managers to progress.

These findings highlight the significance of top managers and how their individual perception and values may permeate and shape the collective behaviour of the organisation – similarly to how Hambrick and Mason (1984) posited that the organisation can be seen as a reflection of its top managers. Thus, for managers to incorporate environmental practices into projects, they need to be environmentally oriented to an extent. Respondents believed that managers' own values reflected their concept requirements and ultimately the outcome of development projects. In the case of green buildings, it is seen as being a part of the larger environmental commitment and 'conscience' of their top managers. Developers believed that a project delivered by top managers that prioritised commercial objectives would be substantially different from one that is driven by an environmentally conscious manager, and described that first and foremost, 'those that are in the number one position has to first have the *heart* to think that way' (NON2-C).

The way I see it... this is really about environmental conscience. If this doesn't exist then it will be difficult for things to progress. Those with an environmental conscience about conserving energy - if top managers engrain these values into the organisation, certainly the team will utilise these values - this "concept" - to improve future work. This is essential. If within our own firm we do not share these values, do you think we would be using them in projects with our customers? [...] I think this [environmental conscience] is the foundation of it. If we use commercial ideas to lead, then it will turn out differently... If we use conscience to lead, the outcome will be different. If the firm's management has these perspectives, then this will help. (ADV3-R)

These findings resonate with what the literature says on the influence of leaders and their roles in shaping the behaviour of organisations. Top managers create normative behaviour and accepted standards of practice in organisations (Robbins and Judge, 2014); some forms of leadership are said to even inspire the behaviour and values of individuals that transcend beyond the boundaries of the organisation (e.g. Yukl, 2013 on charismatic and transformational leadership).

This validates an extent of the proposed framework that positions top managers at the centre of developer behaviour. Although the role of top managers is shown to be essential to Bangkok developers, it is important to note that this is a reflection of the organisational culture in Thailand. Organisational culture in Thailand has shown to be strictly authority-driven with high power distance between top management and employees (Chompookum and Derr, 2004). This is reflected in the developers' organisational structure where all 44 organisations operate according to a centralised structure with the BoDs at the top of the hierarchy. Thus, top managers may be central to the understanding of developer behaviour in Bangkok and a core part of this research, but this claim may not be valid across all contexts.

## **Discussion**

This chapter presented an overview of the findings from the scoping study and outlined the profile of the 44 developers included in this research, and their current approaches to green building practice. From the findings, it can be deduced that developers' engagement with green buildings can be seen happening on three different levels, and that developers can be grouped according to these typologies:

- 1) *Certifiers*: developers with certified green building projects;
- 2) *Advocates*: developers with no certified projects but have selectively incorporated certain green building measures into their projects; and
- 3) *Non-Certifiers*: developers without certified green buildings and have not shown to incorporate any green measures into their development projects.

The three groups of developers were further analysed in relation to their corporate profile where findings suggest that the larger developers (in revenue and size) were more likely to be engaged with green building practices. Organisational age – or the number of years the developer has operated – was not shown to be a significant determinant.

The latter half of the chapter outlined findings on the listed developers' current approaches to green building practice. The majority of the green buildings developed by nine of the listed developers

sought compliance with USGBC's LEED. Analyses of developers' company documents and project portfolios also showed that most of the work done on green buildings by Certifiers and Advocates were heavily oriented towards the design phases with substantially less consideration given to occupancy and building operation phases. While this may merely be a preliminary observation, it raises some concerns on current approaches to green building design and practice and the extent to which it effectively addresses energy issues in the long run.

The last section discussed the significant role that top managers have in driving Bangkok's developer organisations to pursue sustainable practice. During the interviews, the respondents affirmed that green building projects were driven by the firm's top managers, through their outlook on environmentally responsible design. The developers operate via a strictly hierarchical structure that made the role of managers, through their authority and the power distance, highly influential. These findings validated the proposed theoretical framework in **Chapter Three** in its application to Bangkok developers and highlighted the significance that individual constructs of top managers have on developer behaviour (**Chapter Eight**).

In summary, this chapter sought to serve as an introduction to the empirical findings and outlined the current approaches and pragmatic implications of developers' engagement with green buildings. It provided a general insight into the profile of Bangkok's SET-listed developers and how they currently approach green building practice. This chapter addressed the 'how' to private developers' engagement in green building practice (i.e. how developers are engaged, how the design is approached, how decisions are made), **Chapters Seven to Nine** will subsequently focus on presenting the 'why' by drawing on the empirical findings on the eight psychological AoIs.



# **Chapter Seven**

## **Findings on Organisational Constructs**

**Chapter Seven** is the first of the two empirical chapters that present the findings and analysis on the eight psychological AoIs. In **Chapter Three**, I proposed a theoretical framework that sought to understand the behaviour of developers as organisations; this was narrowed down into eight AoIs:

1. Corporate Mission and Philosophy (CMP)
2. Corporate Environmental Responsibility (CER)
3. Internal Environmental Awareness (IEA)
4. Corporate Risk Orientation (CRO)
5. Managerial Objective (MO)
6. Managerial Environmental Commitment (MEC)
7. Managerial Environmental Outlook (MEO)
8. Perception of Green Building Practice (PGBP)

This chapter presents the findings on the first four AoIs (CMP, CER, IEA, and CRO) where their influences towards Bangkok's developers' responses to green building practice will be discussed. The findings draw on data collected from both the documentary and interview phases of the fieldwork.

### **1. Corporate Mission and Philosophy (CMP)**

CMP was derived as an AoI that addresses corporate objectives and philosophy of the organisation. This includes the goals, visions, and core values that drive and shape organisational practice (Brown, 1995; Pettinger, 1996). Literature on organisational culture denotes how these different values and attributes represented in an organisation's CMP – e.g. philosophy, business aims, codes

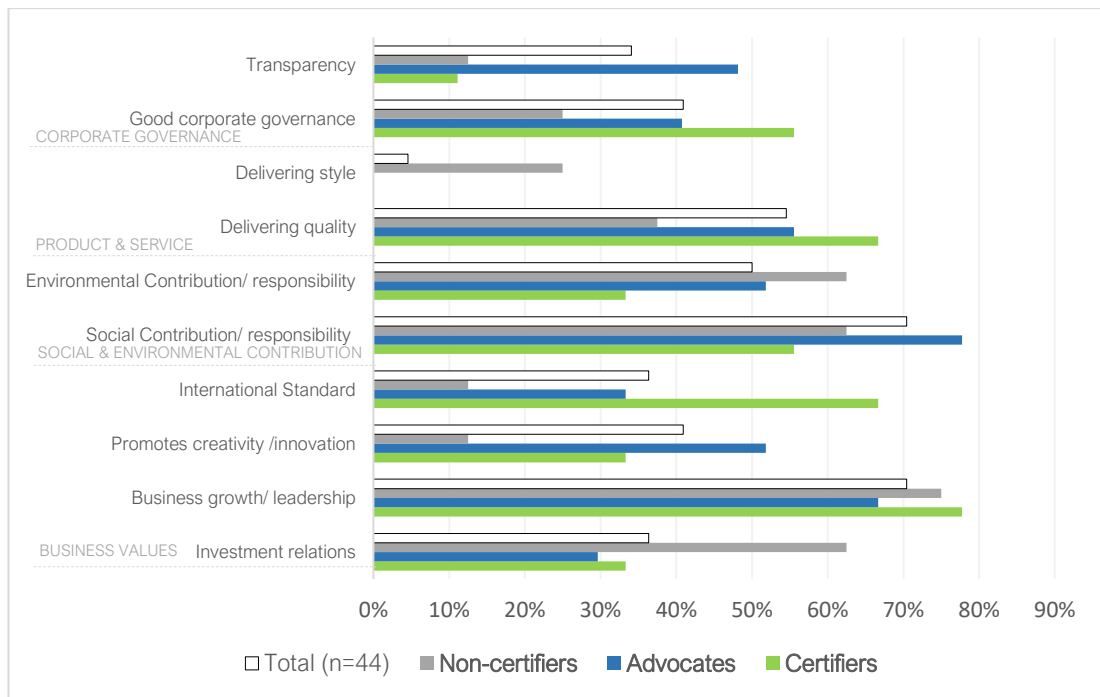
of conduct and ethical principles – can be seen to inform the behaviour and decisions made by the organisation (Brown, 1995; Pettinger, 1996).

During the fieldwork, a substantial amount of documentation was gathered from the listed developers' annual reports, published statements, and corporate website that conveyed their CMP. All 44 listed developers had published statements about their company's 'mission' and 'vision' on their company webpage or annual reports. These statements captured the developers' main objectives, what they envisioned for their practice, as well as any philosophical and/or ethics that they sought to adhere to in their operations. Reflecting on how these statements may have influenced developers' adoption of green building practice yielded a rather mixed set of findings.

- ***Business is a priority***

It is evident that for the listed developers, business objectives alongside investor and shareholder relationships are key priorities (**Figure 30**). Developers' CMP statements conveyed commitment to the commercial side of the property business; there was an abundance of CMP statements that endorsed economic growth, business leadership, and profitability. The listed developers often expressed their vision of becoming the country's 'leading developer'. These statements are often supported by commitments to delivering high quality and innovative projects. Land and Houses, for instance, has a vision to become the 'leading property developer in Thailand' whose goal is to '[build] a better living for house buyers' (Land and Houses, 2017a). Quality Houses similarly shared the vision of becoming 'the leading real estate development company that provides quality and innovative products and services' (Quality Houses, 2015a).





**Figure 30** Bangkok SET-developers – Coding of CMP statements

*Source: Research fieldwork*

A closer analysis of the findings show that up to 70% of the 44 listed developers expressed their aspirations to establish market leadership, and more than half of the developers identified delivering ‘quality’ projects as part of their CMP. Apart from these two dominant views, over one-third of the developers discussed investment-related goals, creativity and innovation, and good corporate governance as part of their main corporate objectives. Developing projects in accordance with international standards and garnering overseas recognition were also mentioned by over a third of the developers (**Appendix 13**). This part of findings resonated extensively with how property development as a commercial practice has been conceived since the birth of the neoliberal era, where business profitability and economic growth are seen as fundamental to property development as an activity (see **Chapter one**).

Under these circumstances, it was not surprising to find business leadership at the crux of the developers’ CMP. Moreover, the nature to which the developers’ business is set up as a public company relies heavily on their appeal to investors and shareholders. Generation of financial returns is thus another area that has been frequently emphasised in developers’ CMP statements:

The company is determined to become the nation's leading business in the housing business with policy focused on stable, continual growth and business expansion by taking factors into consideration with prudence and caution and seeking new business opportunities (ADV-R).

Mission:

1. [The Company] is an exclusive gated development to meet even the most discerning home seeker's needs and desires.
2. We offer reasonable and competitive price with superb location and profitable for shareholders.
3. Moving on to develop environment while stylish living is complemented by our professional management that ensures the ultimate peace of mind. (NON-R)

- *Social and environmental objectives*

While the findings on economic commitments were expected, the number of CMP statements that relayed the developers' commitment to sustainable practice was unanticipated. This brings forth the second major observation: more than half of the listed developers currently incorporate social and environmental objectives as part of their corporate commitment. More than 70% of the 44 developers expressed their commitment towards socially responsible practices, while half expressed commitment towards environmentally responsible practices. In these statements, developers explained how they commit to operating with consideration towards the wider society and the natural environment. The rhetoric used was generally the same across the whole group, with 'responsibility' employed as the keyword.

The Company is always aware of its responsibilities towards communities and the environment. These values are embedded in its core business process, from product design, proper choice of materials and resources used, quality control, services, delivery time and product development for better quality of life (ADV-R).

...the Company realizes that even if profit seeking is a business goal, the Company makes profits truly based on fair, noninterference and responsibility to society (ADV-M).

The Company intends to grow and continue its sustainable development to become a prominent leader in the property development sector under the concept of: Sustainable growth, preservation of service standards and quality, uninterrupted development,

confidence in the values of human resources and teamwork, transparency and accountability, and social and environmental responsibilities (ADV-M).

Based on these statements, it stands to reason that there is a consensus for environmental and sustainable practice that resonates with the oligopoly. The statements suggest that developers are aware of the ongoing social and environmental issues, and of the impact that property development may have in exacerbating these issues. The statements also imply that developers are competent to work with social and environmental responsibilities in mind. Social and environmental responsibility statements were conveyed across three groups: Certifiers, Advocates, and Non-certifiers. This level of environmental literacy was unanticipated as accounts from the literature alongside the researcher's own experience and Bangkok's recent struggle with PM2.5 air pollution painted a different image of the industry (see **Chapter Five**). The main concern that arises, from what seems to be a positive set of findings, is that written commitments may be merely pro forma. Having 'sustainability' and frameworks for social and environmentally responsible practice that denote 'best practice' merely in their CMP can improve the firm's image by portraying good corporate citizenship.

- *International recognition*

One key finding indicative of the synergy behind developers' business objectives and environmental practice is their vision to expand into the overseas market. International business objectives were substantially present in the Certifiers, where two-thirds addressed international market penetration as a corporate objective (**Appendix 13**). This is more than double the ratio of Advocates and Non-certifiers who have expressed international recognition as a main goal, respectively. Compliance with green building standards is seen as a strategy to garner international recognition, as achieving LEED certification would, 'tell both current and potential customers that [the company] has the quality to meet high international standards' (CERT4-I). With over 80,000 LEED participating projects across 162 countries (Tufts, 2016), utilisation of green building certification as tool for business expansion is expected.

- *Corporate culture and history*

In certain cases, it was the firm's history and corporate experience that differentiated Certifiers from the rest of the group. This observation was not present in documentary data and was only made evident from the interviews. That is, for a number of developers it was their company history and experience that inspired them to pursue green building practice. To convey this more explicitly, the narratives of two of the listed firms are drawn upon: Univentures and Singha Real Estate's histories in the energy sector and alcohol industry, respectively.

Univentures started out in 1980 as a manufacturer and distributor for powdered zinc oxide – a material used in the manufacturing of automotive tires, animal feeds, ceramics, cosmetics, and medicines. Only in 2006 did the company shift its listing to the property development sector. During its time as a zinc manufacturer, the company had set up two more subsidiaries in the energy sector. One of these is ESCO Ventures Co. Ltd., an energy service company that works with Thailand's Ministry of Energy to raise capital for investment in energy-saving projects. The company provides long-term lease of funds with low interest to assist entrepreneurs in the purchase of energy-efficient equipment or renewable energy to date.

Univentures was highly experienced in energy-efficiency prior to the development of their first green building. They oversaw ESCO Ventures in energy saving projects and energy conservation. They had worked with other firms to provide energy audits to verify and improve guaranteed energy savings, and had even set up two more subsidiaries in the energy and manufacturing sector that are operating to date. What their experience from ESCO Ventures and the energy industry brought forward is the advanced technical knowledge and understanding of energy conservation practices that translated into the tangible benefits of energy-efficient practices.

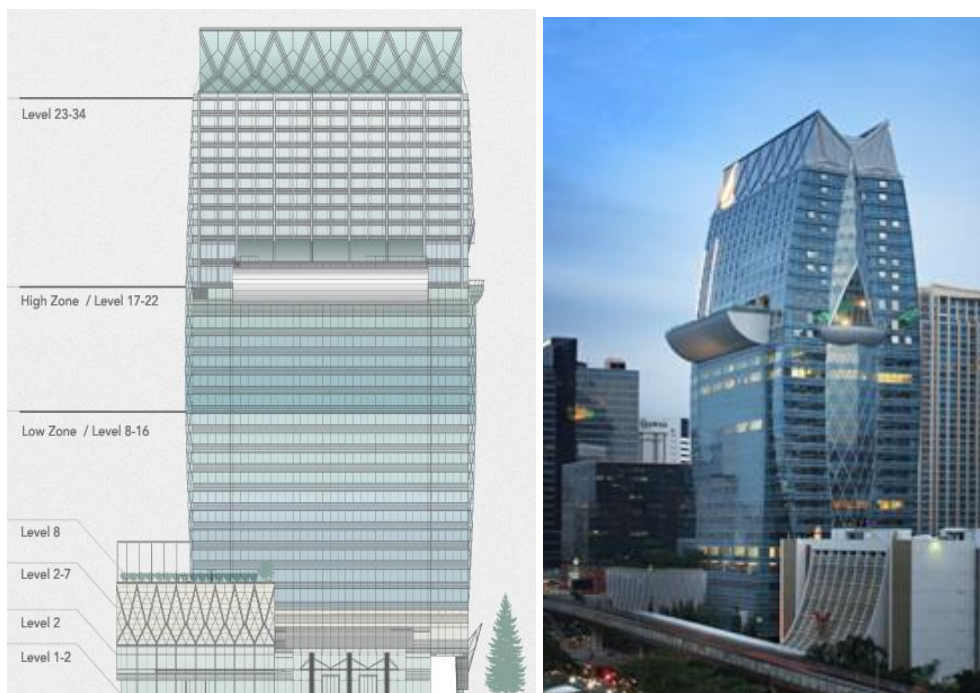
Univentures is the first developer to achieve LEED Platinum in Thailand. The award goes to its renowned office building *Park Ventures Ecoplex* in Thailand (**Figure 31**), introduced earlier in **Chapter Five**. When Univentures first acquired the location, it was clear to them from the very

start that they wanted to construct a green building. Requirements were given earlier on, before the start of the project:

...as soon as we obtained this plot we intended to do something different. Witthayu Road is a green road; we wanted to build a green building. [...] It was our aim from the beginning to strive to be awarded a prize for being “green” (Univentures, 2013).

The company went on to study the various standards for green building, ultimately selecting to comply and certify with U.S. Green Building Council’s LEED.

We studied various institutes worldwide who specialize in being “green” and felt that the LEED [...] should be our aim. We studied the criteria set by that institute and decided to invite them to be our consultants from the design stage (ibid).



**Figure 31** Park Ventures Ecoplex by Univentures

*Source: Golden Ventures (2015b)*

Univentures is known in the industry as one of the key developers working with green building, where their work today continues to focus on environmental sustainability and sustainable development. Their subsidiaries include a second listed firm, Golden Land Property Development which similarly holds a strong corporate focus on green building development. Univentures

together with Golden Land alone are responsible for five of the nine LEED-certified buildings that belong to the listed developers (see **Appendix 11**).

Singha Estate, a ‘lifestyle developer’, on the other hand, had a different start. Singha Estate is the property arm of the large *Boon Rawd Brewery* group which was established since 1933. Thailand’s first brewery, Boon Rawd Brewery owns over 50 affiliated companies to date and has expanded its business from beer and beverage production to agriculture, real estate, food and restaurants, as well as fashion and other lifestyle products and experiences. The brewery’s most renowned Thai beer – ‘Singha’ – depicts the Royal Garuda on the label of its beer bottles. The Garuda is a stamp of the ‘Thai Royal Warrant’ awarded to the company since 1939 for its exceptional contribution to the national economy and social development. To date, Singha is the only brewery permitted by the government to display the Royal Garuda on its product (Boon Rawd Brewery, 2018).

Boon Rawd Brewery refers to notions of integrity and ‘pride’ behind its operations. Despite being one of the major alcohol manufacturers in Thailand<sup>20</sup>, the company has made sure to live up to its reputation as a good corporate citizen. It actively participates in philanthropic activities and campaigns and has stated how it is ‘proud of its reputation as a good corporate neighbour’,

As an integral part of the Thai society, Boon Rawd Brewery is proud of its reputation as a good corporate neighbour. The company actively participates in local environmental support programs, offers scholarship to those attending Thailand’s 25 colleges and universities, as well as provides educational opportunities for the children of the company’s employees. Furthermore, the company also provides medical assistance and disaster relief under the Phraya Bhirombhakdi Foundation (Boon Rawd Brewery, 2018)

The same ‘*pride*’ has been carried forward and used as an acronym for the corporate philosophy behind the firm’s development practice which stands for Partnership, Refined, Integrity, Dynamic and Entrepreneurship:

“PRIDE” galvanizes and dictates Singha Estate people’s common directions, no matter where they take responsibility. PRIDE values underline their behavior toward one another,

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<sup>20</sup> Thailand is a Buddhist country. Buddhism teaches to avoid all intoxicants, thus alcoholic beverages are viewed as unethical products and are not often gifted.

a norm for every action taken and decision made, which impacts the Company's stakeholders. (Singha Estate, 2017)

And as reiterated through their statement in 2017, their employee's full dedication to sustainable development stems from this pride.

...our employee's full dedication to creating sustainable development for the Company will bring pride and sustainable values to all stakeholders (ibid).

It is expressed in the follow-up interview that 'PRIDE' is what led the company to pursue a culture of creating 'the best' for their customers and their surrounding environment – to which green building (based on its environmental merits) was seen as another means of delivering this vision.

## **2. Corporate Environmental Responsibility (CER)**

CER as an AoI sought to investigate the developers' view of corporate responsibility, particularly on environmental responsibility and how that relates to their uptake of environmental practice. The AoI also encompasses developers' outlook on CSR as it has been depicted as a major area of influence for corporate responsible practice.

- ***'Recognition' and 'commitment'***

Bangkok's listed developers generated an overall high response to CER (**Appendix 14**). The statements made in company documents showed that up to 60% of the 44 developers studied acknowledged the importance of environmental sustainability. Up to 75% of the developers further expressed their commitment to operating their property business with consideration towards the natural environment. Moreover, 82% of the developers mentioned an element of environmental design or construction as part of their commitment towards environmental practice.

There was a noticeable pattern in the way developers addressed CER in their corporate policies. It was in a highly systematic manner where the rhetoric for environmentally responsible practice consisted of two key ideas: 'recognition' and 'commitment'. The statement on 'recognition' often addresses the developers' awareness and acknowledgement of environmental impacts caused by

property development activities; ‘commitment’ statements follow on closely to denote their pledge towards operating sustainably. The following four statements are examples drawn from the developers’ company documents that illustrates this rhetoric. Developers’ CER statements begin with an acknowledgement of the environmental impact caused by the development process, followed by a statement of commitment that addresses the company’s intent to operate sustainably:

The operation of property development business directly impacts the environment and society especially the development of large-scale projects. It can be seen that low quality properties usually cause serious environmental and social problems. The Company has thus given importance on business operation that is environmentally and socially responsible as well as incorporated the corporate environmental and social responsibility (CESR) into the business plan in order to pave the way towards sustainability (CERT-R)

The Company places importance on both sustainable development and environmental protection. Therefore, the Company not only determines layout of its projects and designs in respect of the architecture and landscape architecture in accordance with laws and regulations under relevant government agencies but also takes into account living quality of the customers and the community surrounding the projects developed by the Company (CERT-M)

The Company recognizes the importance of impacts on the environment. It therefore designs and makes quality, energy-friendly products. This is the concept behind designs and the choice of quality, energy-efficient and environmentally friendly materials. It has a system to control construction standards (ADV-R)

The Company is aware of the importance of participation in the environment conservation. Therefore the environmental policies are provided to be a framework for all of the Company’s operations (ADV-M).

While a third of the developers (36%) expressed their commitment towards environmental practice within the boundaries of legal regulations, up to two thirds (59%) expressed an intention to proceed beyond the minimal legal requirements by introducing additional environmental measures into their daily operations. For instance, setting up environmentally friendly value chains and collaborations with external institutions (e.g. universities, communities, private companies) to



explore innovative and environmentally responsible solutions. Certifiers and Non-certifiers alike, a high level of environmental commitment was observed within the developers' corporate documents were robust and unchanged across industry sectors.

However, despite the high levels of environmental commitment expressed within the oligopoly, only nine of the 44 listed firms had taken part in a green building project. This contradicts the expectation put forth by the literature that higher levels of CER accounts for more environmental practice. Based on the developers' company documents alone, there was no significant pattern between CER and developers' environmental activity. The Certifiers did not express significantly different variations of corporate environmental commitment than the rest of the industry.

The only exception, arguably, is the frequency of external collaboration present in the Certifier's history of activities. Four out of eight of the developers had published success stories of their partnerships for environmental projects. Sansiri's *Green Hope*, for instance, was a project the developer undertook with 17 other businesses that sought to promote the reuse of construction waste (Sansiri, 2014). *Pruksa Precast Factory Learning Centre* is another example where the developer, Pruksa Real Estate, allows university students to visit their factory and learn about their concrete production technology. Pruksa takes pride in being one of the few developers to have their own precast technology which has enabled them to reduce the amount of waste and pollution during construction. There are over 1,000 students that visit the developer's precast factory each year (Pruksa Real Estate, 2015).

- ***Interpretations of Corporate Social Responsibility (CSR)***

One of the strongest aspects of CER conveyed by the listed developers was the attribution of environmental responsibility through CSR policies. SET encourages their listed developers to display good corporate citizenship by demonstrating CSR in practice. Each year, the SET organises events that allow developers to compete for CSR as well as other sustainability and energy awards. These events recognise and reward organisations for their CSR and sustainability efforts. The

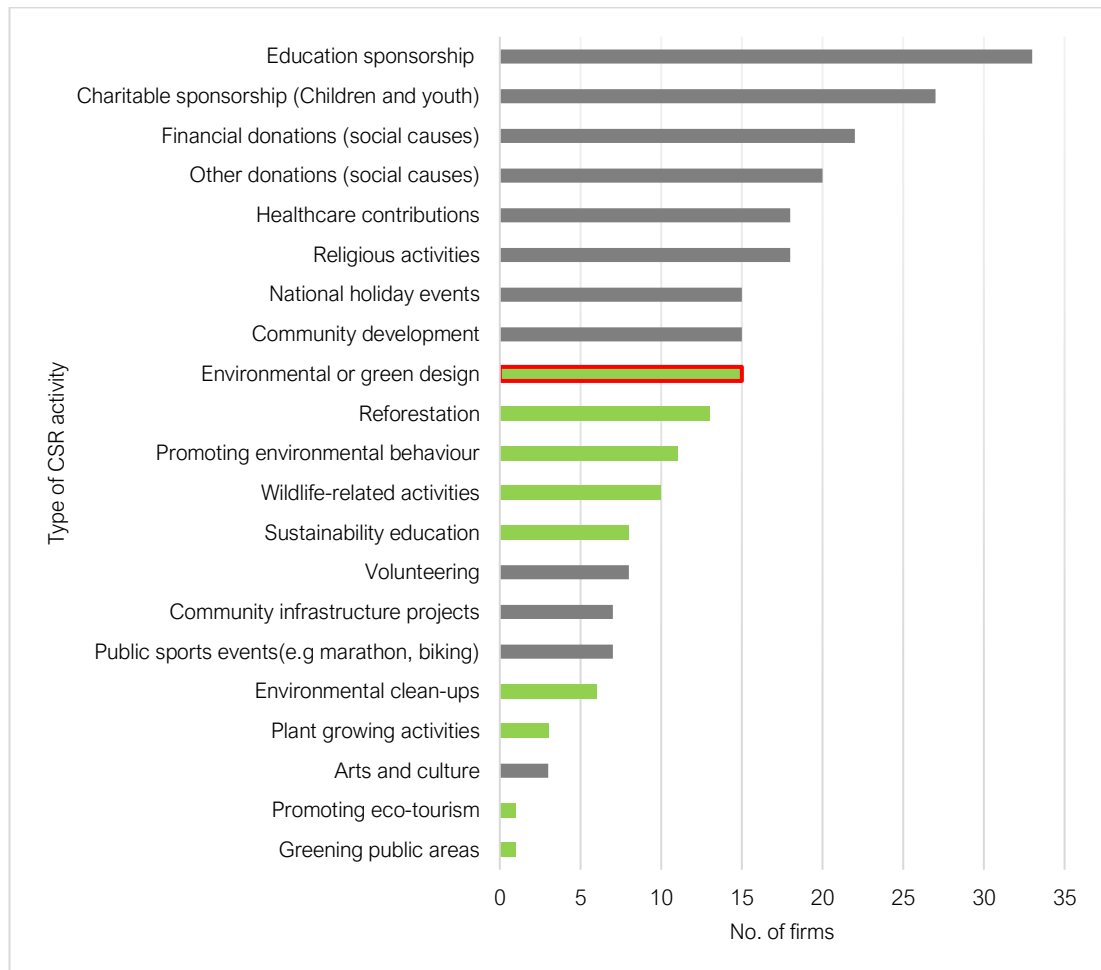
findings outlined in this section draw primarily on the way developers conceive and display CSR and the nuances in these understandings that in some parts differ from what the literature conveys.

Up to 75% of Bangkok's largest developers express their commitment towards socially and environmentally responsible practices via CSR policies and activities (**Appendix 15**). CSR statements and policies are documented in the developers' annual and sustainability reports. Eight of the developers also have dedicated CSR committees as part of the firm's structure. In general, the majority of developers have shown, via CSR, that they are well-informed and aware of the need for socially and environmentally responsible practices. The need for CSR was expressed from a moral and ethical stance by some of the developers, while others viewed it as contributing to the 'integrity' of their business operations.

Although the literature views CSR as a form of self-regulation to aid the development of sustainable properties (see e.g. Wilkinson and Reed, 2008), the findings show that CSR in the Thai context may not necessarily prompt the construction of sustainable buildings. Up to 45% of developers that address CSR in their policy (n=33) referred to environmental building and construction as a form of CSR, while the majority viewed CSR as a philanthropic activity to 'give back' to society (**Appendix 15**). Social causes and initiatives are prioritised, with developers often arranging their participation in activities external to the firm such as charity donations and other forms of community outreach.

A full list of CSR activities mentioned by the developers' in their company documents are compiled in **Figure 32**. Activities include financial contributions, donations, charity visits that are oriented towards supporting education or youth. Other social contributions mentioned include participation in religious activities (such as merit-making at Buddhist temples); activities that focus on community development (refurbishment of community buildings, provision of local jobs), donations for health and medical care (blood donation, financing of medical equipment), and organisation of community events for national holidays (Mother's Day, Father's Day, Thai New

Years, Children’s Day, etc.). Overall, it can be seen that developers’ CSR activities are heavily oriented towards social causes that support the well-being of youth and their access to education.



**Figure 32** CSR activities by SET-listed developers

*Source: Research fieldwork*

CSR did not often include activities that support environmental causes. While developers do consider the design and construction of green buildings as part of CSR, it was not treated as a major objective in comparison to other social initiatives.

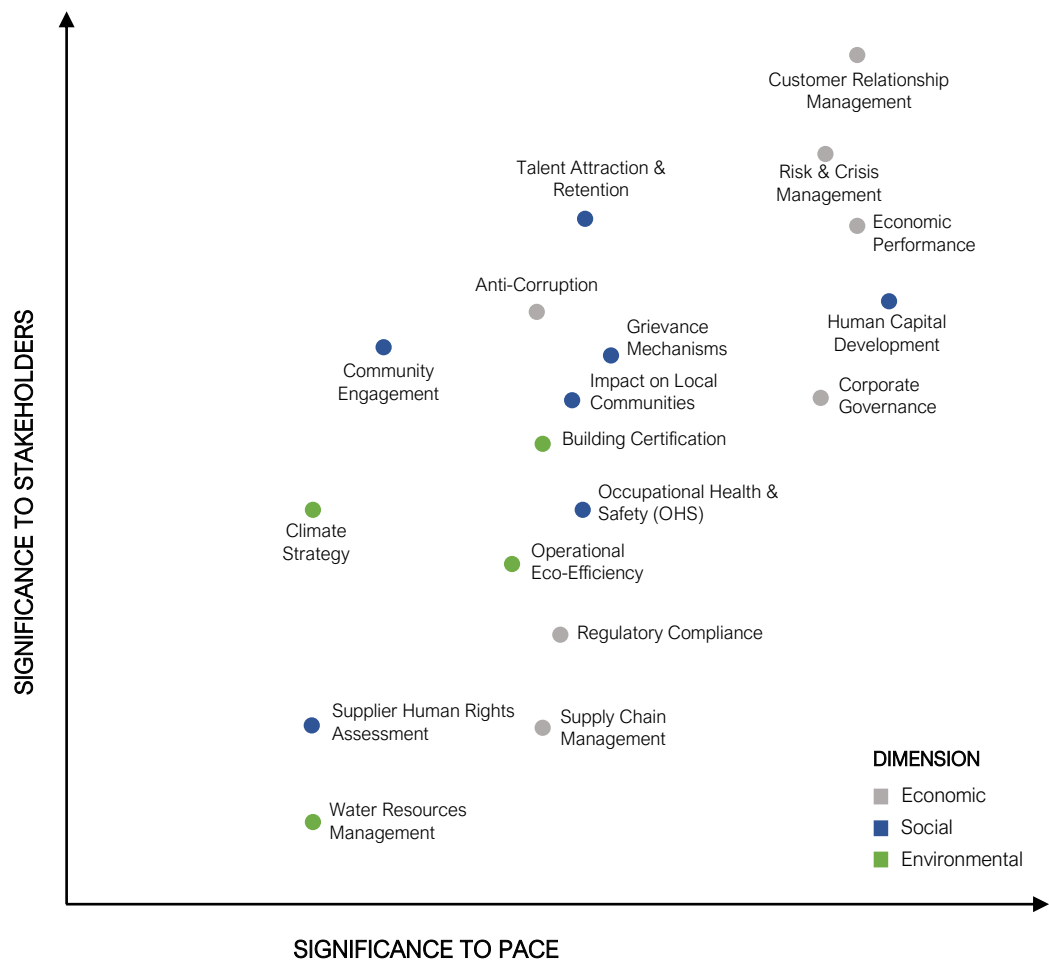
Findings from the interviews helped to clarify some of these nuances in developers’ interpretation of the concept. It became clear that developers’ understanding of CSR – while framed as a moral decision and an altruistic act – were also strongly associated with other business incentives.

Literature on sustainable business practice supports these claims and illustrates how companies are able to profit from addressing social and environmental issues by improving their reputation or by turning them into business opportunities such as allowing them to tap into sustainability-driven markets (see e.g. Hockerts, 2015; Schulte and Hallstedt, 2018). There was a consensus among the listed developers that CSR, although it has been incorporated as a philosophy or standard for practice, is also utilised as a publicity tool.

...I think developers' CSR is done to appeal to society...to communicate with customers. That's why they look for strategies that have the most impact for their business. (ADV3-R).

One of the easier ways to create long-term sustainable growth and shareholder value is to create a brand that people trust...[...]... If we're seen as trustworthy, if we're seen that we know what we're doing – that we help the society and help the community around us...[...] the next development that we do after [project name] will be easier to sell...and it *was* easier to sell...the one in [project name and location] because we have what we call brand equity (ADV11-M).

Developers explained that Bangkok's local population identifies more with social over environmental causes, which justifies developers' prosocial agenda. The same understanding is further exemplified by the materiality matrix published by PACE Development Corporation (PACE Development Corporation, 2017). The developer discloses its disposition on what the company and their stakeholders perceive as the most significant issues for the business to consider (**Figure 33**). The matrix presents the ranking of these issues in order of significance, with the *x*-axis showing the company and the *y*-axis showing the stakeholders' view.



**Figure 33** Materiality matrix – PACE Development Corporation

Source: Adapted from PACE Development Corporation (2017)

PACE’s materiality matrix illustrates the limited priority given to the environmental agenda when compared to economic and social objectives, by both the firm and its stakeholders. Economic and social issues are perceived as being most significant (the top being customer relations and the firm’s economic performance). Environmental building certification is positioned at the midpoint, surpassed by the impact on local communities. Climate change strategies, energy-efficiency in operations, and water management are ranked even lower towards the bottom of the axes.

### 3. Internal Environmental Awareness (IEA)

IEA is an AoI that was developed to explore how property developers addressed environmental awareness within their organisation, and how this may relate to their engagement in green building projects. During the course of the fieldwork, there were a substantial amount of documentary data in the form of corporate policies and employee codes of conduct that addressed the promotion of environmental awareness within the listed developers' organisations. More than half of Bangkok's SET-listed developers promoted environmental awareness through corporate policies and activities at the workplace that were similar across organisations.

- *Individual environmental behaviour*

Policies and activities undertaken to promote IEA can be broadly described as those that engage and promote employees' environmental responsibility on an individual level and those that sought to further an employee's environmental knowledge and technical skills at work through training programmes and such. Of those that expressed IEA in their corporate policies (n=24 or 55%), close to 80% associated it to the promotion of environmental responsibility and pro-environmental behaviour of staff members (**Appendix 16**).

Managers believed that by guiding and promoting environmental awareness amongst the staff, they can align their 'goals and vision' as a company:

Everyone – if we share the same goals and vision – cannot escape the fact that ultimately, whatever we do will reflect these goals and vision. This is why [our company] adheres to its goals and vision... as a criterion for the way we work. Every project can be tied back to this... to what the firm created... it becomes like a “prerequisite” (CERT6-M).

Developers mostly fostered environmental responsibility by encouraging their staff to engage in pro-environmental behaviour activities. Staff were encouraged, for instance, to engage in energy-efficient behaviour at work such as to recycle, switch-off lights and computers during lunch breaks and after hours, or reminded to turn off taps after each use. Some developers even organised internal corporate events such as plant growing competitions to promote environmentally friendly behaviour. Developers state in their policies that by endorsing pro-environmental behaviour, staff

would be encouraged to consider their resource consumption which in turn would help to instil environmental conscience and responsibility. The following is an example of one of the developer's IEA policy statement:

The Company is determined to use resources efficiently by taking into consideration social and environmental impacts. It encourages and educates employees to create a good environment at work by using resources effectively and efficiently and to take into account their responsibility to the environment while performing their duties. [...]

The conscience is instilled through the activities and trainings in which they constantly participate, starting from basic, everyday activity such as the reduction of paper use, increase the use of recycled paper, re-use of document files and regular maintenance of equipment, campaigns to conserve water and electricity, etc. (ADV-R).

These findings resonate with the existing literature on corporate environmentalism and pro-environmental behaviour. Banerjee et al., (2003), for instance, believes IEA of a firm informs corporate environmental practice. There is also extensive research on individual environmental behaviour that identifies IEA as the main determinant in pro-environmental conduct (e.g. Stern et al., 1999; Stern, 2000; Kollmuss and Agyeman, 2002).

- ***Environmental literacy***

It is, however, less evident how IEA influences green building. There was a similar proportion of Certifiers (33%), Advocates (48%), and Non-Certifiers (25%) that featured IEA as part of their corporate policy. The anticipation that IEA would be distinctively higher among green building developers did not hold true.

While IEA and engagement in green buildings is loosely connected at best, one key finding that emerged from this AoI was the significance that developers perceived around environmental literacy<sup>21</sup>. The developers interviewed believed that a change in the *public's* environmental literacy was needed to transform the market for green building. Developers explained that increased

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<sup>21</sup> *Environmental literacy* here is defined as 'an individual's understanding, skills and motivation to make responsible decisions that considers their relationship to natural systems, communities and future generations' (OSU, 2014).

environmental awareness should change the mindset of prospective homebuyers and tenants, which would in turn increase demand for green buildings for developers to cater to. This postulation coincides with the later findings on PGBP where up to two-thirds (67%) of the developers interviewed believed that responsibility rests with the public to incentivise developers to build green by creating an attractive market.

Looking back at the literature, a number of studies have explored this proposition although findings remain inconclusive. The connection between individuals' environmental literacy and their demands for green building is unclear. Hostetler and Noiseux (2010), for example, found no significant relationship between environmental knowledge and homeowners in green communities. Wilkinson et al. (2014) similarly contends how 'it is not possible from [their] study to conclude unequivocally that green buildings are inhabited by green occupants' (p.17) or even that 'green developments alone can harness the attitudes and behaviours associated with green citizenship (p.1). Hong (2013) and Liu et al. (2018), on the contrary, have found that environmental knowledge and attitude are reflected in the public's intention to live in eco-friendly homes and certified green buildings.

#### **4. Corporate Risk-Orientation (CRO)**

CRO as an AoI was set up to investigate the firm's identification and response to risks in the external environment in two ways: 1) how developers assess risks in their business and external environment; 2) a look into the developers' risk culture, and whether they have a risk averse nature. This section addresses both parts to the analysis.

- ***Identification of risks***

Much similar to the findings on CMP, CER, and IEA, developers' company reports showed that they shared similar understanding and identification of risks from their external environment. Developers' documented risk in their reports substantiates their commercial nature and business orientation. Over 80% of developers were mostly concerned with financial risks and operational challenges largely associated with changes in the local economy, volatility of the market, political



economy, and government policies. Developers were often highly concerned with what these may mean for procurement of land and labour (**Appendix 17**). Environmental affairs (i.e. climate change, sustainable development, etc.) were not widely conceived under the developers' framing of 'risk'. Only six of the 42 developers accounted for risks from climate change and natural disasters. Other risk factors identified by 10% of the developers included those related to sourcing of construction material and technology as well as those borne by the company's shareholders.

- ***Risk aversion***

On risk culture, findings from the interviews suggest that the listed developers are equally risk-averse. In terms of green building and its related building technologies, developers welcome the incorporation of new and innovative technology only with sufficient proof of prior successes. Their primary concern was with the reliability of technology and skills for future maintenance. Certifiers and Non-certifiers shared this perspective and contend that the organisation is likely to introduce new technologies only once its performance has been repeatedly demonstrated:

We are open to new green building technology [...] but what we look for apart from being a new type of innovation is a proven track record for that technology. Is it reliable... is it durable... often when the technology is too new maintenance becomes difficult [...] What we prefer is proven technology that is not too new... those that have been tested and used by others for a period of time... we are ready to adopt. Not when it becomes "this is the first project in Bangkok from America" – we do not want that (CERT5-M).

Innovation is important but at the same time is just the starting point. Green building development has to be through proven technology. If there is no innovation then for sure there will be no new technology, but technologies that remain an innovation with no track-record make decision-making harder for investors, for developers. Examples... case studies make decision-making easier... everything we do... before we invest...we have to conduct a risk assessment. The risk assessed for a technology that has not been proven versus one with a track-record will be different (CERT3-C).

The findings show listed developers are accepting of minimal risks. This culture typology aligns with what Scholz (1987) terms as *reactive* and *anticipating* cultures, where change is only sought if and when the conditions for change are well-informed.

Consequently, the developers' risk culture reflects much of their willingness to adopt green building practice. To minimise their risk, developers interviewed posit that they are ready to adopt green building practice provided there is enough financial assistance from the local government and incentive from the market. At present, the developers contend that construction of green buildings costs 10 to 15% more than the construction of conventional buildings. Their concern with the investment is that constructing at a higher price means undesirably increasing the price of units in an already competitive market. However:

If there's something about energy-efficiency or green building practice that we can clearly explain to the customer that enables us to achieve a premium on our sales or to achieve a faster sell-through rate, then typically we would adopt it... It's a very rational decision on behalf of the developers (ADV11-M).

However, the findings highlight that the main difference between Certifiers and the rest of the group is the way in which developers *perceive* and assess the risk itself. Certifiers contend that it is the process by which financial returns are calculated that causes perspectives to fundamentally differ. Certifiers are able to envision the benefits that green buildings have to offer in a different light, and this becomes an adequate trade-off for the higher cost premium.

From our experience, we can see that the initial investment cost of [green building] technology is high. However, at the same time, there are starting to be case studies or examples that clearly show how energy-efficient buildings *do* cost more to invest in but can in itself be used to recuperate on the investment. It can be used to command higher rent or even acquire clients with greater potential (CERT3-C).

We use LEED in some of our projects... and certainly, this affects the investment cost. But the way that we see it is that it may reduce operating costs... reduce electricity use (CERT6-M).

When calculating the feasibility of projects, Certifiers believe that most developers do not take into account returns from operational phases of the project and discounts the chain of benefits that green buildings entail.

Everything is related [...] some elements trigger each other like dominoes...like a "domino effect". We have to calculate each baht each satang from this effect to see what we get in return. [...] Some do not consider this – how changing one item [in the design]

can affect other items in terms of *capex* [capital expenditure or] capital investment (CERT6-M).

Findings from CRO show that the way developers identify and respond to risks in the external environment is similar; that they are equally risk-averse and reluctant to engage in new modes of practice provided benefits and return on investments are unclear. Developers with green buildings, however, undertake these projects because they are able to process the associated risks and calculate return on investments differently.

## **Discussion**

This chapter presented an overview of the findings on the AoIs behind organisational culture (CMP, IEA, CER and CRO). The four areas sought to explore factors and psychological constructs embedded within the organisation that may influence developers' adoption of green building practice. At large, findings showed there were no significant differences in the corporate values and facets of culture between Certifiers, Advocates, and Non-certifiers. The 44 developers shared similar conceptions of business objectives, philanthropy, corporate environmental awareness, and were generally risk-averse. Developers' response to these areas of practice were standardised across their corporate reports but less so in their in-person interviews (discussed further in **Chapter Eight**).

In reflecting on these constructs, it is evident that there are elements within the industry culture itself that constrains developers' adoption of environmental practice, 'patterns of behaviours' or *institutions* that stem from cultural and normative practices within the property industry and the oligopoly. Bangkok's listed developers have shown an obvious pattern of behaviour focused on business leadership and growth, and market-led initiatives. These conform to the social contract established by the capitalist market economy and stakeholders, which are the foundation to their commercial mentality.

It is my intention to draw attention and discuss these nuances further as the developers' organisational culture and industry culture are restricted and regulated by these informal institutions. Rousseau (1995) defines social contract as a promissory note based on the notion of reciprocity; an 'obligation between work groups and organisations' (p.13). In a similar light, values that inform this contract are shaped by factors in the developers' external environment; primarily society, national culture, and legal systems that set a precedent to the scope and boundary for appropriate practice.

The four psychological AoIs were employed to help analyse developer behaviour in the context of organisational culture. **First, there was no significant difference in the way Bangkok's SET-listed developers articulate the firm's CMP and their responses towards CER or IEA.** Developers' CMP, as outlined at the beginning of the chapter, was framed largely around business growth and leadership where their prioritisation is in the assurance of financial growth and profit for their shareholders. Following this are corporate values on delivering quality products and services. In the context of business, achieving quality products and services can enhance sales and market leadership.

Developers generally perceived the promotion of IEA as a means to increase environmental practice and engrain certain environmental values that may be carried forward in daily activities to increase energy-efficient behaviours. However, the extent to which environmental practice within the firm informs green building practice (or even environmental practice of development projects at large) is less evident. The scope of employee environmental behaviour is less connected to the delivery of environmental projects or the firm's strategic decisions. This may particularly be the case for Thailand where the hierarchical nature of firms hinders any bottom-up approaches in decision-making. Regardless of the developers' level of engagement in green building practices, IEA was addressed similarly across the group. Furthermore, there was a common belief among developers that higher environmental literacy and awareness amongst the public will increase demands for green buildings and shift the market towards sustainable solutions.

CER was similarly represented across the 44 developer organisations where developers showed high levels of commitment towards CSR. Drawing on the similarity that developers project across their conception of CMP, IEA, and CER, it can be postulated that market competition within their oligopoly has standardised some of these values and norms. For most of the developers, CSR did not extend to green buildings. Most of the Bangkok developers' CSR activities were concentrated on social philanthropic activities performed outside of the organisation, and often did not include environmental activities.

**Second, findings from CRO showed that Bangkok's SET-listed developers were equally risk-averse; there were no implications that developers engaged in green building projects because their risk culture was more accepting of risk.** During the interviews, developers asserted that green buildings cost 10 to 15% more to build than conventional buildings and hold a very niche position in the market; these risks were identified in a similar manner across the developers interviewed. The only difference that differentiated green building developers from the rest was how they *perceived* and accounted for these risks. They were able to envision the tangible and intangible benefits of green building and use this to compensate for the higher initial investment. It was thus not a risk in the external environment or the risk culture of the firm itself, but rather the perception and outlook of individuals within the firm.

Based on the findings within this chapter, I propose that developer behaviour is influenced by norms which exist on three levels:

- 1) **Firm level: These are normative contracts that exist within the firm's own organisational culture.** In the case of SET-listed developers, norms at the firm-level are created and retained through the firm's history and experience. This leads to the creation of corporate values that are collectively shared and retained within the firm's culture and its members. For property developers, these values influence developers' approach and outlook to property development.

- 2) **Industry level: These exist as normative contracts established within the SET-listed developers' oligopoly.** Being a tight-knit oligopoly, developers have established and accepted a normative standard for practice. Developers seek to adhere to these standards in order to retain their position and remain competitive. This results in a large degree of homogeneity in the way that developers approach their business.
  
- 3) **Society level: Norms exist in the form of social contracts between developer organisations and the community.** These norms define how developers interpret their obligations to the public – i.e. the market, shareholders, and the wider society. Governed by these norms, developers behave in a way that resonates with the requirements of the public. Conforming to societal norms requires adherence to market demands and shareholder expectations.

The first is evidenced namely through firms such as Univentures and Singha Estate where the developers' history and past experiences have shown to inform the company's strategic decision. In the case of Singha, the firm's philanthropic culture was established to balance out their brewery business. This has led to the developer's corporate philosophy of operating with 'PRIDE', that has informed them to 'take pride' in their practice by operating sustainably and constructing green buildings. Similarly, Univentures' confidence and expertise in energy-efficient design and technology was gained via decades of experience in the energy and manufacturing sector, making them more receptive of green building.

The second and third boundaries of developer behaviour are overseen by a broader series of norms found in Thailand's wider cultural and market institutions. These affect the developers' view on market positioning and the need to renegotiate their directions according to what would 'sell' or what they need to do to survive. As a result, developers share a common disposition towards their approach to property development and business practices, corporate responsibility and risk culture, as well as the rhetoric across their company documents. Thailand's collectivist culture is described as one that prioritises family and communities, and one that functions on herd mentality (Pimpa,

2012). This can be seen serving as foundations to the Thai perception of CSR, and consequently for developers, a desire to gain public recognition by adjusting to what is considered normative regardless of whether it is the most effective means to undertake that practice.

Normative and social contracts underlie decision making within the firm, where there is pressure for conformity (Schein, 1984; Rousseau, 1995). Thus, I suggest that it is important for these norms to be recognised as a part of the psychological influence that restricts developer behaviour and their uptake of environmental practice. I return to further discuss norms as a psychological constraint in developer behaviour in **Chapter Ten**. To restructure these norms, there is a case for revisiting or ‘re-institutionalising’ how these norms are fostered and retained. I discuss this further in **Chapter Nine** from an individualistic point of view and in **Chapter Ten** where I further outline certain recommendations to how some parts of these institutions may be revisited within business economics and real estate disciplines.





# Chapter Eight

## Findings on Individual Constructs

**Chapter Seven** presented empirical findings on the first four psychological AoIs that are representative of Bangkok developers' organisational constructs (CMP, CER, IEA and CRO). This chapter relays findings on the rest of the four psychological areas on the leadership within the developer organisations and their individual constructs (MO, MEC, MEO, and PBGP). This chapter discusses 22 SET-listed developers as these AoIs focus on data that cannot be found during the scoping study, and can only be interpreted from interviews. In comparison to the findings on organisational constructs, findings from individual constructs signify a greater difference between the developers.

### 5. Managerial Objective (MO)

MO investigates the objectives and priorities of top managers in developer organisations to understand managerial perception. The theoretical framework proposed in **Chapter Three** draws attention to the influence of individual constructs of decision-makers in the organisations.

- *Priorities in development*

MO sought to examine what managers in Bangkok's listed developers regarded as important in the development process. During the interviews, one interviewee did not share their view on their objective as a manager. 11 out of 21 managers (57%) addressed the demands of their customers and the quality of projects (including function and safety) as the main priority in development projects during the fieldwork interviews. These developers want to be trusted and in order to do so seek to ensure that their consumers are happy.

We want to give them the best – not the best of what it is – but the best for how much they are willing to spend. [...] Our philosophy is we want to be an [business] operator that is

held in the heart of our consumers. We do not have to be the type that is eye-catching – the type that customers line-up to buy our products – but we want those that buy from us to find comfort and confidence in our products. That the quality of our products is worth their investment (ADV3-R).

Comparatively, safeguarding the environment is seen as a secondary objective, with environmental practice (29%); and business profitability (24%) as additional priority areas (**Appendix 18**). Only six of the 21 developers interviewed placed environmental agenda at the forefront of their development agenda. While there is ‘no compromise’ to be made on the social responsibility of developers, the majority of developers perceive environmental responsibility as something that is ‘*good to have*’.

...my personal view is for social responsibility to consumers, that one is mandatory, there is no compromise... because you’re talking about safety, life...and health... you cannot compromise. Environment...I think is “good to have” (ADV10-M).

Developers explain and justify green building practice in the same manner, where it is not seen as mandatory but an addition to projects that is ‘nice to have’. Some developers also contend that green buildings will only become mandatory in practice when there are clear economic incentives.

This is a personal viewpoint based on my experience at [company name]...I think in the private sector we are heavily driven by profitability...and therefore green building practice is not a “must-have”, it’s a “nice to have”. It becomes a “must-have” when we can economically justify why green building makes more sense than non-green buildings (ADV11-M).

Managers interviewed often explain how Thailand is ‘still not there yet’ in terms of environmental conscience upheld by the public and the property industry.

For the past few projects we have implemented measures to try to become a real green building... we’ve tried...we didn’t promote this but we want to do this [...] on one hand we feel that it is our responsibility to be responsible for the world’s environment but we are not standing at the front of the stage, just doing things behind [the stage]... but another thing that we give weight to...maybe more than the former...is that we want to give good things to our customers...enable customers to use [their] buildings with convenience and save on their expenditure. [We] don’t think so far as to save electricity to use less coal...[we] are still not there yet (ADV3-R).

Managers' priority of customer satisfaction can be conceived as pertaining to their business outlook, brand image and reputation, while also ensuring that the quality and safety of their projects meet requirements and are of high standards to maintain organisational legitimacy. The consequences of not factoring in the consumer exceeds merely the loss of a competitive edge; failing to conform to health and safety regulations can cost developers their business. In other markets (particularly in the West) organisational legitimacy may also require firms to show environmental accountability (see e.g. Lenssen et al., 2008; Utting, 2008). That is, a firm's lack of response to environmental issues can impact their credibility to operate. This seems to be less of a concern for the developers.

- ***'Luxury' in new builds***

A closer look into the developers' portfolio shows that the majority of new builds have been branded and sold under the concept of 'luxury'. Three of the most expensive condominium projects in Bangkok, for instance, were delivered by the listed developers: *98 Wireless Road*, a GBP 186 million condominium project by Sansiri, with 77 apartments priced between GBP 1.5 million and GBP 6.4 million (**Chapter Five, p.170**); *The Esse*, a super-luxury condominium by Singha Estate in joint-venture with Hong Kong's developer Hongkong Land (**Figure 34**); and *Nimit Langsuan*, a super-luxury high-rise residential tower by PACE Development Corporation with units on offer at THB 27 million (GBP 671,000) (**Figure 35**).

Developers interviewed posited that delivering quality projects was an essential priority and contended that the trend for residences in Bangkok is not about being green. Findings suggest that luxury branding may be the priority concept in the developers' approach to new builds. The trend for luxurious homes and apartments in Bangkok resembles preliminary findings on the industry landscape (see **Chapter Five**) and is evident in the type of projects undertaken by the developers. Residential developers are focused on creating luxurious homes that cater to the middle and upper segments of the market. Trends for high-rise luxurious condominiums have intensified in Bangkok over the past two years; so much so that it is reported that developers are 'locked in an intensifying race to lure wealthy buyers into purchasing multimillion-dollar luxury apartments'(Corben, 2017). Targeting local as well as foreign buyers, Bangkok's new condominium developments are said to

cost more than THB 300,000 (GBP 7,500) per sq.m. on average, doubling the price of properties in the mid-range market.



*Figure 34 The Esse by Singha Estate*

*Source: Singha Estate (2016)*



*Figure 35 Nimit Langsuan by PACE Development Corporation*

*Source: PACE Development Corporation (2016)*

Western design is also a key feature in what the market construes as luxury. This has led to the branding of projects under Western influences. For example, Quality Houses' *Laddarom Elegance*, a series of housing projects in the form of gated communities, is said to feature 'Tuscan style' architecture and marketed as 'luxury-style mansions with high-class architecture from Italy' (**Figure 36**). Land and Houses *Villaggio* housing project similarly features 'European Passion' and 'the enchantment of living a fascinating life in an atmosphere of European style' as the main concept (Land and Houses, 2017c). The series of gated communities have been marketed under the slogan, 'The European Passion, start your life above anyone with the European lifestyle' (**Figure 37**).



*Figure 36 Laddarom Elegance by Quality House*

*Source: Quality Houses (2015b)*



*Figure 37 Villaggio by Land and Houses*

*Source: Land and Houses (2017b)*

## 6. Managerial Environmental Commitment (MEC)

The next two AoIs on MEC and MEO investigate the environmental attitude and outlook of managers in Bangkok's largest developer organisations. MEC was set up to examine the level of commitment that managers show towards environmental preservation. MEO, on the other hand, investigates the managers' outlook on environmental practice in relation to their business operations. There are slight overlaps between the analysis of the two AoIs.

- *Doing 'the best we can'*

Contrary to the expectation that Bangkok's limited uptake of environmental practice is due to the industry's lack of commitment, up to 77% of the developers interviewed have considered integrating pro-environmental measures into the development process and contend that they are already doing *'the best they can'*. Following this, only a third (36%) of the managers suggested that they will only be prompted by business justifications (**Appendix 19**).

These responses suggest the industry is well aware of the need for environmental solutions and that top managers from the industry are willing to commit. However, efforts in practice are less realised. When probed further, it became clear that managers are doing *'the best they can'* under their given circumstances. Managers' core objectives are to safeguard the interest of the firm, delivering what is best for their consumers, and are tasked with ensuring the economic viability of any proposed development. Although it is in their personal interest to pursue environmental practice, the belief that these projects would cost more seems to be enough to deter managers from any sort of voluntary environmental commitment that is beyond the firm's interest or what is required by law:

One has to understand that environmental practice is usually exchanged with a slight cost premium. If there is no determination for it - especially in Thailand where regulations are lenient [...] most would just do enough to get by...within legal compliance. Most people are just happy with that. We do not strive to do "the best" that we *would* like to do because, as said, to do the "the best" is certainly exchanged with added costs (ADV3-R).

This brings the narrative back to profitability being a priority; developers are required to reflect on the extent to which they can incorporate environmentally friendly practices without adversely

affecting their businesses. *Cost* is described as holding its place ‘in the heart of developers’ (ADV4-R), thus if environmental practice offered economic benefits, ‘any cost-efficient green solution would be seen in a good light’ (ADV4-R). The theme is one that resonates with the majority of the managers where environmental measures are often considered for their economic viability:

No one is able to say that being more energy-efficient does not require a lot of money (NON2-C).

The trend of going green...has to sell. When you do it, it *has to sell*... It is not only about “getting a box” [meaning interpreted as ‘ticking a box’]...it needs to make money too (NON3-M).

Cost premiums are closely coupled with environmental activity and a major part of the developers’ discourse. Managers interviewed contend that it is difficult to engage in any sort of voluntary activity that bears an additional cost to the firm. It was challenging, or rather *impossible*, to steer developers away from the economic rationale.

- **‘*Selective prioritisation*’**

Essentially developers are aware of the contributions of environmental practices but are unable to fully commit because of the added costs to the firm. The implication this poses in practice is that firms become ‘selectively’ committed and develop a preference for certain environmental measures over others. It results in what this study terms hereafter as *selective prioritisation*, whereby firms choose to only implement environmental measures that boldly resonate with their consumers’ demand. Concerns about cost and the commercial nature of the business cause firms to hold back their environmental commitments and selectively choose to implement only what is ‘valued’ by the market:

Green processes cost more [...] but the customers don’t value this. Between buying a product that comes from a green factory and a product that comes from a normal factory, customers don’t care...isn’t? Currently, value is not given here. In terms of people that are in the business, although we know that it is good for the overall picture, but if the customer does not attach value to it, it becomes complicated. More complicated in terms of competition... Businesses are not a monopoly, there is fierce competition in the market [...] though there are green products for us to choose from, in the end, it is necessary to



see whether customers value it... If customers value green products and are willing to pay more for green products, then we can do it (ADV4-R).

It is also postulated that selective prioritisation may occur as a result of the listed developers' socialisation within the oligopoly. Developers may be constrained to practices adopted by their competitors through market observation and benchmarking, whereby their risk-averse culture may not enable commitment to new practices beyond what is currently practiced by the oligopoly (i.e. there is no demand or rationale for developers to heighten risks by outperforming). Decision-makers may also be liaising across the sector to reach a mutual agreement to incrementally adopt a new practice which may also act as an added force of constraint.

In Bangkok where the public's concern for the environment is regarded as generally low, managers assert that the only way to make green projects appeal to customers is if they offer a direct benefit to the consumer. By targeting measures that consumers would benefit the most from, developers believe that consumers will be less reluctant to pay for the cost premium. As a manager explains,

People place significance on the "individual". People don't look at the overall picture, isn't? When it comes to matters that are self-beneficial – okay, they want that. If it's [the type of] *green* that they can benefit from, they are okay, they are willing to pay...such as beautiful gardens. But if the [environmental] contribution has more to do with the grand scheme of things such as reducing the world's carbon [emissions], they cannot see the impact. Why would they pay to reduce global carbon while there are many other factories that are emitting carbon – they don't see it (ADV4-R).

Findings from the fieldwork suggest that green building measures were most frequently implemented by developers in the design phases of the project; and among this is the provision of green space (see **Chapter Six**). Selective prioritisation and cost-effectiveness may serve as an explanation as to why these measures may have been selected and prioritised over others. It is postulated that these same reasons may also explain why there are a much higher number of Advocates (61%) in Bangkok's private property industry compared to that of Certifiers (20%) and Non-certifiers (18%).



The industry's focus on the market may also explain how terms such as 'green' or 'eco' are used in branding development projects; some of which have merely been designed with an abundance of green space (gardens and vegetated areas). Take for example AP (Thailand)'s *Terraria model* of townhomes that are marketed under the concept of 'design for green living' with features of pocket gardens on the second and third floors (Realist Blog, 2018; **Figure 38**); or Origin Property's *Tropicana* whose project concepts 'eco green condo' and 'eco living' are used to allude to 40 percent of green space provided in the design (Origin Property, ca. 2019; **Figure 39**).



**Figure 38** *Terraria model housing by AP (Thailand)*

*Source: AP (Thailand) (ca. 2019)*

The purpose of these examples is not to discredit the aforementioned developers or their projects, but to discuss the wider implications that this may have on the industry. Previous studies have shown that inaccurate environmental marketing can erode the market's confidence in green products which in turn demotivates companies from producing environmental products in the first place (see e.g. Furlow, 2010; Delmas and Burbano, 2011). That is to say, the inaccurate use of the term 'green' to describe development projects at present may deter occupants and developers by further reducing the demand for the actual concept of green building in the future.



*Figure 39 Tropicana 'Eco Green Condo @ BTS Erawan' by Origin Development*

*Source: Origin Property (ca. 2019)*

- ***Market-led or market-lead***

In so far, developers have posited that environmental practice entails a cost premium; a contention agreed by Certifiers, Advocates, and Non-certifiers alike. Why, then, are Certifiers more accepting of this increase in cost? Findings on CRO (**Chapter Seven**) suggests that Certifiers perceive the risks associated with environmental practices differently, and findings on MEC supports this claim. There is a difference in the way managers from Certifier organisations perceive and discuss environmental commitment which may lead them to navigate green building practice differently. To illustrate this, two main findings are drawn upon.

First, managers with green building experience tend to relate the implications of environmental practice to sustainable development on a broader scale; they would often speak about their efforts to protect the environment as a way of 'making our country better' (CERT1-R) or in 'leading the country towards sustainable development' (Sansiri, 2017).

How many public parks do we have in Bangkok? Bangkok is not small ...yet we have so little parks... there is an issue here. Green building codes issued [by the BMA] is a type of regulation but the way developers see it...just complying with the code is not sufficient.

Today we are trying to take things further – speaking explicitly about us and not others, we try to provide green space whether it is directly or indirectly...even energy-efficient buildings... we use LEED in some of our projects (CERT6-M).

In doing so, they are committed to a wider group of stakeholders that extend beyond the immediate beneficiaries of the firm. They are concerned with how they would be able to share, foster, and disseminate their environmental knowledge with members of the public. This corresponds to the greater amount of policies on knowledge-sharing and dissemination of sustainable practice that Certifiers have as part of their CSR (see **Chapter Seven**). An example given by one of the managers during the interview is how they worked collaboratively on a beachside project with a local community to share the firm's knowledge on environmental practice. This approach contrasts with the norm where managers are usually more concerned with what environmental practice means for their firm and their clients.

...we have a [property] ...outside of Bangkok in another province. We are concerned with the coral reefs there. We try to work collaboratively with the local community there. In front of the [property] is the beach...with boats...lots of boats belonging to locals [that are] parked there. The coral reefs are all dead! Because everyone is parked there. We are not the owner of the beach – the beach belongs to a national conservation [authority]. But we try... try to speak with the community...whether it would be possible to manage the [boat] parking in an organised manner to allow the corals to grow. [...] [We tell them] that the way [it is now] is not beneficial to anyone [...]. In the end... once the corals are gone, the beauty is gone, your career is gone too. No one benefits. [...] This sort of thing...we try to do. Wherever we go we try to help neighbours and local communities understand...[...]. It's the same as wherever we go we should contribute – not just contribute – but become a *pioneer* in [sharing] what we know (CERT6-M).

Second, the attitudes and beliefs of most managers' perception of environmental practice is a stark contrast to the way managers from LEED certified firms would respond. Managers from firms with or without green buildings equally agree that Thailand's lack of public environmental concern results in limited demand for environmentally friendly options. The difference between the two, however, is in their response to these given conditions. The conventional understanding is that the behaviour of developers is one that is led by the market:

The profession of a developer is not one that leads the market, we are people that do [business] to *answer* the market... like, we do not have a duty to make a house to say, “you should live like this”. But it is our duty to say, “we know that this is what you want, and we are providing it”. Therefore, the market has to lead...*always*. Developers compete among themselves to beat, to catch up with the market. We look at the behaviour of consumers, if one day they start to go green, we definitely would go green. But we are waiting for this *signal*...however there has been no signal (ADV1-R).

Managers from green building firms would argue that they themselves – as developers – are in fact a part of creating and leading changes in environmental market conditions.

I don't want to sell merely *facilities*... because everyone is all the same...but the impact that follows – what can you see? A *message* has to be conveyed. That is to say, whoever buys from us, we want to see that that person is like us. [...] would it be someone that is socially responsible? [...] ...everyone's priority is different... so how can we make people feel this [to have an environmental mindset]. [...] (CERT6-M).

This change in understanding is what Certifiers relay as part of their commitment:

...it is the role of every organisation from everywhere be it the government sector, the private sector, the education sector, family – is also important. [...] family is fundamental. But the fundamentals of the family, where do these come from? Maybe education? Where do parents get their information from? It comes from various organisations that have explicit campaigns to participate in making people understand today's problem... it is how to make people understand – “hey, the things that you do – how does it affect others? which generation does it effect? Is it you? or the next generation, or your children?”. If we see it as short-term then this is difficult. If everyone sees it as short-term, short-sighted – not far-sighted but short-sighted – then there will be a problem (CERT6-M).

Interview findings suggest that the conventional understanding of private developer behaviour is one that is content to follow whichever direction the market seeks to transition. That the prime responsibility of developers is to their shareholders, that economic transactions are key, and that their role as a developer is to outperform their competitors. Developers recognise that environmental practice is ‘good’, but the point at which it would inform managerial decisions is when sustainable practices are demanded and able to offer commercial benefits.

It is not commonly seen as part of the developer's duty to shift the market towards the desired solution. If environmental efforts can be achieved within limits and there is a strong economic incentive, then it would be sought after. If not, developers move on to alternative solutions.

Developers that develop [green building] need to begin by addressing questions on what they can do to save energy, how to care for the environment...[and take this] seriously. For now, we [our firm] think about it because we hope to gain commercial benefits from the measure. It becomes a "can-be-good" and if not... [we] explore other things. It turns out that commercial benefits still remain the lead factor for local developers... not the environment (ADV3-R).

In contrast, the environmental attitude (MEC) of managers from Certifier organisations involves more than just profitability. Managers from these firms do not justify their decisions for going green as merely another economic response (though they do acknowledge that commercial benefits are important); nor do they see the government and market as entirely responsible for creating these demands. Managers from Certifiers rationalise their contribution on a much more personal and individualistic level as a reflection of their own values which translate to how they perceive their duty and role as a developer. They intend to be a part of the change they wish to see rather than following the less risky path waiting for environmental and sustainable practice to happen collectively.

## **7. Managerial Environmental Outlook (MEO)**

As findings on MEO can overlap with that of MEC, the analysis undertaken in this section will be attentive towards distinguishing the two. MEC presented findings on managers' individual perception of environmental practice (i.e. how they are committed/whether developers should commit – if so, why or why not). This section will look particularly at how managers view environmental practice in relation to the property development business (e.g. the benefits that it has to offer or the drawbacks). Findings illustrate that there are certain commercial benefits of environmental practice that can be recognised in Bangkok's real estate market. Over 80% of managers interviewed see environmental practice as beneficial to the firm; 45% describes it as being dependent on current market conditions, mainly depending on statutory requirements and

consumer demands. Around 27% of the managers interviewed see environmental practice as a disadvantage to the firm, mainly for reasons that stem from economic outlook (e.g. increased costs, no return on investment, loss of market competition) (**Appendix 19**).

- ***Brand image and environmental marketing***

One of the most prominent consensuses identified by managers during the interviews was the benefit that environmental practice has in supporting developers' brand image and equity. Over 82% of the developers interviewed addressed brand equity and environmental marketing as the main benefit of environmental practice (ibid). At large, developers agree that showing environmental consideration has a positive effect on the business and helps with the company's image. Caring for the environment can be seen as a way to get people to trust the company and create brand equity in the long run. In these instances, environmental practices can be seen as an 'investment' worth making.

These firms understand that being "environmental" is not an expense, it's an investment. So, being environmental is an investment in your property that you then extract the value out of later on through either a better reputation, higher prices, or the ability to – some of these developers manage the buildings themselves – so it's easier for them to manage the building, and when it works, the cost is relatively low to do these things, and the benefits can be quite high. [...] I don't think you can have brand equity at the high-end without also at least paying some attention to the environment – even if it's only superficial (ADV11-M).

Developers also see environmental efforts as part of the strategy to appeal to the upper end of the market. Constructing green buildings can also be strongly seen as a core part of this. When asked about their motivations behind green building practice in Bangkok, most managers are convinced that those that engage in green buildings do so to attract foreign clients or niches in the market. This particular segment of the market equates to multinational corporations, the upper market, and environmentally-oriented homebuyers.

It's not been practiced in Thailand or Bangkok...but I feel it's only with the larger developers because they are more international. So they engage consultants from overseas

and this consultant will probably sell them the idea – “hey why don’t you consider this, you know, green design in the buildings” (ADV10-M).

Green buildings...I think they want to sell it to people who are informed of these issues – the new generation. Not foreigners, but Thai people. There are certain groups that have the knowledge, that when these issues are talked about would go “hey – sounds great!”. This should be the new generation. Speaking with the older generation, telling them about loving the world [saving the planet] they probably wouldn’t be interested (ADV3-R).

The above set of findings on MEO coincides and supports the findings from CMP on international recognition and green building. Developers perceive environmental practice as an enhancement of their corporate image and appeal in overseas markets. These values can also extend to encompass the protection of their market position in the oligopoly by building a barrier to entry for smaller competitors in terms of brand value and green building costs.

- ***MEC or MEO***

The findings on MEO make it challenging to determine what is actually shaping developers’ decision to undertake environmental practice: is it driven by the managers’ own commitments or is it the benefits that environmental marketing has to offer. Earlier findings on MEC suggest how managers’ individual views on environmental preservation and the wider society have stimulated the firm’s adoption of environmental practice. Findings from MEO suggest that developers can be equally motivated by the commercial benefits that environmental practice has to offer.

During the interview, one of the managers recounted this as the ‘*chicken or egg*’ dilemma: one cannot be sure whether it is the environmental marketing or the environmental determination of top managers that is driving firms to build green. When asked which one they presumed to be the more fundamental reason, they replied,

...*chicken or egg*... it must be admitted that the leader [top manager] has a good vision and has good ethics... for that, credit is due to those that have the *heart* to initiate... but it also has to be admitted that today, green marketing itself has been accepted by society, especially with increased civilisation [advancement in technology and urbanisation]... cities that are becoming wealthier... [...] it cannot be denied that in Bangkok [...] the

market or consumers are becoming more concerned, are becoming stronger, therefore it cannot be exactly said that [green building] will not yield returns (ADV9-M).

The business rationale holds a strong position in proactively enabling developers to deliver green building. The validity of environmental conscience in driving green building was confirmed, but these were only shared by a few of the managers. Cultural norms and social contracts informed by the property industry and Bangkok's oligopoly maintains a dominant part of the discourse, and it is evident that any decision pursued by the firm is ultimately approved based on its economic viability.

This has caused some developers to find it difficult to fathom that a firm would consider incorporating environmental strategies for reasons other than economic returns. During the interviews, developers suggested that they were sceptical of environmental efforts that other firms put forward and contended that these decisions must be equally driven by an economic rationale:

There are some firms that pick up [green building] as the main concept – but even so it is not certain... do they pick up on this really because of [environmental] awareness? Or do they pick up on this because they hope to change their selling point? (ADV3-R).

...they cannot *not* consider these things, isn't it? It is impossible for them to not discuss these things, to not discuss how to return the incurred costs [of green buildings] [...] The first hint for them – how they are going to position their building in the market – this must come from some sort of initiation that made them “click”... whether this “click” follows a craze in the market or social trends... (ADV9-M).

If it is the private sector, I believe that they look at it through marketing. Even PTT [one of Thailand's leading SET-listed oil and gas company], I believe deep down they must have some marketing [incentive] hidden inside. [...] If you ask whether normal people can do this... this type of building, can ordinary private companies do this? Construction cost has to be looked at in square metres and compared pound-to-pound [with conventional buildings] (NON2-C).

The latter refers to PTT, one of Thailand's leading oil and gas company that is also publicly listed on the SET. Their office building, Energy Complex (**Figure 40**) is one of the most renowned green buildings in Bangkok. It is the first LEED Platinum-certified project in Thailand and the ASEAN



region. Certified by the USGBC in 2010, it also claims to be the ‘world’s first commercial multiple building campus outside the U.S.A.’ (EnCo, 2017).



*Figure 40 Energy Complex (EnCo) by PTT*

*Source: Gulbrandson (2016)*

## **8. Perception of Green Building Practice (PGBP)**

The final AoI explores managers’ PGBP. Interview findings show that at large, most of Bangkok’s listed developers support the concept of green building but render it unfeasible due to current economic and market factors. Up to 90% of the developers interviewed believe that it is the role of the government to incentivise the industry, while approximately two-thirds (64%) believed that there needs to be an increase in market demand. Less than half of the managers (36%) interviewed see it as a matter for the private sector to lead (**Appendix 20**).

- ***Barriers and economic feasibility***

First and foremost, technological barriers are no longer an issue for the developers. Contradictory to what the literature puts forward on the limitations posed by technological barriers (see **Chapter**

**One)**, the interview findings show that managers do not view developers as constrained by the lack of skills or technical know-how. Managers contend that the majority of developers in Bangkok are waiting for the right timing to adopt green building practice provided the market and government creates enough incentive for them to do so.

I am telling the truth by saying that people in the company have enough knowledge, reasonable knowledge about this [green building], adapting is not difficult. As said, if there's a signal [from the market] we're ready. Now, there are two sides – the developer and the supplier...those that manufacture the material – everyone is prepared. But we still haven't [made it happen] because we are just waiting for the market (ADV1-R).

The main barrier to green building that was identified by the developers was the lack of public demand for green buildings, which coupled with the cost premium in construction does not produce a promising prospect. Developers suggest that due to the commercial nature of their practice, any decision that goes against the firm's economic viability would be seen as irrational. A number of managers explained that if the roles were reversed, and green buildings became the most economical or profitable option, then there will be no reluctance from the industry to adopt the practice:

Green buildings have a higher cost than conventional buildings. If this proposition were to be reversed today – the construction cost for green buildings and conventional buildings are to be reversed – [and] green buildings are super economical, in any case, I would choose it because it would reflect in the feasibility study (NON2-C).

If there's something about energy-efficiency or green building practice that we can clearly explain to the customer that enables us to achieve a premium on our sales or to achieve a faster sell-through rate, then typically we would adopt it... It's a very rational decision on behalf of the developers (ADV11-M).

Hoffman and Henn (2008) in their paper on *Overcoming Social and Psychological Barriers to Green Building* referred to the 'mythical-fixed pie', a metaphor used to describe an individual's assumption that economic and environmental interests are always in conflict. For Bangkok, this pie may not be merely mythical; Certifiers contended that green buildings have cost them 10 to 15% more to construct when compared to a conventional design. Consequently, green buildings

are considered as a premium product to be sold at a higher price which in turn positions it in the niche or upper end of the market. As findings from MEO also confirms,

Green buildings have matters concerning building material among others...which may not make the cost appropriate. And when we [the company/developers] sell, suppose we have to sell at a higher price, it may be that some people still do not understand why. It may have to be sold to a group of people that really understand it...which poses higher risks [for the company/developers] (NON3-M).

...especially for residential [buildings] that are made to sell to customers, if the cost is very high... for customers that are not aware of these [environmental] matters, suddenly having to pay 10-15% higher than usual, they cannot accept it (ADV3-R).

As the construction of green buildings in Bangkok would also cost more to build, developers believe that any effort to build green would go unappreciated by the market and cause them to lose to their competitors.

Creating an environmentally low impact building [...] is actually the long-term economically more sound decision. But, you have to explain that to your clients and that's not always the easiest thing... which is why we have so many low-grade poorly thought-out buildings in Bangkok... because it is the same with every city around the world... if a developer can get away with it they do. Because this is not the industry that tends to attract the most ethical or long-term thinking people – particularly for residential where we come up with a nice brochure, we sell off the brochure without sharing any real information, we build it, and we walk away (ADV11-M).

A few managers amongst the Certifiers, however, suggested that incorporating green building design as a concept early on in a project can help make the practice more viable. Rarely are green buildings a result of ad-hoc decisions that take place midway through the development process; it is about incorporating green concepts into the design from the very beginning:

First off, what is their initial starting point? what is their concept? Concept, if it is about cost, then it will never be feasible. But if it is a concept about the society and the environment...achieving LEED certification... and there is an attempt to manage the cost, then it will gradually begin (CERT1-R).

In contrast to the Certifiers, managers from Non-certifiers have shown to be more fixated on the cost of development projects; often referring to the ‘numbers’ that are determined by the project’s feasibility study as part of their approach:

Before we decide on the project concept... suppose we have acquired a location, we have to begin from research...what are we going to turn the project into. Then... it comes down to numbers – for developers – numbers are important. We have to draw up a feasibility study to see “like this like this [if we do it like this] – is it okay?” [...] actually, the numbers have to be run parallel to the preliminary design to see if we will do it in this way...then run it through the feasibility study, then gradually see which one is okay and then draw up the project concept (NON3-M).

- ***Industry-specific viability***

In the interview findings, developers often refer to feasibility studies and how they are used to determine the viability of a project. While conducting a site analysis and feasibility study is considered a standard approach to the development process, the findings show that managers’ perception of feasibility for green buildings may vary according to industry sector (i.e. residential, commercial, and industrial). This is further reflected in the developers’ business model and target market. More than 70% of the managers interviewed contend that the feasibility of green buildings is dependent on the developers’ business strategy (e.g. short-term vs. long-term) and target clientele.

As green buildings cost more to build and would need to be marketed at a higher price, managers see them as the most appropriate for commercial and industrial sectors; those where developers’ approach consists of a long-term business model. Long-term business models encompass strategies for long term leases suited for owned and managed properties such as offices or industrial buildings. Developers that operate on this model would often develop the property to be rented out for commercial purposes; in some cases, up to a period of 30 years. Managers explained that due to the longer timeframe, the model is preferred for green building design as the developers – as the owner of the building – would have a longer period of time to recuperate their return on investment. They are able to accept a slower payback period and can even profit from energy-savings in the long-run which would help to absorb the additional costs from green building construction.

In my view...in terms of being a developer...I have to say yes. Because by developing a commercial building, one building would stay with us for at least 30-40 years. The use of advanced technology to help the building stay in the market competition is quite worthwhile. But for houses... their business is not the same. Once it is constructed, sold, then it's finished (CERT5-M).

...[environmental] measures will certainly work well for the industrial sector because they consume a lot of energy in their main operations... And the same for offices.... In Thailand now, most that do green building are offices, not residential...[...] Looking at it from the residential perspective [green building] is non-significant [...]...but for the industrial sector, it really is [significant] (ADV3-R).

Managers emphasise that the scale and ownership of commercial properties help to create tangible benefits from energy-savings that green buildings will have to offer. For instance, it is more viable to install larger building equipment required in certain green building schemes (e.g. chilled-water systems for central air-conditioning units, BAS units). Commercial and industrial developers also usually own and rent out the units themselves. This is where their ownership enables them to maintain and monitor building operations. Most importantly, any money gained from energy-savings would be substantial because of the scale of the property. 'Big savings' from energy bills is a lot more attractive in large-scale commercial and industrial properties:

For commercial buildings...I think that is where the big savings...big energy savings can come in. Because commercial buildings... they'll use a lot of energy for air-conditioning, you know what I mean? Especially hotels where you have to run 24 hours 365 days... hospital is the same thing. Shopping malls ...you know...7 days a week they are opened (ADV10-M).

Contrastingly managers contend that the timeframe of the project, together with its scale makes green building most unattractive for residential developers. In contrast to the long-term outlook of commercial projects, the residential sector operates on a short-term model where market competition is fierce. This can be strategized to mean the development of localised and affordable units, but can also mean pitching more sales abroad. In short-term models, developers usually aim to sell out before building construction commences through the aid of showrooms and prototype units. In the Thai industry, this model of development practice is referred to as 'ขายคาคาด' (*khai khaad*)

– a direct translation to mean ‘one-off sales’. The residential market is one where developers sell and transfer the property rights to the client immediately after purchase. The main objective for residential developers is thus to attain short-term returns through fast and frequent sales. Any long-term benefits of green building are less visible to developers. As a manager explains,

...in residential we construct it, we sell it, we finish. It’s not the same [as offices]...where there’s recurring income and [green building] becomes a magnet for drawing new tenants in. In terms of investment, [offices] may be more worthwhile because to certify LEED is not cheap (CERT5-M).

In cases where developers rent out single residential units, the lack of single-ownership is seen to pose complications for monitoring and maintenance of green building equipment. Residential properties mean developers no longer have control over the management of the project after the transfer of ownership. Moreover, because electricity in Thailand is also relatively cheap as a part is still subsidised by the Thai government, any energy-savings for a residential dwelling is seen as too minuscule to persuade homeowners to pay a premium for green buildings.

LEED is suitable for offices... for office buildings. Because it is “single-owner” [...] To build if for residential there are many users... so it may not be convenient, because it varies. But if it is an office...where there is one owner...then it is appropriate (NON1-R).

Developers interviewed also contend that the commercial market has a client-base that is more suitable for green buildings. Commercial properties developed by the listed developers are usually catered towards other businesses, high-profile clients, and even multinational corporations. These corporations are said to have enough capital to afford any cost premiums on green buildings. They are also seen as capable of strategically using green building certification for their company’s own environmental marketing. Managers explain that there is a large number of multinational corporations that for their own brand equity would explicitly opt for green offices. Thus, green buildings become the most powerful tool in targeting these groups of clients:

Actually, I do not see [green building] as a conflict... it depends more on the perspective that you see it... because delivering a LEED-certified [project] or green building has its own benefits. For instance, currently, for large international firms... their first criterion is that they select a green building. Some offices do select like that. Thus, being LEED-certified enables opportunities for renting to certain clients. (CERT5-M).

For commercial developments, being an energy-efficient building is important for corporate brand building to show what they represent...There is value. (CERT3-C)

Take for example [a LEED-certified project in Bangkok] [...] the positioning that they do reflect their product, and the product reflects those that use the product – in this case those that rent [the building]. I can't deny that they're cool: [Name of a multi-national corporation] is also here. Why here? [Company] is a large corporation, right? They're cool, right? They're all that. We assume that's what they are. When they search for an office where do they look? They have to find somewhere that emulates their image (ADV9-M).

On the other hand, the lack of public attention towards environmental buildings in Bangkok worsens PGBP, especially in the residential sector as 'consumer demands for residential does not extend to LEED' (ADV11-M). Developers interviewed describe how green building practice is least attractive for residential properties because being an environmental building is not part of the public's selection criteria for a new home.

When we talk about houses or condominiums or residential buildings... there are factors of ownership, there is purchase, therefore everyone considers cost. There are also emotional attachments with where to live. Therefore [people] will be more concerned with how "worthwhile" the product is as opposed to brand awareness or environmental awareness. The main idea is to find a shelter, a residence, that is safe... the last factor is whether or not it is a green building (CERT3-C).

Thus, lack of demand and feasibility for green residences by the public discourage residential developers in Bangkok from building green. During the interview, only one out of the seven residential developers believed that it would be effective for them to lead on green building practice. Managers are unable to justify the loss in market competition as they remain certain that the usual prospective homebuyers will be unwilling to pay for increased environmental performance.

These findings resonate with the overall industry landscape. Looking across the green building projects delivered by Bangkok's listed developers, it is evident that a large number of these are commercial properties. Most of the projects delivered by nine of the listed developers are commercial or industrial buildings of very grand scales. In fact, this trend resonates with the construction activity of green buildings on a global scale where most green building activities that

take place across various countries are of newly constructed commercial properties (Dodge Data & Analytics, 2018).

## **Discussion**

**Chapter Eight** showcased the empirical findings on the last four AoIs. The investigation sought to probe into facets of individual constructs (i.e. values, beliefs, characteristics) of top managers that may influence the uptake of green building practice. As outlined in **Chapter Three**, the theoretical framing underpinning this research envisions individual constructs to determine managers' perception of the external environmental factors; and through their enactment of reality, their decisions, and the firm's response.

In the former chapter, I discussed how psychological constructs within the developers' organisational culture and broader market institutions have influenced developers' response in the form of norms and social contracts. In this chapter, findings from MO, MEC, MEO, and PGBP probed into how decision-makers within the developer organisation were influenced by their own perception and the extent to which their beliefs shaped organisational behaviour.

Through conversations with managers, I suggest that there are largely three primary areas of managerial perception that influence developers' response to green building practice; these exist in the form of psychological and implied contracts between the managers, the firm, and its stakeholders.

- 1) **Perception of their role as a developer.** This represents a part of the psychological contract between the manager and the firm, and the implied contract between the manager and their stakeholders. Being a property developer, managers perceive and associate a certain set of duty to their responsibility as a private property developer. This may reflect their own position or the norms of the business. The decisions that they make for the firm would be determined by their disposition.



- 2) **Perception of their role and responsibility towards environmental preservation.** This represents the implied contract managers have with external stakeholders and the natural environment. Their individual commitment towards environmental practice is based on how they view their duty towards the wider community, the planet, and future generations. These values would subsequently be adjusted to align with how they view their role as a developer.
  
- 3) **Perception of environmental and/or green building practice.** These are managers' views on the benefits and shortcomings of environmental and green building practices. While not a contract in itself, these views inform managers' decision-making and influence how they negotiate for the aforementioned psychological and implied contracts. In practice, this influences the managers' outlook on the viability of green building projects and can be dependent on the managers' personal experience, trends in the industry or market, as well as the business model of the organisation.

Findings on MO portrayed managers' perception of what they envision is the objective of their role as private developers. For most, responses pertained to customer satisfaction, brand loyalty, and the delivery of quality products and services. These were discussed by managers in light of social responsibility (i.e. delivering what is 'best' for their consumers or prospective homeowners). But the analysis of these responses and their discourse also overlaps with that of conventional business practice where the safeguarding of customer needs and well-being are fundamental to brand equity, organisational legitimacy, and the security of market position. Currently, the trend in Thailand is said to be one for luxurious residential properties and that is what developers seek to deliver.

MEC is where key findings begin to emerge, distinguishing between the individual constructs inherited by some of the managers from the Certifiers in comparison to the Advocates and Non-certifiers. In these cases, there was a difference in managers' disposition of environmental commitment and how it interacts with private property development as a practice. Interview responses showed that managers engaged in green building practice equally because they were

invested in the environmental agenda beyond commercialisation purposes. There was a tie to levels of personal commitment and responsibility. These managers displayed more concern for external stakeholders that are beyond the immediate beneficiaries of the firm (i.e. doing more for the 'greater good' including for the planet). They were also more future-oriented and spoke about the long-term impact of the development process. Through these characteristics, they were content to undertake green building practice without formal incentivisation from the market or government, albeit positioning and readjusting these commitments to levels in line with business feasibility.

Managers from the Advocates and Non-certifiers on the other hand emphasised business prospects and returns on investment as their primary agenda. They expressed no barriers in their technical knowledge but contended that more demand and incentives by the market and/or government were needed to convince them to build green. They believed that their role and priority as developers was not the natural environment but to deliver what is in the best interest of their consumers and company stakeholders.

Findings on MEO resonates with that of PGBP where the managers interviewed all reverted back to analysing the benefits and shortcomings of environmental and green building practice in light of conventional business norms. Managers in favour of green building were able to navigate and realign environmental practice to the extent where it did not cost the business more than a conventional building; or if it did, they were able to perceive means for the recuperation of the returns. Thus, managers from LEED-certified organisations were able to find an agreeable compromise between their individual environmental commitment and benefits for the firm, enabling them to adopt green building practice.

PGBP also unveiled other constructs that relate to the nature of the developer organisation and how these may limit engagement in green buildings. This includes how the developers' business model (i.e. long-term versus short-term models) relates back to the way they perceive feasibility in green building practice. Long-term business models and large-scale projects – similar to those delivered in commercial and industrial properties – was where green building was seen as being most feasible,

as a result of greater energy/cost savings and seeing return on investment, albeit over a long period of time. Short-term models and targets for fast sell-through rates - the residential sector – was where green building was seen as the least feasible. Although the residential sector represents the largest segment of Bangkok’s property market, only one in seven of the residential developers interviewed could envision the residential sector leading with green building practice.

**It is at this point in the research where my understandings begin to fluctuate between the boundaries of influence posed by individual constructs and the more structural and normative issues posed on environmental practice.** The empirical findings on Bangkok’s largest developers show that there is an extent to which individual constructs of top managers (see e.g. MEC) and organisational constructs (e.g. CMP) can facilitate and act as drivers for the firm’s uptake of green building practice. However, unveiled through the same findings is that managers’ individual constructs and organisational culture are very much restricted by other social structures and market institutions beyond the immediate boundary of the firm. That is, the firm’s social contract with external institutions can be seen to ‘govern’ these internal psychological constructs.

Individual constructs and organisational culture exist but do not function independently of social contracts; psychological factors are constantly being aligned and renegotiated to fit what is construed as normative practice. Decisions that are made within the firm, from an individualistic perspective, can be seen as a renegotiation of the firm’s psychological contracts with the firm’s social contract (Rosseau, 1995). That is not to say that these psychological constructs are insignificant to developer behaviour. The case of Bangkok’s largest developers has demonstrated that firms with managerial and organisational values that are more committed towards the natural environment exert greater influence over the negotiation process between these values and the firm’s social obligations.

Weick (1969) states that the process of *enactment* involves the following two stages. The first, perception of individual members within the organisation. The second involves the retainment and reinforcement of some of these perceived values through social processes and interaction of

members (Andrews, 1995). I propose that some of the preconceptions in the first stage and the reinforcement process that takes place in the second stage happen concurrently with influence from the firm's external environment. In the case of managers, preconceptions of what property development is (as a practice) and their outlook on environmental responsibility are realigned with the firm's culture and external institutions to form decisions. This decision then dictates the organisation's behaviour.

To this end, managers' individual constructs can be seen as having an influence on the listed developers' uptake of green building practice; but these are also substantially restricted by the cultural norms and social contracts within the industry. I reflect on and explore managers' individual constructs further in the next chapter (**Chapter Nine**) under the themes of *responsibility*, *leadership*, and *experience* and later discuss them in relation to norms and institutions within our society that may need changing to effectively transition into practices that are more in favour of the natural environment.

# Chapter Nine

## Responsibility, Leadership, and Experience

**Chapters Six, Seven and Eight** presented the empirical findings from the research fieldwork. The three chapters showcased the general trend in Bangkok developers' response to green building practice and their psychological constructs. This chapter sets out to consolidate some of these findings and further explore them under the themes of *responsibility, leadership, and experience*.

The three themes emerge from what is perceived to be the most significant psychological constructs attributed from the findings. **Responsibility** draws specifically on the findings from MEC, MO, MEO, and CER. Under this theme, I postulate that developers' effort in green building reflects their perception of responsibility in property development. I further address the psychological constructs that influence these understandings and discuss these in light of norms and institutions that are established in the industry. Under this theme, I also posit that individual levels of responsibility are to be distinguished from corporate levels of responsibility as the latter has shown to be less relevant in determining green building practice for Bangkok developers.

**Leadership** closely relates to responsibility. Under this theme, I will discuss how certain characteristics of leaders can influence the uptake of green building and environmental practice. Bangkok has shown that the initiative to construct green buildings is led by the vision of key individuals with decision-making power within the developers' organisation. I connect these understandings back to existing literature on leadership and suggest that the behaviour of managers from Certifiers reflect transformational and ecocentric leadership qualities.

**Experience** is the final theme and is a synthesis of the findings from CMP, MO, and PGBP. I distinguish between the experience of managers and the experience of the firm; discussing how both can influence developers' uptake of green building practice. These, I would further argue relate to the managers' professional experience, training, the firm's history and operating structure which – under the influence of the capitalist culture – constrains sustainable practice.

The ending of this chapter recapitulates these ideas, reflecting more broadly on the premise of this research. The theoretical framework proposed in **Chapter Three** stipulates that aside from the organisation's external environment, it is the perception and values of decision-makers that dictate the firm's behaviour. The decision-maker forms decisions based on the psychological constructs retained within their enacted perception of reality, the norms, and the culture of the firm. In the case of Bangkok, decisions to engage in green building practice primarily stem from the developers' outlook on responsibility, the characteristics of managers that lead the firm, their professional experience, and past practices of the firm.

This postulation, however, is a narrative derived from an agency perspective. It is evident from the findings that there are broader sets of psychological constructs that constrain developer behaviour. Giddens (1984) referred to the aspects of social life being *institutionalised*; that recurring beliefs and behaviour are socially reproduced to persist in the form of commonly accepted practices. In the case of private developers, I contend that there are institutions established by the capitalist culture that needs revising for green building and sustainable practice to be more commonly considered. I reflect on these towards the end of the chapter and further reiterate my position in **Chapter Ten** where I address the implications and future pathways for sustainable property development.

## **RESPONSIBILITY**

In the earlier chapters of this thesis, I addressed the role of organisational leaders, their individual constructs, and their perception of the external environment as psychological influences behind the behaviour of organisations (see **Chapter Two**). Empirical findings from the fieldwork

corroborated some of these constructs, in particular, the influence of managers' individual constructs which drive developers' uptake of green building practice. I further posit in accordance with Weick's enactment theory that there are certain preconceptions that managers hold about their responsibility as a developer and their duty towards environmental preservation. That these are subsequently altered and reinforced by the norms and culture of conventional development practice, which in turn can delimit the environmental agenda.

To showcase this discussion more explicitly, there are several key findings that need to be considered. **First, that evidence from Bangkok's oligopoly shows that the environmental disposition of top managers in private property firms matter.** Due to the power dynamics in Thai culture, decisions on environmental practice within organisations follow a top-down hierarchical approach (see also **Chapter Four**). The overview of interview findings from the fieldwork confirm that top managers have a significant role in the firm's engagement with environmental practice (**Chapter Six**). Developers contend that green building practice has to be driven within this top-down directive; that the firm must have key individuals in authoritative positions who believed in and push forward the idea. Developer's perception of responsibility thus matters in this regard as it is the firm's leader and their outlook on responsibility that act as determinants for the firm's pursuit of environmental practice.

**Second, that within this disposition of responsibility it is important to consider *who* and *what* private developers are responsible for.** 'Responsibility' in this context addresses the developer – how they view their duty as a developer and their organisation's commitment to surrounding communities and the natural environment. This much is straightforward; the clarity needed is in the identification of the scope and boundaries for responsibility in private property development that can be blurred by the practice's own attributes as a commercial business. That is to say: is it a private developer's responsibility to contribute to the improvement of urban conditions? Or is it to carry out development as a business practice to generate profit and wealth for the company's shareholders?

**Third, these individual views of responsibility are not independent of the wider psychological constructs present in the form of norms within the developer's organisation and the property industry.** Developers' outlook on their duty and responsibility is a mere reflection of what has been retained in conventional practice. Individual views and beliefs are inevitably aligned or reinforced with those collectively retained as normative practice. Thus, Certifiers may have some of the 'greenest' managers in Bangkok's property industry, but these managers are also aware of how they would align their sustainability interest with the firm's business interest. It is evident from the interviews that top managers in Certifiers possess the knowledge to account for losses that are posed by environment practice and green building premiums. From these findings, I contend that one of the biggest challenges that the private sector faces in promoting sustainable properties lies within the conception of property development as a capital-oriented practice.

**Fourth, there is a discussion to be made about corporate levels of responsibility and how this influences uptake of sustainable practice in the property sector.** While the literature puts forward the role of corporate responsibility – particularly CSR – as an essential construct for developers to adopt sustainable practice, Bangkok's largest private developers show that this may not be applicable across all contexts. For developers in Bangkok, CSR does not foster sustainable building practice, nor is it seen as a business ideology. According to the developers, CSR is seen as a publicity tool that is used by the firm to demonstrate social and environmental responsibility. Furthermore, the influence of corporate responsibility on green building practice is seen as insignificant compared to individual levels of responsibility exhibited by top managers. The majority of the developers interviewed do not view green building practice as part of the firm's CSR and for those that do, green building practice is not necessarily implemented on the basis of responsible practice.

The theme of responsibility thus becomes prominent as it is one of the few psychological constructs that distinguishes Bangkok's green building developers from the industry. The notion of *responsibility* in sustainable practice has similarly been referred to in the wider literature. For example, Turcu (2018b) cites responsibility as an important construct in cases where sustainable



practice is not legally binding and ‘still relies de facto on moral commitments and political resolve’ (p.385).

What this thesis contends is that individual responsibility and corporate responsibility are distinct constructs that may not reflect each other interchangeably; that these constructs may hold different bearings on the adoption of sustainable practice. Across the next two sections, I further discuss the nuances of responsibility in light of private developers, green building, and sustainable practice.

### **Individual responsibility**

Findings from Bangkok have shown that developer behaviour differs according to their outlook of their duty and responsibility as private property developers. This is reflected in the mindset of each individual and influences their decision-making when considering environmental or sustainable modes of practice. The biggest question posed by this notion of ‘responsibility’ lies in the juxtaposition of the developers’ responsibility for sustainable practice and the developers’ responsibility for the survival of their business: is a private developer’s duty towards the city (its environment and its communities) or towards their business, their company, and their shareholders?

To further elaborate on the reasons why responsibility is a valuable construct helping to drive sustainable practice in the built environment, I refer back to the discussion laid out in **Chapter One** regarding philosophical worldviews that vary between actors; these views shape different approaches to sustainability. Sustainable development, sustainability, and sustainable property development are characterised as ‘contested concepts’ (see e.g. Phillis and Andriantiatsaholiniaina, 2001; Mawhinney, 2002; Connelly, 2007); they become fluid and variable concepts open to different interpretations. Wilkinson and Sayce (2015) further explains that, in the case of property developers, the interpretation becomes challenging as there is difficulty in appropriating relative weights to the environmental, social, and economic spheres. Property development is a practice that ‘all would recognise has long-term implications’, but one where decisions are made ‘with imperfect knowledge and often with a pressing economic priority’ (p.2). The interpretation of

sustainable development becomes challenging, often making it easier for many to say, 'that does not apply to me or my circumstance' as issues become 'too hard to process and understand' (ibid, p.2).

Looking across at how responsibility has been addressed and documented in property literature exemplifies this particular point. Cadman (2000) coined the term 'responsibility dumping' to depict responsibility in sustainable property development as 'The Vicious Circle of Blame', where responsibility is often 'dumped' to a secondary party. The closed cycle depicts building occupiers, constructors, developers, and investors blaming each other in a never-ending loop. Occupiers blame the constructors for the lack of green buildings, who blame the developers for not requesting them, who blame the investors for not investing in them, who then comes back to blame the occupiers for not demanding them in the first instance.

The case of green building practice in Bangkok does not differ much from this circle of blame. Rather than a vicious cycle, the majority of Bangkok's largest developers can be seen to 'dump' responsibility of initiating green building construction to the market or government. Findings from the SET-listed firms included in this research showed that most developers do not see driving sustainable changes in the market as part of their duty; developers contended that it is not their role to 'lead' the market but merely to 'respond' to it (ADV1-R). Of the 22 managers that shared their views on this subject, less than half believed that developers should be equally responsible for initiating green building practice, 90% believed that the government should be responsible for driving the practice through regulations and subsidies, while 65% perceived that the market should make it attractive for developers.

I postulate that it is fundamental to reflect on individual responsibility in developer behaviour in two parts. First, 'responsibility' in the way that developers view themselves and their perceived responsibility towards society. Certifiers are more inclined to view their duty as a developer in relation to urbanisation. Managers from Certifiers emphasised their commitment to improve urban conditions as they view the role of developers akin to '*city-builders*' and hence '*should make the*

*city most liveable as it can be*. Their motivation and rationale behind green building practice were expressed as personal commitments and responsibility for the greater good (i.e. the city, the country, surrounding communities, and the natural environment):

... everyone should participate and work together.... we as *developers* look at development: “developer” means “the one that creates *development* [state of growth and advancement]”. But in the development process we destroy a lot... impact a lot...why then are we defined [as *developers*]? [...]

[we] would like all business operators to feel and think about in the same way: that is “hey, we should be responsible for the society and the environment”, by not having to attach to a particular standard or certification scheme, but to gradually begin. Let everyone gradually begin...wherever they can manage to start...where the cost impact is low, it should be done, gradually. It will make our country better (CERT1-R).

Actually, I would like everyone to do it if you ask me. There is talk among us in the real estate industry... I’ve spoken to – not competition – but other developers that we should help each other. We are *city-builders*, we should help each other explore ways to make the city most liveable as it can be. It’s up to us (CERT5-M).

Conversely, the majority of the developers interviewed perceived their duty akin to that of an entrepreneur; viewing financial gain as their central responsibility. These views were exhibited mainly by Advocates and Non-certifiers where their primary responsibility was with the creation of value for the firm, company shareholders, and their clientele. However, environmental responsibilities were not completely disregarded for this group of developers; it was a matter of prioritisation. Environmental responsibility was taken into account but realigned to the conventional norms of business practice.

When we conduct business there has to be both sides to it...isn’t that right? We are not just...how to say it... a charity... that considers conscience alone. (ADV8-M).

It’s all about *rational* decision making... We are not property developers for the purpose of being nice. “We don’t care about the environment particularly” – this is the mindset of a developer. We care about the quality of our building that will enable us to sell the fastest rate at the highest possible price, and to optimise the design to fit within government regulations...and if the regulations and the consumer are smart enough to encourage us to

adopt green building practice, then we do of course. But if not, then we don't (ADV11-M).

Most managers also lacked trust in green building practice as they did not feel that green building schemes were always the most effective solution for developers to contribute environmentally. For example, a more adequate solution proposed by one of the managers was for developers to offset their environmental impact via reforestation:

I've personally proposed in the past...why don't we calculate it reversely? We talk about the environment, about green space, we must accept that in reality this can [only] be done in certain locations. Through regulation we can say what type of building, how many square metres...[and] we can reverse this to say that for that property, the owner must go plant that many *Rai*<sup>22</sup> of forest. [...]

... if we say "no, for a building like this, [...] causing this sort of carbon [emission], you have to replace it with [...] this many Rai – 10 Rai, 50 Rai, 100 Rai per square metre [of forest] – and everyone has to go to plant trees with the central authority [and] the government. If we are able to implement this, this will be truly what it means to be green. (ADV2-R).

Second, there is the need to recognise that individual perception and developers' understanding of their responsibility is equally shaped and influenced by the norms retained within the organisation and the industry they operate under. Real estate literature refers to the bias in developer behaviour as *herding* (or herd behaviour) (see e.g. Byrne et al., 2013; Salzman and Zwinkels, 2013; Ro et al., 2018). Herding is the developers' tendency to unduly mimic behaviour of other developers in the market to avoid risks and simplify the complexity of the market (Ro et al., 2018, p.5). It would be challenging for private developers to 'break free' of their normative and social contracts as their obligations towards society is institutionalised in the system around them. In the Thai context, it is even more challenging because of the collectivist culture (Pimpa, 2012; see also **Chapter Four**).

However, some of the developers interviewed in this research have demonstrated their ability to 'break free' from common conceptions. These were mostly managers from Certifiers that

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<sup>22</sup> Thai unit of measurement for land area. One *rai* is equivalent to 1,600 sq.m.

expressed notions of developer responsibility different to the rest of the group. These managers believed that the private sector should be driving green building practice; that developers should go beyond regulatory and legal requirements to demonstrate environmental commitment. I further argue from a psychological point of view that these behaviours coincide with what the literature would term as higher levels of *self-efficacy* and *locus of control* – i.e. the behavioural tendency to ‘take matters into their own hands’. For instance, how this manager stressed the importance of changing themselves in order to create new standards for the industry:

The most important is yourself. Before changing others, we must change ourselves and do our very best first...because at the end once we do our best, I believe we will create new standards (CERT6-M).

Self-efficacy is defined as one’s perceived capabilities for performing actions and achieving designated goals, and has been shown to influence individuals’ motivation, achievement, and self-regulation (see Schunk and Pajares, 2009). Internal locus of control denotes the extent to which individuals believe they are in control of the events that are affecting them (Rotter, 1966). Individuals with a strong internal locus of control believe that their actions can bring about change (Kollmuss & Agyeman, 2002). Our locus of control is said to shape our feelings of responsibilities and what we prioritise. Both self-efficacy and internal locus of control have been regarded as determinants for pro-environmental behaviour (see e.g. Hines et al., 1987; Kollmuss and Agyeman, 2002).

In contrast, aspects of self-motivation were less exhibited amongst managers from the Advocates and Non-certifiers. The majority of managers from these organisations were much more passive towards initiating environmental practice. They were comfortable with the conventional modes of practice and – similar to what the literature on herding would suggest – were less willing to initiate change. A manager even compared the behaviour of developers in Bangkok to a herd of sheep, where most are docile until there is a ‘bellwether’ who demonstrates how a new way of practice would be more worthwhile:

Developers, we are like sheep, you know, we wonder around all roughly in the same direction and there’s usually one lead sheep and everybody is following them to some

degree. [...] Once it comes [green building trend], it will come incredibly quickly, because the first one to do it successfully will just...yeah...will just drive the others. Because as I said, we are like sheep (ADV11-M).

As exhibited in the Certifiers, managers in support of green building practice perceived their engagement with the natural environment differently; they were more driven to take action and *believed* that their actions can bring about change. These managers felt less inclined to follow normative standards of practice and were willing to utilise green building practice as a means to showcase their commitment.

The findings, however, also suggested that there are powerful influences in the norms and institutions that surround individual behaviour. The reality enacted by an individual is constantly realigned and reinforced by their surrounding norms (Weick, 1969). In the case of private developers and sustainable practice, the challenge is posed by the conflicting positions taken on developer responsibility – i.e. the boundaries and extent to which a developer's responsibility is more akin to an agent in the urbanisation process versus a business venture capitalist. This brings the discussion back to the wider debate on sustainability and private property development. In **Chapter One** I outlined the challenges that the private sector faces in pursuing sustainability, contending that the capitalist nature of the economy (one that promotes consumerism and the generation of profit) will create conflicting pathways for sustainable development (one that warrants a culture of reduced resource consumption and wealth distribution). The examination of private developers and their duty as agents in sustainable urbanisation is problematic in this regard and is precisely what the research findings show. For the majority of developers, it is nothing but rational to prioritise the pursuit of profit and shareholder wealth. Environmental considerations are factored in *if and when* they align with the business goals.

### **Corporate responsibility**

As outlined from the outset of this chapter, it is necessary to distinguish individual levels of responsibility from corporate levels of responsibility as these two psychological constructs are not

interchangeable. Individual responsibility represents the disposition of individuals working in property developer firms, the perception of their duty as a developer and their duty towards the planet. Corporate levels of responsibility address the firm's disposition on environmentally responsible practice. These are upheld within the firm's organisational culture and function as normative contracts that set certain standards of practice for individuals working within the firm. Furthermore, corporate responsibility commitments that developers denote in their writing may not necessarily reflect or transpire in individual levels of responsibility.

The findings from Bangkok's largest property developers suggested that the developers' concern for corporate environmental responsibility was more about public relations than an embedded mode of business practice. SET-listed developers included in this study employed CSR as a tool to promote and construct a particular image for the firm. Contradictory to what the literature suggests, the role of CSR in facilitating sustainable property development in Bangkok is minuscule (cf. Wilkinson and Reed, 2008; Wilkinson and Sayce, 2015). Wilkinson and Reed (2008) suggests that CSR can 'affect property development in the direct employment of staff...how they operate and occupy their property or in the way the developer develops property...' by developing sustainably (p.317). This was not evident in Bangkok; developers contended that CSR in the Thai context is viewed as another marketing strategy to safeguard the image of the organisation.

...CSR...it's because people are made to do it, and they do whatever is the highest-profile that gets them the biggest bang for buck. Environmental does not figure on that unless you are in a *very dirty* dirty business, which is hydrocarbons or mining in which case, then environment matters. But energy-efficient buildings...it's just not sexy enough (ADV11-M).

For the developers, CSR was heavily associated with the inauguration of philanthropic activities that gave them an opportunity to showcase how the firm was 'giving back' to the surrounding communities. Developers claimed that CSR policies were written to 'appeal to consumers'; that companies conducted CSR with hopes that it 'will return results to the company as fast as possible'. Thus, most of the CSR activities organised by the developers addressed social causes as these were deemed to be most appealing to the general public. As stated,

...I think developers' CSR is done to appeal to society...to communicate with customers. That's why they look for strategies that have the most impact on their business. Admittedly this is about if - for residential - the environment is not a factor that many people are heavily aware of...so, if they choose to focus then of course they will focus on...It must be admitted that CSR in the end, no matter what, the company or any organisation would hope that it will shed a positive light on the company, therefore they must choose to do it through a channel that will return results to the company as fast as possible (ADV3-R).

Environmental issues, including that of environmental buildings, were viewed as 'distant' in comparison to the social issues. The developers contended that Thai culture does not view an activity as CSR unless a 'sacrifice' is made. For this reason, environmental and energy conservation efforts in sustainable building practice were not considered as CSR. The benefits from these activities are too indirect and intangible, and do not evoke an adequate response from the market.

It's a lot more difficult to get people excited about saved number of plastic bags, or we reduced our paper consumption by 5%, or we reduced our power bill by 10,000 baht. People never look at it as we helped the people in *Phichit* or *Lampang* have slightly less lignite burning in their environment. Instead, they look at it as "well, that's not CSR because you saved *yourself* money – *you're* the beneficiary". CSR is seen as what can we throw money at, like down a hole to make the people at the bottom of the hole feel a little bit better. [...]...people don't really look at the ability to be more energy-efficient and to conserve the environment as something that is...“CSR”, unless you're making a sacrifice. (ADV11-M).

One developer even posited that efforts to construct energy-efficient buildings may even be construed as the developer trying to gain benefits for their company:

CSR initiatives were more like, let's teach poor children, let's give them books, let's go and make a donation to the temple, let's go and...plant some trees in the forest and reforest an area – these are all noble endeavours but they are not as mundane as energy consumption, and therefore people tend not to do the second one [energy consumption]. As a property developer you would expect much more strongly that you would focus on the second one [energy consumption], but yet it's not really seen as CSR. It's more seen as... a way to sell, or a way to...save a little bit of money on the company. [...]

So, if you spend money and time to go and plant trees, that's seen as CSR. Yet if you go around and adjust all your air-conditioning in all your buildings so that its more fuel-



efficient or you install co-generation in an office building that regenerates power into hot water and so on...I think that's seen as "making a buck" (ADV11-M).

CSR is understood as a form of self-regulation that businesses employ to demonstrate accountability for their business impact (see e.g. Lessen et al., 2008; Fontaine, 2013; Steurer, 2013). However, CSR in the Thai property industry was perceived as a public relations strategy rather than a business ideology. Adopting CSR enabled SET-listed companies to be selected for the annual 'Thailand Sustainability Investment' programme, demonstrate good corporate citizenship, and strengthen the organisation's brand and legitimacy. The type of CSR activity undertaken by Bangkok developers are classified as 'peripheral' CSR (Aguinis and Glavas, 2013); These are 'activities that are not integrated into an organization's strategy, routines, and operations' (p.315). The alternative would be 'embedded' CSR, defined as activities that '[involve] an organization's core competencies and integrates [with] the firm's strategy, routines, and operations' (p.314). Embedded CSR would coincide more closely with what the literature contends as CSR in property development.

Gained from this understanding of responsibility are some implications to be reflected on in light of sustainable property development. First, that there is the need to revisit frameworks for CSR and corporate responsibility in certain contexts. While peripheral CSR activities represent great efforts from the developers to contribute back to the society, they raise concern for future sustainable development. Second, corporate responsibility in sustainable practice needs to be viewed in association with the wider norms and institutions of conventional business practice. Friedman-style capitalism, for instance, would argue that businesses are already fulfilling their 'social responsibility' by generating profit for their shareholders; that the use of corporate resources for causes other than profit maximisation could ultimately be construed as 'theft' (Friedman, 1962; see also in Carroll, 1999; Carroll and Shabana, 2010).

## LEADERSHIP

In **Chapter Two**, I referred to Hambrick and Mason's (1984) work on organisational behaviour that conceptualised the influence of top managers' cognitive values as a 'filter' that distorts perceptions of the external environment. What can be understood from this framework is that managers' cognitive values are skewed to cause selective interpretation of the external environment that subsequently gives rise to decisions. In connecting this understanding to the wider literature on leadership and enactment, it can be understood that top managers bring forward certain preconceived values that influence their perception and transpires into the culture of the firm.

What I will put forward in the discussion follows on from that of individual responsibility: that there are certain psychological attributes associated with managers that selectively engage with green building practice that are reflected in their leadership qualities. **First, that managers who are more open and lenient towards green building practice have specific leadership characteristics that are in line with what the literature refers to as *transformational and ecocentric*.** I introduce ecocentrism as another significant construct as it overlaps with transformational leadership qualities and can be relayed back to principles from the strong sustainability paradigm (see **Chapter One**). Transformational and ecocentric leadership qualities were exhibited by managers from the Certifiers during the research interviews.

**Second, and more importantly, I posit that it is these individual constructs of leadership qualities that have enabled managers to 'break free' from industry's normative practices.**

This view echoes Waldman's position on the importance of value-driven CSR and how personal values can help achieve new visions that challenge the status quo (Waldman and Siegel, 2008). I would further add that this understanding is applicable to corporate responsibility more generally; that personal motivations have helped managers to perceive the world differently and enabled a sentiment that is unfearful of going against existing norms. I cannot, however, solely separate the Certifiers' pursuit of green building from economic justifications. That is to say that this same group of managers are equally capable of justifying their decisions to construct green buildings as both an altruistic and strategic decision.

There is extensive literature exploring the relationship between sustainable practice, CSR, and leadership style (see e.g. Angus-Leppan et al., 2010; Metcalf and Benn, 2012). Authentic leadership, ethical leadership, and transformational leadership have all been linked to driving corporate sustainability (Metcalf and Benn, 2012), but qualities of leadership that effectively drive sustainability still remain inconclusive. Sustainability is a complex matter which requires leaders of ‘extraordinary’ qualities (Metcalf and Benn, 2012, p.369), ‘who can read and predict through complexity’, and ‘have the emotional intelligence to adaptively engage with... complex problem solving’ (ibid). I propose that some of these qualities can be further associated to the theme of responsibility outlined in the previous section where managers with a stronger sense of individual responsibility were shown to be more inclined to adopt green building practice – especially those relating to righteousness, duty, and concern for others.

### **Transformational leadership**

In organisational and management literature, transformational leadership is described as one that leads through vision and inspiration for change. Transformational leaders are charismatic and motivational (Bass and Steidlmeier, 1999); they inspire others with their vision and develop ‘fresh approaches to long-standing problems’ (Egri and Herman, 2000, p.575).

In the context of sustainable practice, it is suggested that transformational leadership guides fundamental transformations of mission, structure, and political, cultural, and technical systems required for achieving environmental sustainability (ibid). Egri and Herman (2000) contend that having a transformational leader is necessary for ecological sustainability to be achieved at the organisational and societal levels, as they inspire others through their mission, demonstrating confidence in themselves and their pursuit. Transformational leaders actively engaged in environmental practice are described as ‘self-transcendent’, ‘ecocentric’, and ‘open to change’ (ibid). Qualities of transformational leadership have also been linked to ethical, moral, and virtuous behaviour of leaders as individuals (Bass and Steidlmeier, 1999).

Transformational leadership qualities described above were present in managers from Certifier organisations, and were made clear in their visions to transform society and urban conditions. For these managers, sustainable building practice was not only seen as a matter of cost-benefit but discussed in part of ‘conscience’ and ‘responsibility’. Managers spoke about the means to ‘*make the country better*’, ways to ‘*make the city most liveable*’, and contended that environmental practice should be incorporated in developers’ decision making to help improve society:

...you have a duty to be responsible towards the society. Therefore, when you choose a project, you have to choose *all*; you have to choose well... Every project destroys the environment – but will this be more? Or less? That’s conscience. (CERT6-M)

During the interviews, managers from Certifiers created a vision for what they believed the future of the city should look like, and described this through powerful feelings that evoked an emotional level of commitment. Egri and Herman (2000) state that transformational leaders seek to inspire their followers through ‘symbolic’ cues and are characterised by their nature to appeal to their followers from an emotional stance to inspire change through desires and objectives. Managers from Certifiers all conversed through these traits, demonstrating that their objective as a developer is more than securing returns for the organisation, and that it should be an effort made in part by everyone, no matter how minuscule this might be.

There is first one important issue that [we] would like all business operators to feel and think about in the same way: that is “hey, we should be responsible for the society and the environment”, by not having to attach to a particular standard or certification scheme, but to gradually begin. Let everyone gradually begin...wherever they can manage to start... It will make our country better (CERT1-R).

Actually, I would like everyone to do it if you ask me. There is talk among us in the real estate industry... I’ve spoken to – not competition – but other developers that we should help each other. We are *city-builders*, we should help each other explore ways to make the city most liveable as it can be. It’s up to us (CERT5-M).

Some managers even used rhetorical questions in their dialogue to emphasise and evoke an emotional sense of value associated with the discourse:

...you have to ask: [as a developer] ‘do you feel a sense of ownership?’ Before anything, ...you have to ask yourself would you buy this project... you have to first see if *you-would-buy-it*. You have to ask: what does this project give you? what values do you get in return? You cannot look at the goods, “oh, I get a fridge, a TV, this and that...”. What about other things? you have to first ask yourself, do you obtain any other value from it...in terms of conscience...do you have this?

...which one would you choose? One, okay, it reduces your electricity bills. Two, what else do you reduce – natural and environmental destruction. This is what you will receive...its more of a “*sentimental effect*” ...like you are responsible (CERT6-M)

These arguments for the selection and development of a property contrastingly differ to sensitivities associated with managers from the Advocates and Non-certifiers. Normative practice in property development is not about ‘sentimental’ values associated with projects, it is predominantly about capital and commercial gains. For the Certifiers, the ‘return’ they receive in developing environmental projects is greater than its economic value.

Perspectives of responsibility, environmental conscience, and altruistic behaviour formed the basis for Certifiers that decided to engage in environmentally sustainable buildings. Managers showed virtuous behaviour through their altruism that attributed to visions for a better future and advocated how sustainable practice should be incorporated as the new norm to improve society. On altruism, psychologists hypothesise that those who have satisfied their personal needs are more likely to act environmentally as they have the time, money and energy to care about the wider social and environmental issues (Kollmuss and Agyeman, 2002). This underscores Maslow’s theory on the Hierarchy of Needs (1943) where altruism is seen only possible once all lower categories of needs have been satisfied. Maslow et al.(1998) further posited that the same hierarchy exists in managers where ‘enlightened management’ is seen as the equivalent of ‘self-actualisation’.

Several of the SET-listed developers interviewed used a similar rationale to explain why Bangkok’s public lacked environmentalism and why the industry exhibited more prosocial behaviour. The Advocates and Non-certifiers contended that in Thailand, there are certain basic

needs that must be prioritised before environmental concerns. That the context in Bangkok and other developing regions is one that people are ‘still struggling to work to feed their mouth and stomach’ (a Thai saying). To show environmental consideration is seen as a step beyond that which most are not ready to accept. There was even one manager that explicitly used Maslow’s hierarchy to describe the psychological barrier that Bangkok’s public is seen to face, contending how people in Bangkok have ‘yet to transition beyond the lower levels of the pyramid’ (ADV4-R).

Whether or not environmental behaviour is more likely to exist in affluent contexts when individuals are able to ascend towards states of altruism remains a contested debate in the literature. For instance, Kollmuss and Agyeman (2002) referred to a study by Diekmann and Franzen (1999) that found how poorer countries ranked environmental issues as their least ‘pressing problems’ but still regarded the ‘severity’ of the issue as extremely high. In another article, Asheim (1994) argues how ‘altruism alone does not – even in the context of an economically efficient market economy – ensure sustainability’. There are even deeper philosophical debates that take the discussion to the foundation of the concept, raising questions on whether *true* altruism even exists (see Batson and Powell, 2003; Batson, 2014). Despite these contested views, there are studies outside of property research that recognise the significant role that altruism has on delivering sustainable development and pro-environmental change (e.g. Stern et al., 1999; Stern, 2000; Schöpke and Rauschmayer, 2014); some even address altruistic changes in individuals as well as the institutions that surround that individual (Romeiro, 2000).

### **Ecocentric leadership**

‘Ecocentrism’ is a nature-centred philosophical worldview with a system of values that places intrinsic value on all living organisms and the natural environment. The term was first coined in the mid ‘90s by Aldo Leopold whom many consider to be the founder and father of land ethics. In his time, Leopold advocated wildlife conservation and environmental management where his works have had a great influence on modern environmental ethics. Today, ecocentric paradigms have been used by numerous scholars to explain individual behaviour and decisions to act pro-environmentally including those in the field of property development and organisational studies.

In organisational literature, ecocentrism has been carried forward and discussed under the terms *ecocentric management* or *ecocentric leadership* (e.g. Shrivastava, 1994). It is used to explain decision-making processes that incorporate ecological sustainability as a primary element in the development of organisational missions and goals; identification of problems; and the related courses of action (Egri and Herman,2000). Some see it as a part of environmental leadership, defined as ‘the ability of an individual or group to guide positive change toward a vision of environmentally better future’ (ibid, p.572); while others may even contend that it is a necessary construct for organisations to practice environmentally (see Shiravastava, 1994).

What I put forward in this discussion is that – similarly to transformational leadership – managers in Bangkok’s LEED-certified organisations tend to be those that display more ecocentric characteristics in their decisions and worldview. This can be argued through their perspectives on the environment and their commitment to incorporate environmental practices in the development process – that when compared to the conventional developer have rather exceptional qualities. Pertaining to these constructs are also notions of responsibility and altruism that are shown to guide the managers’ environmental orientation. However, that is not to say that green building managers *are* inherently ecocentric by philosophical definition - this would imply that they are unsupportive of economic growth. I merely suggest that managers from Bangkok’s Certifier organisations possess qualities of ecocentric leadership and are more inclined towards ideas that resemble beliefs from the ecocentric paradigm.

References from the ecocentric paradigm may serve to explain these views further. In **Chapter One** I outlined the contested nature of ‘sustainability’ as a term and the diverging views of strong and weak sustainability under the capitalist framework. Wilkinson (2013) exemplifies this understanding utilising five different standpoints across two sustainability paradigms (**Table 6**). These positions generate varying responses to capitalism, economic growth, energy, and resource consumption; with capitalist views closely coupled with economic growth, anthropocentrism, and weak sustainability.

	Ecocentric			Anthropocentric	
	Transpersonal ecology	Deep ecology	Moderate ecology	Accommodating environmentalism	Cornucopian environmentalism
	Very strong sustainability		Strong sustainability	Weak sustainability	Very weak sustainability
Economic views	Capitalism is not sustainable. Rejects consumerism.			Capitalism is sustainable. Consumerism is acceptable.	Capitalism is sustainable. Promotes consumerism. Green consumerism is accepted.
Economic growth		Heavily regulated economy	Zero economic growth	Managed growth	Maximise growth
Energy	Preservation	Preservation	Conservation	Conservation	Conserve and increase consumption
Resource consumption	Silent	Extreme preservation	Resource preservation	Resource conservation	Resource exploitation

**Table 6** Ecocentric and anthropocentric sustainability paradigms

Source: Adapted from Wilkinson (2013)

Wilkinson and Sayce (2015) further note that the dominant worldview is still anthropocentric. Most property developers can be seen to operate under the weak sustainability paradigm where economic drivers remain paramount. Economic performance of properties (i.e. increased rental or capital value) is still used as the main argument to persuade property owners and investors to adopt sustainability. This represents much of the perspective shared by the managers interviewed and how Bangkok’s largest private developers operate. Developers recognise the importance of environmental practice and are keen to adopt the practice; they are also equipped with the technical knowledge and skillset to do so. However, the main barrier concerns the economic feasibility of green building projects.

Looking at this on a psychological level and flipping the problem inside-out paints a picture similar to the *nature vs. nurture* debate. The commercial nature of private developers hinders their ability to fully commit to environmental practices. As much as individual perceptions belong to the individual, it is shaped by the behaviour of others and more importantly, surrounding practices and institutions. For instance, Hoffman and Henn (2008) address regulative, normative, and cognitive



institutions as potential barriers to green building. Regulative being legal regulations, normative (or social) institutions being ‘business rules of thumb, standard operating procedures, and accepted economic and business indicators’, and cognitive (or cultural) as ‘common perceptions of behaviour that are taken for granted and remain unquestioned’ (pp.406-407).

In the context of private property developers, there is an assumption that the practice is economically oriented. Discourse in real estate has – to a great extent – been about capturing economic value and profit maximisation. These claims very much reflect the philosophy and psychology of Bangkok’s largest developers, where the majority were still heavily motivated by capital gains and operate for profit. As much as it was the managers and the firm that shared this belief, it was as well their company shareholders, members of the public, and the government that expected the same. When environmental practice does not supplement commercial objectives, it becomes a less viable option as developers would not fulfil the *responsibility* that they owe to their stakeholders.

The argument that private developers have against environmental practice resonate with that of Friedman’s (1970) view on capitalism and the responsibility of the firm, where he contended that the only social responsibility of businesses is to delegate resources for the engagement in activities designed to increase the firm’s profit. These contradictions between notions of ecocentrism and responsibility under the landscape of capitalism may be what Wilkinson and Sayce (2015) points out as the complexities that inhibit sustainable practice in the development process. The question becomes: to what extent should private developers sacrifice profit for environmental gains, and would it be unconscientious not to? At what point of exploiting the natural environment would that be considered ‘bad’ corporate citizenship? These are difficult questions to answer, and it is anticipated that responses to these questions would vary across ecological-political and philosophical worldviews. Lambin (2009) on *Capitalism and Sustainable Development* raised a similar question addressing that the challenge to the firm is formidable: ‘how to conciliate the profitability imperative with the necessity to reduce waste, pollution and carbon emissions?’ (p.3)

This discussion can be brought forward and positioned into wider debates in the literature on capitalism and its delimitation of the sustainability agenda. Gough (2017) describes capitalism as a global system in our current political economy ‘driving the relationship between economy, climate change, and human needs’ (p.6). Capitalism is about the ‘production of commodities for profit’, and a system where private ownership controls the means of production and capital. It is within these two frameworks that Singer (2010) identified where the fallacies of sustainable development within a capitalist system were: the ‘productivist ethic’ alongside the ‘commodification of nature and continued promotion of expanding consumption’ were seen as the essential features of capitalism that contradict long-term sustainable development (see also Castro, 2004). In terms of environmental sustainability, ‘the cash nexus [becomes] the sole connection between human beings and nature’ (Foster, 1994 in Singer, 2010, p.134).

From a psychological perspective, I would argue that property development and green building under capitalism is limited by cognitive constraints and normative institutions posed by the industry. The norms of conventional business practice restrict the opportunity for firms to adopt sustainable practices and reduce sustainable discourse to solely economic terms. Similar to how regulating a private firm’s CSR would be seen as ‘anathema to the enterprise culture’ (Green, 2009, pp.48-49), the current state of affairs in the property industry suggests that constructing green buildings at the expense of the firm’s commercial viability is nothing less than unfathomable. Developers are *conditioned* by the market and the public to operate and perceive events in a particular way. In this case, their orientation toward profit is merely instinctive or even arguably, necessary for their survival in the industry.

## **EXPERIENCE**

The third and last section to the discussion reflects on the findings that can be grouped together under the broader theme of *experience*. The findings from Bangkok show that developers’ decisions to engage in green building practice are influenced by former experiences. This can be further distinguished as *managerial experience* (the experience of managers in developer firms,

their backgrounds, their experience in practice, and the way that they were trained) and *corporate experience* (the experience of the firm, the history, past, and current practice of the organisation).

The theme of experience can be connected back to the works on corporate environmentalism and the wider literature on organisational learning. Literature on corporate environmentalism denotes that top managers are a significant influence on the firm's environmental practice (see Banerjee et al., 2003). Explicit examples are further noted by Hoffman and Bazerman (2005) who contends that a manager's own training and educational background can alter their philosophy in practice. Moreover, Walls and Hoffman (2013) discusses the connection between managers' environmental experience and corporate environmental activity. Literature on organisational learning synthesises these understandings by recognising that the influence of organisational members and their experiences influence organisational behaviour. It is through the collective behaviour of individual members within the organisation that knowledge is created, transferred, and retained.

What I posit on the findings on experience is twofold. **First, that developers' experiences (be it managerial or corporate) influence their decision-making.** Based on the understanding of heuristics, experiences are associated with perception and can lead to cognitive biases (Dietrich, 2010). Past experiences influence future decision-making, although not all decisions made on past experiences are the best call of judgement (ibid). Human thought processes are subject to cognitive limitations as they are confined by the amount of time and information given (see Simon, 1990; Tversky and Kahneman, 1974); rational decision-making is thus restricted by these limitations. Instead, individuals resort to the use of heuristics or 'mental shortcuts' to help them make sense of situations (Tversky and Kahneman, 1974). For instance, the ease of bringing particular occurrences to mind (availability heuristic) and the influence of one's emotion at that moment in time (affect heuristic) are said to be the two key accounts of how heuristics can influence risk perception (Pachur et al., 2012). Heuristics are said to be a prominent construct in organisational decision-making as the conditions for decision-making often involve uncertainty.

**Second, that there is the need to further examine what exactly constitutes developers' experience that may be problematic for sustainable practice.** Based on the above psychological constructs and the research findings, there are differences in the experience of managers and the firm that make executive decisions in favour of green building practice. In the case of Bangkok's listed developers, I trace them back primarily to the managers' own expertise, the firm's history and established operating structure. These in turn can be linked to personal values, organisational learning, and normative practices in the industry.

### **Managerial experience**

The empirical findings on individual constructs of managers in Bangkok's largest property developers (**Chapter Eight** – especially findings on MO) have led to the understanding that there are particular objectives commonly identified and prioritised in the development process. For developers in Bangkok, these revolve around the social and economic values of the project, including but not limited to the quality, function, safety, and profitability of the project.

Referring back to the literature on perception and leadership, managers are influenced by their values and beliefs as individuals (e.g. Furnham, 1999; Robbins and Judge, 2014; Mullins and Christy, 2016) but also operate under their own set of philosophies and assumptions acquired through past experiences (Hambrick and Mason, 1984; Hoffman and Bazerman, 2005). The example given by Hoffman and Bazerman (2005) was managers' experience from business schools that would offer certain principles in business conduct to be held unquestionably. Educational curricula and business rules of thumb were similarly listed as institutional barriers to green building in Hoffman and Henn (2008). These were seen as part of the surrounding normative institutions that shaped the moral and ethical conduct of practices.

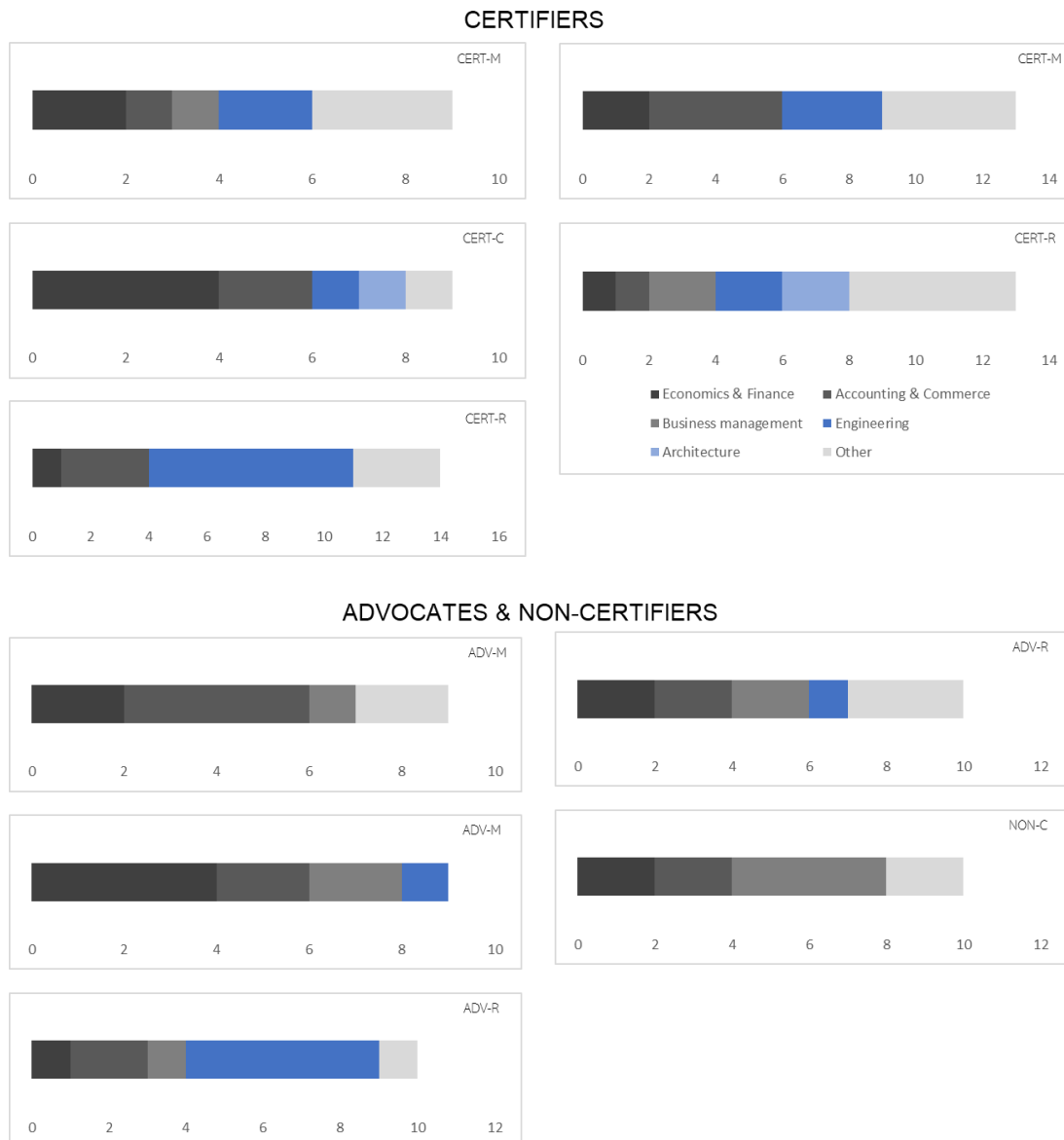
Hoffman and Bazerman (2005) noted how *taken-for-granted* assumptions may be 'implanted in [early] education at business schools' (p.25). Examples given of assumptions that relate to environmental practice include 'the idea that profit motive is the singular objective of the firm'; that 'the natural environment as a limitless source of resources', or even the 'unquestioned

necessity of economic growth'. These assumptions can lead to the support of detrimental actions toward the natural environment (ibid). I would further argue that they illustrate the type of assumptions formed under capitalism.

These dimensions from the literature and the empirical findings prompted one final investigation into the profile of managers and their past experiences. While the term 'experience' can encompass the managers' prior life experiences, I limit this discussion primarily to practice-related experiences due to the accessibility of resources and data. Looking across the training experiences of the BoDs from Bangkok's SET-listed developers, results show that most of the managers hold first degrees in economics, business administration, finance, and law, and a second degree in business administration. At least one of the degrees was also obtained from an overseas institution **(Appendix 21)**.

The number of executives that held a degree in the built environment (e.g. civil engineering, architecture, or urban planning, real estate) was relatively small. Some boards even comprised of no members with a built environment degree. This may explain the commercially oriented perceptions and objectives prioritised by the majority of the managers. Essentially, Bangkok's largest developers were trained as business entrepreneurs, and their perception and decisions in environmental practice are a strong reflection of this.

A comparison of board experience between Certifiers, Advocates, and Non-certifiers is where a pattern begins to emerge. **Figure 41** briefly illustrates the composition of board members in ten of the listed developer organisations according to their professional backgrounds. In the Certifiers, there was a higher number of managers trained in a built environment or engineering-related discipline (highlighted in blue). Compared to the Non-certifiers where there was a higher tendency for managers to be from a business or finance-oriented discipline (highlighted in dark grey).



**Figure 41** Bangkok listed developers – BoDs profile

Source: Research fieldwork

Triangulation of data between the interview findings and the managers' professional background continued to show that managers who displayed higher levels of commitment and motivation toward sustainable properties were trained in civil engineering, architecture, or urban planning. Conversely, managers with business or finance backgrounds were more inclined to discuss green building and sustainable practice as a matter of cost and benefit for the organisation. While these findings are not statistically representative, they offer a glimpse into the possible insights attainable

through further exploration of the connection between managerial experiences and sustainable property development.

While there are not many studies investigating the influence of managerial experience on sustainable organisational practices, those that have showed similar findings. Walls and Hoffman (2013) for instance studied the relationship between environmental experiences of board members and the organisation's engagement in voluntary environmental activities where a strong correlation was found. The study defined the firm's undertaking of voluntary environmental activities as a form of organisational deviance, where 'positive environmental deviance' signified the firm's mitigation of environmental impact beyond the requirements of regulation. The authors further explained that organisational deviance is relevant in the discussion of environmental sustainability and corporate sustainability because positive deviation from institutional norms is critical for the establishment of innovative practices that foster institutional change. More specifically, they note how,

...the institutional context limits the extent to which decision makers within organizations rationalize their actions by creating cognitive constraints and boundaries on their interaction with the larger environment (p.255)

Their study found that 'even when pressures to conform to [normative] practices were strong, a board with high experience could incite a company to deviate positively from its peers' (p.264). Walls and Hoffman (2013) concluded that leadership roles can be crucial in discussing environmental sustainability and institutional change as positive deviance is 'arguably the only way' for society to advance towards more radical sustainable approaches (p.266).

The overall understanding around managerial experience resonates with aspects of leadership and individual responsibility that were formerly discussed and highlights the significance of certain psychological constructs. I would further argue that especially in the case of Bangkok where firms operate under a strong hierarchical structure, considerable attention needs to be paid to the role of leaders who steer the organisation.

## Corporate experience

Findings on CMP (**Chapter Seven**), PGBP (**Chapter Eight**), and the SET-listed developers' corporate profile (**Chapter Six**) suggest that the experience of the firm has led some developers to be more inclined to adopt green building practice. In organisational literature, experience has been explored under the context of *organisational learning* (see Argote and Miron-Spektor, 2011), and has been associated with responsible organisational behaviour and sustainable practice (Antal and Sobczak, 2004). Corporate experience (or organisational experience) is seen as a vehicle for knowledge creation and retention; a change in the organisation is said to occur as it acquires new experiences (Argote and Miron-Spektor, 2011).

Argote and Miron-Spektor (2011) in their framework for organisational learning view organisational knowledge as composed by the 'active' and 'latent' components of the organisation. The *active component* refers to members and tools within the organisation that knowledge resides in and transfers through. The *latent component* is described as the background components of the organisation which influence the active context, and consist of the resources, culture, and structure of the organisation. Knowledge is created, retained, and transferred by the active components as the primary mechanism but are equally influenced by the latent components which they operate under. The latent component is also constantly changing as new knowledge is acquired and embedded within the organisation.

Based on this understanding, I propose that corporate experience can be distinguished as existing in both the 'active' and 'latent' context of the firm. Experience in the active context refers to the collective experiences of individuals that make up the firm's knowledge repository. These represent skillsets and ideas that are dynamically shared across the organisation. I further postulate that experiences in the active context overlap with managerial experiences discussed in the former section. It was evident in the empirical findings that there were managerial experiences and constructs that aided developers' decisions to construct green buildings. For example, a manager with past experiences in the energy sector was able to bring new knowledge on working with



energy-efficiency to the firm. In turn, the property developed by their team was more energy focused which led to more energy-efficient designs compared to that of conventional practice.

Experience in the latent context is representative of past practices that have shaped the firm's present structure and profile. These are, for instance, the availability of resources, the organisational structure, the firm's business model and elements from corporate history. In the case of Bangkok, the most essential latent components shown to influence developers' response to green building practice were their business model, corporate strategy, corporate history, and arguably their financial resources. Developers with long-term business strategies with socially or environmentally oriented corporate history and a higher turnover of net profit were more receptive of green building practice. Findings on CMP and CER also found that Certifiers had more policies related to knowledge-sharing and aspirations to gain international recognition.

Literature on organisational learning explain this as organisations having a broader number of networks that enable diffusion of information (see Walls and Hoffman, 2013) and more frequent activity between the active context and external environment (Argote and Miron-Spektor, 2011). In their study, Aguilera-Caracuel et al. (2012) similarly found that diversity in international environmental experience positively relates to proactive environmental strategies in firms and similarly highlighted inter-organisational collaboration for knowledge sharing as valuable to the organisational learning processes (see Aguilera-Caracuel et al., 2012). Firms such as Univentures and Singha Estate have vividly conveyed how the history of the firm have influenced their current philosophy and created more leniency towards green building practice (see **Chapter Seven - CMP**). Findings on CER also confirm this as Certifiers were shown to have more networking and collaboration with external organisations and communities to share and discover environmental solutions.

Antal and Sobczak (2004) explains that understanding the processes behind organisational learning is important for promoting sustainable change. Organisations have to move beyond current ways of practice, and this requires them to 'learn to expand their agendas and their repertoire of

behaviour' as well as 'think and behave differently' (pp.80-81). In the context of private property development, developer behaviour is locked-in to the standard norms of business practice where economic objectives are treated as the main goal. The active components of the organisation (i.e. managerial experiences) are also confined to the same entrepreneurial standards where professional training in business and real estate emphasises business profitability. Private developers are looked upon as economic agents in the industry and it is this very institution that makes sustainable practice in the sector challenging.

Learning as well as '*unlearning*' is discussed in the literature. Unlearning is seen as another form of learning by which engrained practices are to be 'let go'; an important process for organisations to grasp new approaches (see e.g. Antal and Sobczak, 2004; Argote and Miron-Spektor, 2011). There may be the need for certain norms in private property development to be revisited or 'unlearned' in order to accommodate the changes needed for sustainability. Bangkok has shown that there were a few outliers in the industry where managers have sought to challenge normative practices and inspire change in their approaches to property development. This same group of managers were more open and accepting of green building practice.

## **Discussion**

The intention of this chapter was to recapitulate and identify synergies between the key findings and to further reflect on organisational and psychological constructs that may have barred or influenced Bangkok's largest property developers in undertaking green building practice. In doing so, I drew on some of the prominent findings across the empirical chapters (**Chapters Six, Seven, and Eight**) and discussed them under three common themes: responsibility, leadership, and experience. The discussion unveiled organisational and psychological constructs at individual, organisational and institutional levels that were shown to influence developers' decisions to build green.

In the first part on *responsibility*, I discussed the significance that individual levels of responsibility had on managers' decisions and explained why it can be seen as a rare occurrence in the context

of commercial property development for private actors to possess such construct. Notions of responsibility were shown to shape green building in the way that it motivates managers in the decision-making process and the order to which environmental practice is prioritised. This contrasted with the implications that corporate levels of responsibility had on Bangkok developers where a large number did not connect CSR practices to sustainable property development. CSR efforts exhibited by Bangkok's largest developers conformed to what the literature describes as 'peripheral CSR'; responsible practice undertaken outside of the organisation that is not embedded in the organisational processes. These findings offered insight into additional areas that future policies in green building may and corporate responsibility seek to explore. They also suggest a need to revisit the understanding of CSR across different regions (particularly those with minimal uptake of environmental practice) which has shown, in the case of Bangkok, to be interpreted in a different light.

The second part of the discussion on *leadership* echoed the above constructs on the significance of top managers and their individual constructs. The section discussed the transformational and ecocentric qualities of leadership as prominent characteristics of managers from Certifier organisations. These highlighted the managers' moral considerations, confidence, and openness to change. The latter half of the section further unpacked implications from the ecocentric paradigm which highlighted the constraints that the capitalist political economy is posing on developers' decision to build green. The analysis went beyond the economic rationale – it considered how the system constrained managers' perception of responsibility and their role as developers.

Third, I discussed *experience* as the final theme. This section explored how managerial experience and corporate experience were able to influence green building decisions. The most important element from this discussion was the importance of learning and how knowledge from within and outside of the organisation can be effectively shared and transferred. Managers with past experiences in energy or the built environment sector, for instance, brought valuable information and skills that enacted a more environmentally friendly response. While the empirical findings that were used to generate this discussion may not be as robust, the discussion offered some insights

into the way organisational learning can be used to promote environmental practice. This leads to implications for policy-making and ways that it can facilitate learning processes, as well as highlights the importance of education and the pedagogy behind business and real estate practices.

In summary, my understanding that developed over the course of this research can be framed under the following three arguments: first, that there are other organisational and psychological constructs involved in shaping developers' response to undertake green building practice. Second, that distinctions have to be made when addressing psychological constructs pertaining to developers' organisational behaviour on a corporate level (i.e. of the firm) and on individual levels (i.e. of employees and decision-makers within the firm). Third, these psychological constructs are constantly being influenced and confined to cultural norms and institutions beyond the boundaries of the firm. That is for example, what the external environment – or society – construes as the roles and responsibilities of a private developer, what it construes as good corporate citizenship, and the standard principles behind sustainable business practice.

More specifically, I now argue that reflecting on organisational and individual constructs alone may be insufficient to address the delivery of sustainable practice. In analysing these findings, it is evident that these psychological constructs are equally shaped and reinforced by external institutions and cultural norms. To further exemplify my position, I refer back to Rousseau's (1995) work on norms and psychological contracts. Rousseau conceives firms to be operating within the boundaries of 'unwritten agreements' that take place on individual and group levels, and those within and beyond the boundaries of the firm (see Rousseau, 1995, p.9). Organisational behaviour is influenced by its social contract where its obligation to the wider society affects how responsibilities (promises) are interpreted by its workforce.

In Bangkok's culture, and for most developing and developed contexts, real estate and private property development as practices and disciplines are economically orientated. The type of properties developed and the extent to which green building *can* be incorporated are thus fixated on the commercial nature of the practice that is bound within the realms – or 'norms' – of

conventional business practice. In the case of SET-listed developers in Bangkok, this is further exemplified by the apparent necessity to maintain their market position within the oligopoly. Certifiers have managers that lead the firm with a more proactive sense of environmental commitment, but these commitments are only realised in practice if and when decision-makers are able to identify and realign these initiatives to the norms of private property development.

**To this end, my perspective on developers and green building has shifted from an agency point of view towards an in-between perspective that reflects on and acknowledges the duality between structure and agency.** This poses implications that prompt changes and transition on a structural level as the psychology of individuals and the firm pertain equally to conditions of social norms found in the external environment. By this, I mean to address the principles and institution behind private real estate development, the institution behind for-profit business practice, and the inherent principles and institution behind the capitalist market economy. In the next and final chapter, I seek to draw on some of these understandings to conclude and address the main research questions set out in **Chapter One**, providing a final recapitulation of the research. The above discussions have prompted me to recognise the importance that both individual behavioural constructs as well as the surrounding normative and cognitive institutions have on developers' decisions. **Chapter Ten** draws on some of these areas to provide implications for future green building practice and possible areas for further research.



# Chapter Ten

## Conclusion

This research began on the premise that green building practice and its adoption by private developers in developing regions was limited by financial or technological constraints that made it impractical for developers. In the introduction (**Chapter One**), I suggested that this may be an oversimplification of the factors involved; that developers – as organisations – are subjected to other forms of psychological barriers and constraints. On this basis, I proposed to set out and investigate the behaviour of developers and their engagement in green buildings under an organisational behaviour framework.

**Chapter Two** delved into literature on organisation theory, organisational behaviour and corporate sustainability so as to develop an understanding of how organisations behave and with it, discuss the main organisational and psychological factors. **Chapter Three** applied these findings into a theoretical framework that addresses how developers – as organisations – are influenced by their external environment (economic, social, political, technological, and physical factors) (Katz and Kahn, 1966) as well as the psychological factors that reside in their culture and leaders. The understanding was that these psychological factors shape the decision-makers' *perception* of the external environment which in turn leads to a particular organisational response.

The latter half of **Chapter three** narrowed down the proposed framework into eight psychological AoIs (four representative of organisational culture and four of managers' individual constructs) in preparation for the empirical study. **Chapters Four** and **Five** outlined the methodology and context for the study of large private developers in Bangkok. The fieldwork conducted consisted of a document analysis on 44 publicly listed developers followed by a series of semi-structured interviews with 22 of their senior and top managers.

**Chapters Six, Seven and Eight** presented and discussed the empirical findings from the fieldwork including findings on the eight psychological AoIs. **Chapter Nine** wove together the key findings across the three chapters to further discuss the developers' responses under three main themes: *responsibility, leadership, and experience*. The three themes represent the most significant psychological constructs that emerged from the fieldwork.

In **Chapter Nine**, I mentioned that the above three psychological constructs pertain to the developer firm, but that these do not exist without external determinism. It is at this point in the research that my position on the subject shifted from an agency point of view of understanding developer behaviour to an in-between position that equally recognises the significance of norms and institutions in the industry that shape developer behaviour. Psychological constructs within the firm are ultimately mediated by values in the firm's external environment.

The findings from the investigation into the behaviour of Bangkok's largest developers show that the city's own institutional setting – one that is overseen by the capitalist market economy – is creating perceived roles and responsibilities for private developers that inhibit green building practice as all corporate decisions are assessed in light of its *feasibility*. For firms that are able to align green building benefits with business interests, green building is a success. For those with environmental concerns but are unable to financially justify the green building practice, environmental efforts are renegotiated. Without conforming to institutional norms, developers as business operators are unable to survive. Yet the definition of what construes viable business practice is in itself a social construct determined by society's very own institutions.

Although acknowledging the implications that institutions have on organisational behaviour is not new, this research has offered empirical insight into how institutions within the property sector and the market economy may constrain the behaviour of some of the most dominant private developers and their uptake of sustainable practice. That is not to say that the identified psychological constructs within developer firms are irrelevant to their behaviour (discussed in **Chapter Nine** regarding the nuances in responsibility, leadership, and experience that influence developer



behaviour and their perception of the external environment), what I reiterate in the conclusion is the need to reflect on the wider institutions and norms within society so as to enable more radical change.

This final chapter aims to collectively reflect on the above understandings to respond to ‘how’ and ‘why’ private developers engage in green building practice, providing answers for the three research questions that were presented in **Chapter One**:

- *What are the key factors involved in shaping private developers’ responses to engage in green building practice?*
- *To what extent do organisational and psychological constructs impinge on efforts and responses of green building practice?*
- *How do these factors relate and interact to affect responses to green building practice?*

The rest of this chapter carries these answers forward to discuss its implications for research and practice; primarily reflecting on the need to address normative and cognitive institutions behind sustainable property development. The chapter begins by addressing the main research question.

## **HOW AND WHY DO DEVELOPERS ENGAGE IN GREEN BUILDING PRACTICE?**

Human behaviour and decisions are influenced by the information that we are given, but as we have limited capacity to process the extensive amount of information, we resort to heuristics – or mental shortcuts – in making our decisions. These are foundations to Simon’s (1957) work on bounded rationality which have been highly influential in establishing current understandings of decision-making in organisations. Organisational literature recognises that decision-makers are bounded by their own cognitive constraints, creating biases that reflect their own perception of the world (see e.g. Hoffman and Bazerman, 2005; Hoffman and Henn, 2008; Robbins and Judge, 2014).

In other words, as organisations are made of people those that lead the organisation (be it through authority or informal influences) shape the way organisations behave through their biases. Top managers are regarded as having great influence over organisational decisions, Hambrick and Mason (1984) even go so far as to say that organisations are a direct reflection of their top managers. The organisation itself retains some of these values that are shared and reconstructed overtime in the form of culture, creating normative standards of behaviour that shape the way members perceive and interpret their environment.

The empirical findings on Bangkok's SET-listed developers have evidenced how decision-makers' in property firms and their conception of responsibility for the environment and duty as developers can indirectly constrain or promote decisions to undertake green building practice. **Chapter Nine** particularly sought to further discuss some of the main constructs that revolve around notions of responsibility, leadership, and experience on both individual and corporate levels. Presented in this chapter were certain patterns of psychology that were distinctive to property firms and their leaders that were more accommodating and lenient towards environmental practice.

However, decision-making and human behaviour takes place within a societal context – a realm where psychological constructs are adjusted and realigned with what society construes as acceptable standards of behaviour. These represent social and cultural norms that act as broader institutions that restrict as well as are foster individual choices. There is a duality maintained between private developer behaviour and the collective contribution of the multitude of developer behaviour that can prompt as well as constrain sustainable practice in the industry. Decision-makers are influenced by their own personal values; these directly reflect (or are realigned to reflect) normative practices within the firm (i.e. the firm's organisational culture). Organisational norms are further regulated by broader sets of norms in the wider industry and national context (i.e. social, national and cultural institutions). As much as the decision-makers' behaviour is restricted by the norms in organisational culture and the external environment, they continue to create and reinforce these norms through their behaviour; this also applies to firms as organisational decisions continue to create and solidify norms within the wider industry.

It is exactly through these lenses that the behaviour of private developers cannot be decoupled from the psychological constructs posed by leaders and culture of their firm as well as the norms within the wider culture within which they operate in. With these understandings in mind, my answer to the research questions are as follows:

- *What are the key factors involved in shaping private developers' responses to engage in green building practice?*

The literature has shown that the way organisations behave is dependent on the individual constructs of their leaders (e.g. their personality, attitude, and values) (see Hambrick and Mason, 1984; Furnham, 1999; Yukl, 2013) as well as the structure and culture of the organisation (see Schein, 1984; 2017). Maintaining the basic assumption that private developers operate as commercial organisations, the behaviour of developers is contingent on open system organisations and thus susceptible to the same psychological constructs.

The theoretical framework presented in **Chapter Three** reconceptualises the behaviour of developers as organisations. It positioned decision-makers in organisations in the centre of the framework. The decision-maker is influenced by factors in the organisation's external environment (i.e. economic, social, technological, political, and physical – Katz and Kahn, 1966), but the way they perceive and respond to these factors is influenced by other structural and psychological constructs within the organisation. The main psychological constructs were identified as the values and norms embedded within the culture of the organisation and the attitude and values of the decision-makers as individuals.

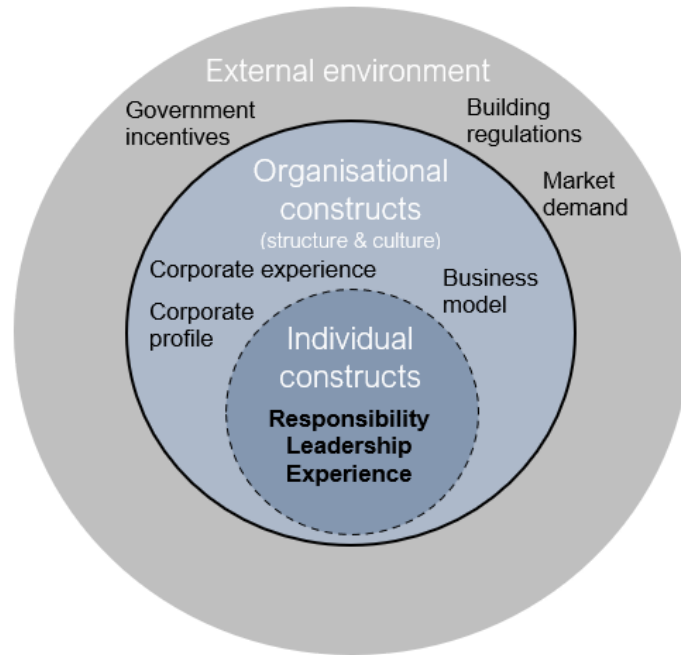
These three areas – the external environment, the structure and culture of the firm, and the individual constructs of its leaders – through a cognitive process are seen to lead and inform decision-makers' response. Thus, the main factors involved in shaping private developers' responses (to green buildings or other development decisions) could arguably be seen as facets

of the external environment, the organisation, and its leaders. I argue that the latter two have been less referred to in existing property research and literature.

However, the influence that these three areas have on a particular firm vary depending on the different contexts, cultures, and the individuals within it. In the case of Bangkok's largest private developers and their adoption of green building practice, it was found that the most prominent factors lie in the individual constructs of its managers and the external environment. On an individual level, these include the managers' experience, leadership and their perception of responsibility; and in the external environment, government incentives, market demand, and building regulations. There were also emergent factors such as corporate history, profile, and strategy that were shown to be potentially influential. These factors were presented across the empirical chapters (**Chapters Six, Seven, and Eight**) as well as further discussed in **Chapter Nine**.

- *To what extent do organisational and psychological constructs impinge on efforts and responses of green building practice?*

The answer is exemplified with consideration of the above understandings together with the theoretical framework outlined in **Chapter Three (Figure 7, p.91)**. **Figure 42** redraws the visualisation of the eight psychological AoIs according to the different tiers of constructs (cf. **Chapter Three, p.99**), but are now replaced with the most prominent psychological factors identified from the empirical research.



*Figure 42 Bangkok developers' perception of factors in green building*

*Source: Research fieldwork*

The process and extent to which organisational and psychological factors impact developer behaviour and response to green building can be summarised as follows:

- It begins with the acknowledgement that there are specific trends and states of affairs that exist on the landscape within which firms operate. In the **external environment** of the organisation there are building policies and regulations that may or may not enforce green building. These are powerful top-down influences that building and construction policies have on developers; some incentivise green building through voluntary and legislative procedures. There are also influences on the real estate market in the form of supply and demand. It is crucial that developers are able to respond and cater to their target market. In Bangkok's case, demand for green building only exists in high-end projects thus rendering it unattractive for private developers that seek to deliver housing and offices that adhere to the status quo.

These factors – *government incentives, building regulations, and market demand* – exist as part of the social, political, and economic environment (Katz and Kahn, 1966) and are constantly changing (i.e. undergoing turbulence). Firms, including developers, seek to adapt with these changes to ensure their businesses continue to survive and prosper.

- Within the organisation, on a corporate level, are factors that exist and stem from the structure and culture of the firm (**i.e. organisational constructs**). The structure of the firm represents the resource profile of the organisation; its revenue model, age, organisational units and divisions. This influences its business strategy which correlates with the experience and culture of the firm. The firm's culture represents the 'softer' components such as certain norms, mentality, and approaches to the day-to-day operations that are retained collectively by individuals within the firm over time. The structure and culture of the firm influence strategic decisions and employee behaviour.

In the case of Bangkok's listed developers, there are characteristics of *corporate history and experience, business model, and corporate profile* (i.e. financial resource and size of the firm) that are distinctively applicable to developers with green building. This includes, for instance, developers' corporate history and experience in sectors with high environmental impact or philanthropic endeavours that have given rise to a 'giving' culture that is retained in strategic decisions of development projects. Wealthier and larger developer firms were found to be more inclined to undertake green building projects. Furthermore, green building appeals differently to developers depending on their business strategy. For residential developers in Bangkok whose model is usually short-term (i.e. one with fast sales of units with limited after-sale involvement), green building is less attractive as developers are unable to anticipate benefits that a 10 to 15% cost premium would have in the short-term. For commercial and industrial

developers however, the operation is mostly based on the long-term management of buildings for leasing, thus green building becomes an interesting prospect as it can serve as a marketing element to attract high profile clients as well as save on operating costs.

- Decision-makers within developer firms are influenced by factors in the external environment as well as the norms (cultural and structural) within the organisation. However, an individual is also affected by their own values and experience (**i.e. individual constructs**) which influence their perception of the external environment thus realigning their own values within organisational and social norms; therefore decisions vary between decision-makers.

The findings from Bangkok have shown that the decision-makers' (in this case top managers') perception of responsibility, their leadership quality, and their own personal experience significantly alters their response to green building. *Responsibility* being the way managers perceive their duty and role as a private developer (i.e. their prime objective, what they believe the practice entails) as well as their role and responsibility towards environmental preservation (i.e. whether they believe that it is part of a developers' responsibility to cater and prioritise environmental practice). Developers with green building have also exhibited *leadership* qualities that are more akin to what the literature terms as 'transformation' or 'ecocentric' leadership. Managers that are in favour of green building also usually come with *experience* from an urban discipline (e.g. architecture, urban planning, or engineering) and less from a business management background – which is the case for most high-level managers and directors in Bangkok's property industry (see **Chapter Nine**).

The above suggests that decision-makers in property firms may be influenced by various factors in the external environment (especially the socio-political landscape and the market), but their perception and interpretation of these factors is a reflection of their own values. Under this

cognitive process, different managers come to different conclusions about the viability and attractiveness of green building to which some may be more in favour or reluctant to adopt the practice. This summary of the cognitive process reflects the theoretical framework outlined in **Chapter Three**.

However, in light of the analysis and discussion drawn from the empirical findings across the eight psychological AoIs (**Chapters Seven and Eight**), it is evident that developer behaviour is structured and bound equally by a broader set of norms. In answering the third research question, I set out to discuss the implications that norms and institutions founded within the culture of the external environment can also act as another tier of influence on the aforementioned psychological constructs and significantly restrict developers' effort to deliver sustainable practice.

- *How do these factors relate and interact to affect responses to green building practice?*

Drawing on the theoretical framework and empirical findings from this research, my understanding of the mechanism behind developer behaviour and decisions to engage in green buildings are functions of a cognitive process. More specifically, that organisational and psychological factors within an organisation (whether they stem from the structure or culture of the organisation or individual constructs of the decision-maker) act as a filter that skews and influences the decision-maker's perception of their external environment – a similar analogy to that of Hambrick and Mason (1984) on top managers and strategic choice.

This understanding is primarily based on theory and literature from organisational studies, incorporating the postulations behind Katz and Kahn (1966) conceptualisation of the five external environments; literature on organisational culture (Schein, 1984; 2017) and psychological contracts (Rousseau, 1995) and Weick's (1969) theory on enactment. It recognises the multitude of 'softer' factors that shape organisational behaviour that comes from within the organisation. That under a cognitive process, organisational and psychological constructs that take place on corporate and individual levels work together to influence the



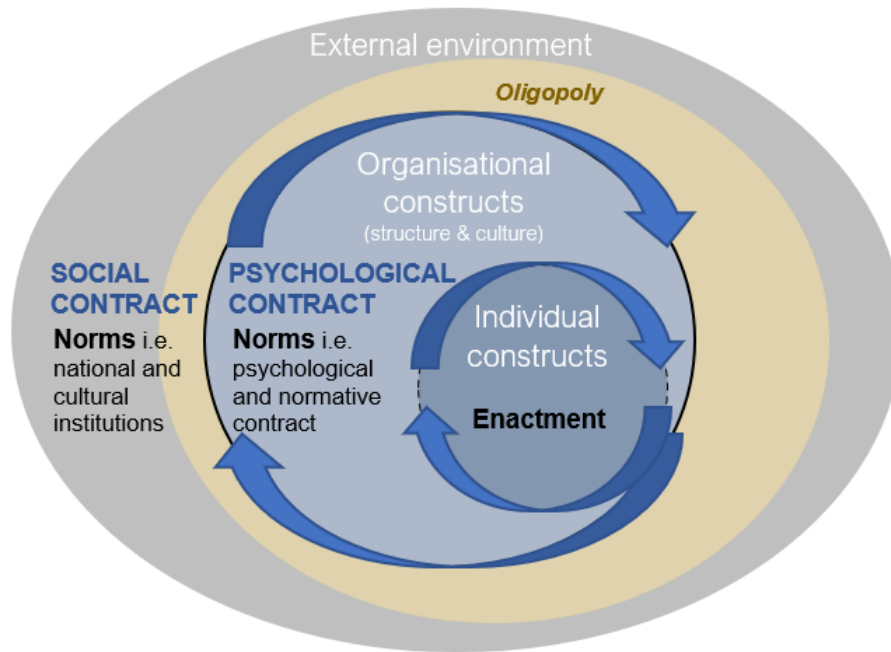
decisions made by key decision-makers within the organisation and therefore the organisation's behaviour.

In the case of developers, I argue that these organisational and psychological constraints specifically influence the decision-makers' *perception* of feasibility in development of green building projects. By determining what is feasible and viable, developers analyse the trade-offs between cost and benefit. This process is subjective; cost and benefit are relative to the values they are assigned by the decision-maker – e.g. what is considered a benefit and to whom is it benefiting? (you, the company, or the planet?); what is the trade-off and is it worth it? (what are the benefits of green building? Can it help with climate change? Will I make a difference?). The answers to these questions are relative to each individual but will in turn act as determinants to choices and decisions.

This view, however, is taken from an agency perspective; one that views the world from the position of the decision-maker and of the firm. Ultimately, 'what is feasible' is a product of an assessment process that is contingent on the values inherent to that individual as well as the alignment of these values to existing norms. There is a constant process of self-reflection (conscious or subconscious) to assess, renegotiate, and realign behaviour and decision-making with the collective understanding. Individual perspectives are retained and bound by psychological and social contracts (Rosseau, 1995). By this, I mean normative institutions within the organisation (i.e. organisational structure and culture), but also normative institutions within the external environment or the organisation's wider national and socio-political context. In the case of private developers, the most powerful norms and institution is founded on the fundamentals of classical economics and business rationale that is inherent in today's capitalist market economy. Developers' response to green building and the broader environmental and sustainability agenda is skewed to conform to these norms of conventional practice; and inherently what *is* 'feasible' is only a by-product of what normative practices in society determines them to be.

This poses a challenge for the delivery of sustainable properties in the private sector; echoing the paradox that scholars have highlighted as conflicting trajectories between capitalism and the strong sustainability paradigm. There is an inevitable challenge decision-makers are faced with when attempting to align environmental practice with business objectives. Psychological constructs within the firm may prove to be powerful drivers which stimulate the transition towards environmental practice, however decision-makers must compromise with normative institutions for corporate survival. When a firm undertakes environmental practice, its leaders are seen to have been capable of identifying the business benefits of those practices. Within Bangkok these firms are still outliers in the industry, the majority either perceive environmental commitment in business as a non-priority or are forced to surrender their initiative to comply with normative institutions posed by the capital market.

Bangkok developers are aware of the implications of environmental practice and most are determined to contribute 'as best they can' (i.e. Advocates). My understanding is that the capacity to which they are able to contribute to environmental practice and the sustainability agenda is determined – or 'regulated' – by the country's own institutional setting. In **Figure 43**, I illustrate how the psychological constructs in developer behaviour work together, this diagram follows the diagram proposed in **Figure 42**. It visualises the two levels of normative institutions that oversee the organisational behaviour of developers and the relationship that these hold with the individual and organisational constructs as identified within this research's proposed theoretical framework.



**Figure 43** Developers' perception of psychological factors in decision-making

Source: Author

Identified in the diagram are two levels of normative institutions that 'regulate' decision-makers' enactment of their external environment and the culture of the organisation. I borrow terminologies from Rousseau (1995) to identify and distinguish these two levels of norms as part of the *psychological contract* and the *social contract*. The psychological contract represents what Rousseau defines as psychological and 'shared' psychological contracts (or 'normative contract') within the firm; these represent norms that take place on individual and group levels within the organisation that act as unwritten mutual forms of agreement to how practices are to be undertaken. The latter, social contract, is a similar mutual form of unwritten agreement but one that takes place between the firm and its society. It encompasses what Rousseau terms as 'social' and 'implied' contracts, and determines broader beliefs and obligations that the firm has in light of the national and cultural institutions that it operates under which indirectly determines its behaviour in practice.

The arrows in **Figure 43** that are representative of psychological and social contracts seek to capture the constant exchange between normative institutions, individual constructs, and organisational culture. This exchange is reciprocal – as much as behaviour is realigned to normative practices, individual behaviour also has the capacity to reinforce and retain patterns of behaviour overtime that may give rise to future norms. However, in Bangkok’s SET-listed developers, firms have shown less autonomous behaviour in driving change in normative institutions set out by the industry. Often, there remains a collective unquestioned mode of compliance towards the usual norms and standards of practice, and changes are anticipated to originate from an external source.

In summary, developer behaviour can be seen influenced by the psychological constructs of its members and decision-makers that take place on an individual level (enactment), as well as the organisational and psychological constructs that take place within the firm’s structure and culture (renegotiated norms and psychological contract). These constructs are concurrently overseen and realigned to adhere to normative institutions in the firm’s external environment (social and implied contracts). In the case of Bangkok’s largest developers, social contracts are determined by the culture and norms of the oligopoly represented by the yellow shading in the external environment in **Figure 40**.

The key takeaway from this research is the vivid evidence outlining how individual and organisational constructs do not exist in isolation of the broader norms and institutions – or *taken-for-granted assumptions* – embedded in the external environment. The literature depicts how firms do not exist in total external determinism (Hoffman, 2001), and that psychological and social contracts can be transformed by the firm’s behaviour. For private developers and green building practice, a key constraint can be attributed to the institution of the capitalist market economy and for-profit business practice.

Discourse in green building and sustainable property often take place under the frameworks of business and economics. In the earlier chapters of this thesis, I have outlined how existing

approaches to green building (be it in industry or academic literature) have mostly framed green building as a matter of financial cost and benefit. This closely reflects the rhetoric that green building discourse is set up to appeal to private developers and real estate investors. The normative institution to which real estate development is grounded is in itself a variant of business economics; at its crux, its principles are conceived based on these fundamentals which makes it inflexible for sustainable discourse to be fully carried out. For this reason one can argue that it is unforeseeable that private property development will undergo radical change without an external 'shock' to the political-economic system.

I set out to address implications for future policy and research in the final sections. I focus primarily on the need to restructure certain instruments and institutions in private property development. While the recommendations provided are drawn from the findings on SET-listed developers in Bangkok, the implications derived from this research can be applied to private property development in other regions as real estate is mainly a commercial practice in most countries. I discuss this further in light of the need to address green building and sustainable property development as an institutional agenda and suggest that it is society's very own institutions of the capital market that pressure and constrain sustainable behaviour and practice. It is by altering these taken-for-granted institutions that I believe radical change may begin to transpire.

### **IMPLICATIONS FOR POLICY AND FUTURE RESEARCH**

The behaviour of Bangkok's top managers and largest developers has been highly constrained by their own commercial nature and practice as private developers. That is to say that under their own process of renegotiation and alignment of their own values to the norms of real estate and business practice, they face a conflicting environment that is dissuading and even bars them from the pursuit of sustainable properties. Developers in Bangkok are aware of the importance of building green, they believe it is a positive choice and have the skillset to do so but are deterred from the practice as it may not be the most economically viable option for their business. The majority are left waiting for the government and market to incentivise the practice; the most attractive incentives being of commercial or monetary value.

While facets of responsibility, leadership, and experience have enabled some of the developers to deviate from conventional practice and defy institutional norms (as discussed in previous chapters), the majority are still caught in what is referred to as a 'green prison' (Pacheco et al., 2010). Using the metaphor of the prisoner's dilemma to explain this phenomenon, Pacheco et al., explains how entrepreneurs are caught in 'a system of incentives that fail to encourage sustainable practices' and 'compelled to environmentally degrading behaviour' (Pacheco et al., 2010, pp.464-465). The stability of the system also means that this behaviour can persist over a prolonged period provided that there are no interventions made to the system.

These dynamics may also be relevant to other disciplines and sectors of the built environment. For instance, Smyth (2013) found that in the case of major international construction firms, profit was given utmost priority; health and safety were equally seen as top priorities while environmental sustainability was regarded as 'a second level priority' (p.5). The firms' take on environmental practice is said to be 'largely framed around compliance and best practice rather than proactive development' (p.1) as they primarily behave as 'responders' and 'followers' to the market.

It is for this reason that the implications outlined in the final sections will reflect on the need to address individual constructs as well as the institutions surrounding property development and sustainable practice.

### **Sustainability and green building as an institutional agenda: a role for policy**

Throughout the course of this research, it has been theoretically and empirically evidenced that there are other barriers to green building that are beyond economic or technical practicality. **Chapter Two** and **Chapter Three** offered a theoretical understanding of the way organisational and psychological constructs may be able to shape developer behaviour and their decisions to engage in green building. **Chapters Six** through **Eight** empirically evidenced some of these constructs, their impact on Bangkok's largest developers and their decisions to adopt green

building practice. **Chapter Nine** drew some of these constructs together and discussed them under the themes of responsibility, leadership, and experience.

To date, barriers and drivers in green building have mostly been discussed from commercial or economic perspectives. Whether it is in practice, policy-making, or the literature, green building decisions are often seen as a matter of cost-benefit. Often, ‘softer’ organisational and psychological constraints have been omitted from the discourse. Yet, findings from this research have shown how individual constructs of top managers’ enable decisions to be made that are beyond conventional modes of practice; that there are other forms of corporate constraints; and that there are other normative (social) and cognitive (cultural) constraints that inhibit developers’ decisions that are beyond a matter of personal choice.

I propose that to be able to address these ‘softer’ constraints in practice, there must be changes that take place on an institutional level – this may mean changes in certain taken-for-granted assumptions. For instance, changes in the way we understand property development as a practice; the way corporate responsibility is interpreted; or the way that we as individuals perceive our responsibility in the process of sustainable development. And while the scale of these changes may be immense, I believe that there are certain steps in which policy can take to gradually enable these transitions.

One possibility is to revisit or explore new and improved models of partnerships (be it private-public, inter-organisational, community-based, or international partnerships) that will facilitate knowledge transfer alongside economic delivery of sustainable properties. Discussions on *experience* in **Chapter Nine** have led to the understanding that broader networks between developers can enable the exchange of softer constructs as well as best practices. Literature on organisational learning (e.g. Argote and Miron-Spektor, 2011), as well as those on responsibility (e.g. Antal and Sobczak, 2004) and altruism (e.g. Romeiro, 2000), may serve as useful sources in guiding the development of these models.

Second, the opportunity to revisit the frameworks and understandings of CSR in practice and reflect this in light of the literature and sustainable development goals. The case of Bangkok illustrates how CSR can be interpreted differently in theory and practice. Private developers in Bangkok often equate CSR to ‘peripheral’ philanthropic activities that may not have implications for change in its products and services, whereas the literature would suggest that CSR is the delivery of sustainable properties (see Wilkinson and Reed, 2008; Wilkinson and Sayce, 2015). There are discrepancies in interpretations of the concept itself; and while there is a range of studies that have looked at differences in CSR reporting and drivers across different contexts (e.g. Chapple and Moon, 2005; 2007), it may be helpful to further explore managements’ perception of CSR in support of these findings so as to develop more effective frameworks and policy tools to deliver CSR as well as approaches to sustainable business practice. Possible solutions are policy packages and training programmes that foster the exchange of knowledge and cross-fertilisation of concepts, ideas, and practices between different institutions (private sector, NGOs, academia, etc.) and industry sectors.

### **Re-institutionalising property development**

Following from the idea of approaching sustainability and green building as an institutional agenda, there are equally important implications to reflect on the institution and pedagogy behind property development as a commercial practice. Discussions on the ecocentric paradigm and managerial experience in **Chapter Nine** have highlighted the complexities behind environmental practice in a commercial context and reiterated the important influence of education and professional training.

Private developers in Bangkok are caught in a ‘green prison’ (Pacheco et al., 2010), they are *incapable* of trading their competitive advantage for collective goals in sustainable practice. This understanding is primarily due to assumptions inherited from their environment such as education, business training, culture, and other normative institutions that surround the developer. The way property developers understand property development is informed by the very own institutions we have created.



Arguably, the pedagogy behind property development in Thailand has been based on commercial objectives and financial resources. Looking at a particular higher-education real estate programme offered by one of the top institutions in Bangkok, its core modules revolve around market analysis, land economics, accounting, finance, law, and property valuation. Graduates and practitioners are trained to commercialise and trade land; more importantly, they have been taught to *seek profit* from trading land without much emphasis on the related social or environmental implications. Consequently, a ‘successful’ developer is one that most will define as those that can strategically trade and commodify land in the most efficient way. Perhaps, we may not be questioning the for-profit nature of processes in property development as often as we should.

At its extreme, I would argue against the commercialisation of property development for a sustainable future; but proposing such a solution would be overly naïve as it would completely discount our current systems and ways of practice. What is suggested, rather, is the need to revisit and reconsider our understandings of commercialisation in property and real estate in light of the sustainability agenda. Educational institutions and private business organisations would be a great place to start. There is emerging literature that emphasises the importance and ways that environmental education can be better integrated (e.g. Luke, 2001); and those that propose newer models and approaches to sustainable business practice<sup>23</sup> (see e.g. Heikkurinen et al., 2016; Hoffman et al., 2012). There are also concepts from degrowth economic theories that have been used to explain models of collective ownership in renewable energy (Kunze and Becker, 2015) as well as cohousing (Lietaert, 2010). Future research may seek to apply or develop these ideas further and what they may mean for sustainable property development.

‘Sustainability’ in the property sector is often addressed and discussed under the framework that can be referred to as ‘anthropocentric’ or ‘weak sustainability’ (see **Chapter Two** – see also Landrum, 2018)). This is depicted in the extent that environmental practice is perceived and integrated into day-to-day practice but also the system of private property development itself. As

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<sup>23</sup> Heikkurinen et al., (2016) addresses what ecocentricism can mean for organisations; Haigh and Hoffman (2012) explores *hybrid organisations* as new forms of sustainable business models

the main objective of the practice is to ensure corporate growth and survival, the natural environment is but an expendable resource that would be safeguarded provided that it complements these achievements. Through this model of operations, environmental impact can be minimised when possible. In the case of the SET-listed developers, underlying growth of the firm for commercialisation remains a core part and is not interchangeable with resource preservation. A business based on a strong sustainability paradigm would suggest a systematic change that is even regenerative or co-evolutionary with the natural capital (see e.g. Landrum, 2018). For property development, this may equate to building energy-efficient structures with reclaimed resources and locations, and only for those in need.

### **Implications of privatisation: a role for regulation**

My third and final point reflects much on the former two under one common theme: what privatisation means for sustainable building and property development. I have argued previously for the need to address sustainability through changes on individual, organisational, and institutional levels and newer ways of conceiving property development as a practice. However, these are long-term changes that can only be gradually anticipated over time. In this final thought, I reflect on the short-term implications of private property development and propose that it may be necessary to reconsider the regulations behind the development process.

To what extent are we able to rely on private developers to drive forth sustainable development? The answer to this question may vary across contexts and over different periods of time. In the case of Bangkok, history has evidenced that the lack of planning regime together with the country's economic growth and governance structure has mostly benefited private actors which has allowed them to dictate the city's urbanisation pattern (**Chapter Five**). The market-led approach meant that government institutions as well as practitioners cater to demands of the public without much consideration of long-term consequences, and capital paves the way for enterprise autonomy. This is not only the case with private property development but has also been evidenced in the extensive construction of road networks and promotion of private vehicle ownership which has led to conditions many refer to as Bangkok's 'traffic nightmare'.

Private land ownership has presented numerous issues for Bangkok over the past decade as well as contributed to the country's growing inequality (see **Chapter Two – Part I**). Market-led approaches in the construction of building and infrastructure have cost the city in terms of accessibility and environmental degradation. There is emergent research which confirms that Bangkok's rising surge of condominiums has led to gentrification and the displacement of local communities (Moore, 2015). The study found that these condominiums were set at unaffordable prices for local residents; thus only affluent households from other parts of the city occupied these new residences and showed limited attachment and interaction to the neighbourhood. Moore (2015) expressed concern in how these changes may lead to more fragmented communities and social segregation. And while the effects of gentrification can be argued both ways, it is most likely that these impacts were unplanned and unaccounted for by both government and private actors.

There is still limited attention given to exploring the socio-environmental impact of property development in developing Asian regions in the literature which can become further areas for research. Meanwhile, this may imply that for cities such as Bangkok where sustainable practices are imperative, yet voluntary and commercially unattractive, more stringent regulations should be considered. For instance, the extent to which property development should be privatised; the extent to which private developers are able to capitalise from their activities; as well as the building design and construction regulations they will need to comply with.

Some of the abovementioned implications stem from a brief overview and comparison of sustainable building in countries with stringent property laws and those without. While these findings are still speculative, positive trends emerge between the higher number of green buildings in countries with stronger pro-tenant property laws (see **Appendix 22**). For instance, Sweden – whose government strongly promotes the sustainability agenda and has worked with private developers to deliver low-energy residences (Swedish Institute, 2019) – has property laws that are perceived as being strongly pro-tenant and has a strictly regulated rental market. Countries such as the U.S., Canada, Germany, Malaysia, India, and the U.A.E. where there are a growing number of

green buildings, are countries with pro-tenant property laws and rent control that limit how much the property market can be capitalised. Singapore – most renowned for sustainable practice and certified green buildings – may have abolished rent control in 2001 but have ensured that green building practice is realised by integrating ‘Green Mark’ certification (Singapore’s own green building standard) as part of its building legislation.

In comparison, there are countries such as Thailand and others in the region (Vietnam, Cambodia, the Philippines, etc.) that have fallen short in the number of green building projects. In this region, developers are allowed free negotiation of rent (as well as rent increase) and have property laws that are deemed as pro-landlord.

## **IN CONCLUSION**

This research set out to explore and readdress factors in green building practice; in particular, the extent to which ‘softer’ organisational and psychological constructs influenced developers’ decisions to undertake the practice. It began with the premise that the way barriers in green building are currently conceived is an oversimplification of the factors involved and sought to develop a new theoretical framework from an organisational behaviour perspective that aimed to uncover some of these factors. The findings from this five-year journey have led to discussions not only on the act of green building implementation but on how sustainability, a contested concept, is viewed under a capitalistic agenda and the implications that this has on the future of sustainability.

The empirical evidence presented in this research has shown that there are influences from the ‘softer’ constructs on individual, organisational and institutional levels. In the case of Bangkok’s largest private developers, there were certain individual constructs in managers that enabled them to make decisions beyond normative practices. Managers that were future-oriented with high levels of self-motivation and responsibility were the few that have chosen to undertake green building projects. Similarly, there are organisational constraints in terms of business models and strategies that altered managers’ perception of green buildings. Managers’ corporate experiences were also shown to influence developers’ perception.

Arguably, the most significant finding from this discussion was the identification of other normative and cognitive institutions that constrain developers' decision to undertake green building despite their willingness and expertise. The challenges faced are hindered by the frameworks set out by the mentality of individuals that stem from and are concurrently retained by society's own cultural institutions. More specifically, the nature of real estate development as a commercial business practice raises questions regarding whether it can deliver sustainable practice or ever be completely 'sustainable'.

There is a significant need to continue to further these understandings, especially to reflect on the implications for future models of sustainable business and development practice that are founded on the stronger paradigms of sustainability. Private property development as a practice is locked-in to a path-dependent future within a capital market system; sustainable practice within the private for-profit sector will always remain limited and the trade-off between environmental protection in lieu of business gains, a paradoxical challenge. Radical transition towards sustainable property development encompasses more than merely construction using environmentally friendly methods. It is about instilling the necessity to construct; it is about exploring who the developers are constructing for, and it is about accessibility and ownership of environmental preservation. It is thus equally important for research and policy to address the informal institutions surrounding private property; not only to explore green building or equivalent forms of sustainable practice as merely a matter of cost-benefit.

With the growth of the private sector and market-led economies, there is a need to question some of the *taken-for-granted* assumptions in private practice posed by the capital market and to connect these with institutions in which values, morals, and ethics are established and transferred. While the findings from this research specifically delves into the oligopoly of large private property developers in Bangkok, there are implications that apply to sustainable practice in other cities. Bridging privatisation with capitalism is a universal challenge, and there will be calls for newer models of sustainable practice. For the property sector, there is the need to recognise and *re-institutionalise* the role of privatisation and private developers, and the implications of private land

ownership that is put forth by capitalistic projects. This will lead to addressing and restructuring normative and cognitive institutions to facilitate the transition towards sustainable modes of practice. Subsequently, the industry would no longer need to rely on key individuals or external system shocks to steer forward sustainable development, paving the way for sustainability and environmental practices to become a collective goal and effort, and the norm.

## Afterword

Private developers are commercial organisations and the purpose of business organisations is to generate profit and capital. Consequently, environmental concepts and sustainable practices are considered if they successfully integrate with the business' returns; if not, there is no basis for implementation. These were frequent responses I received during my fieldwork from interviews with Bangkok's largest private developers.

I began this research with the desire to understand why developers in my hometown and most of the developing regions were so hesitant to act pro-environmentally. I believed that environmental practice is anticipated from the private sector; and believed everyone – private, public, government, commercial or non-commercial – had a part to play in fostering the future of a sustainable society. By the end of the research, the responses I acquired made me reflect on my premise; that perhaps my expectations that the private sector *should* always act pro-environmentally may be ignorant or even, simply 'naïve'. I am ultimately asking why multi-million-dollar companies are not giving up capital to help save the planet.

The question became a moral battle that is difficult to justify: should we expect for-profit businesses to act environmentally even if that means they lose out on profit. Especially in contexts where environmental efforts are voluntary and go unrecognised. Should the private sector instigate environmental practice? Or leave it for people to create environmental demands in the market? Is it even considered righteous to capitalise on profit at the expense of the environment? Or would it simply be wrong for businesses to not prioritise profit?

While I have yet to find the grounds for a realist response to these questions, I strongly feel that the root of this moral dilemma lies in the institutions that our enterprise culture has created over time. The way developers capitalise on the property market is merely a logical response to what capitalism has imposed on them: putting a price tag on properties, commodifying land, marketing land, etc. The system encourages developers to work against the environment and surrounding communities; evicting, building, and trading for profit. Some believe that economic growth can be 'decoupled' from environmental impact. I stand on the opposite end of this argument and believe that as long as our enterprise culture stands, we will not be able to fully achieve socially and environmentally sustainable development.

My intention – while outlining critical arguments against the current state of private property practice – is not to paint the role of large private firms as evil or problematic. Rather, my focus and what I seek to accomplish throughout this thesis is to offer a snapshot of the 'softer' constructs involved in property development that are often overlooked in real estate discourse. Through the

study of Bangkok's developers, it is evident that there are psychological constructs that influence developers on an individual, organisational, as well as national level. These take place in the form of individual and shared values that are received and retained within the firm as well as external institutions. There are restrictions posed by our very own culture and industry that are founded on the capitalist economic system that bar sustainable practice. I am convinced by the literature on degrowth economics and those that posit how the fostering of 'sustainability' (i.e. strong sustainability) is barely possible in a capitalist market. To this end, planning policy and future patterns of development need to consider, and restructure on a systematic level, the norms of private practice and real estate for radical change. As Einstein once said: 'The world as we have created it is a process of our thinking. It cannot be changed without changing our thinking'.

The nature of property development business causes socio-environmental gains to be considered and framed in relation to commercial gains. It would be a challenge to discern cases where these contributions are fully independent of commercial ties. I draw on Green (2009) and his notion that regulating private firm's CSR compliance 'would be anathema to the enterprise culture' (pp.48-49). I feel the same about private developers. Asking them to prioritise the environment over their for-profit agenda would just be too radical or an unfathomable request. Looking forward, I hope that we will be able to achieve a truly just and environmentally sustainable society, and I believe that when that day comes, the way we see developers will be less as capital agents and more akin to city architects and community builders.



## References

- About Thailand Living. 2018. *The Rise of the Rich Thai* [Online]. Available: <http://aboutthailandliving.com/2018/09/19/the-rise-of-the-rich-thai/> [Accessed 3 July 2019].
- Adams, J. E., Highhouse, S. & Zickar, M. J. 2010. Understanding general distrust of corporations. *Corporate Reputation Review*, 13(1), pp. 38-51.
- Addae-Dapaah, K., Hiang, L. K. & Sharon, N. Y. S. 2009. Sustainability of sustainable real property development. *Journal of Sustainable Real Estate*, 1(1), pp. 203-225.
- Aguilera-Caracuel, J., Hurtado-Torres, N. E. & Aragón-Correa, J. A. 2012. Does international experience help firms to be green? A knowledge-based view of how international experience and organisational learning influence proactive environmental strategies. *International Business Review*, 21(5), pp. 847-861.
- Aguinis, H. & Glavas, A. 2013. Embedded versus peripheral corporate social responsibility: Psychological foundations. *Industrial and Organizational Psychology*, 6(4), pp. 314-332.
- Ali, W., Frynas, J. G. & Mahmood, Z. 2017. Determinants of corporate social responsibility (CSR) disclosure in developed and developing countries: A literature review. *Corporate Social Responsibility and Environmental Management*, 24(4), pp. 273-294.
- Allmark, P., Boote, J., Chambers, E., Clarke, A., McDonnell, A., Thompson, A. & Tod, A. M. 2009. Ethical issues in the use of in-depth interviews: literature review and discussion. *Research Ethics*, 5(2), pp. 48-54.
- Alvesson, M. 2013. *Understanding organizational culture*, 2nd edn., London: Sage.
- Amata Corporation. 2018. *AMATA THAILAND: World's Leading Industrial City Developer* [Online]. Amata Corporation PCL. Available: <https://www.amata.com/en/industrial-cities/amata-thailand/> [Accessed 2 July 2019].
- Amonhaemanon, D. 2018. 'The Development and Preliminary Performance Analysis of Thai REITs', 162<sup>nd</sup> The IIER International Conference, Yokohama Japan, 9 -10 May.
- Ang, S. L. & Wilkinson, S. J. 2008. Is the social agenda driving sustainable property development in Melbourne, Australia? *Property management*, 26(5), pp. 331-343.
- Angus-Leppan, T., Metcalf, L. & Benn, S. 2010. Leadership styles and CSR practice: An examination of sensemaking, institutional drivers and CSR leadership. *Journal of Business Ethics*, 93(2), pp. 189-213.
- Andrews, J. 1995. *Enactment* [Online]. The University of Alberta's Cognitive Science Dictionary. Available: <http://penta.ufrgs.br/edu/telelab/3/control.htm> [Accessed 17 November 2020].
- Antal, A. B. & Sobczak, A. 2004. Beyond CSR: organisational learning for global responsibility. *Journal of General Management*, 30(2), pp. 77-98.
- AP (Thailand). ca. 2019. *Baan Klang Muang: Watcharapol* [Online]. Available: <https://www.apthai.com/en/townhome/baan-klang-muang/baanklangmueng-watcharapol> [Accessed 12 July 2019].
- Archer, M., Decoteau, C., Gorski, P., Little, D., Porpora, D., Rutzou, T., Smith, C., Steinmetz, G., & Vandenberghe, F. 2016. *What is critical realism?* Available: <http://www.asatheory.org/current-newsletter-online/what-is-critical-realism> [Accessed 29 May 2020].

- Argote, L. & Miron-Spektor, E. 2011. Organizational learning: From experience to knowledge. *Organization Science*, 22(5), pp. 1123-1137.
- Arksey, H. & O'Malley, L. 2005. Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), pp. 19-32.
- ASEAN UP. 2017. *Infographic: top cities and urbanization in ASEAN* [Online]. Available: <https://aseanup.com/infographic-top-cities-urbanization-asean/> [Accessed 3 July 2019].
- Asheim, G. B. 1994. Sustainability: Ethical Foundations and Economic Properties. The World Bank. Policy Research Working Paper No. 1302.
- Attavanich, W. 2017. Impact of the First-Time Car Buyer Program on the Environmental Cost of Air Pollution in Bangkok. *World Bank's Development Research Group*. Kuala Lumpur, Malaysia.
- Babson College. n.d. *Weick's Model of Organizing* [Online]. Babson College. Available: [http://faculty.babson.edu/krollag/org\\_site/encyclp/weick.html](http://faculty.babson.edu/krollag/org_site/encyclp/weick.html) [Accessed 28 June 2019].
- Baker, S. E. & Edwards, R. 2012. How many qualitative interviews is enough? Expert voices and early career reflections on sampling and cases in qualitative research. Available: [http://eprints.ncrm.ac.uk/2273/4/how\\_many\\_interviews.pdf](http://eprints.ncrm.ac.uk/2273/4/how_many_interviews.pdf) [Accessed 10 July 2019].
- Banerjee, S. B. 2001. Managerial perceptions of corporate environmentalism: Interpretations from industry and strategic implications for organizations. *Journal of Management Studies*, 38(4), pp. 489-513.
- Banerjee, S. B. 2002. Corporate environmentalism: The construct and its measurement. *Journal of Business Research*, 55(3), pp. 177-191.
- Banerjee, S. B., Iyer, E. S. & Kashyap, R. K. 2003. Corporate environmentalism: antecedents and influence of industry type. *Journal of Marketing*, 67(2), pp. 106-122.
- Bangkok Post. 2016. The cold chill of inequality. Available: <https://www.bangkokpost.com/opinion/opinion/1148637/the-cold-chill-of-inequality> [Accessed 3 July 2019].
- Bangkok Post. 2018a. Report: Thailand most unequal country in 2018. Available: <https://www.bangkokpost.com/business/1588786/report-thailand-most-unequal-country-in-2018> [Accessed 3 July 2019].
- Bangkok Post. 2018b. *Housing developers like the look of 2018* [Online]. Bangkok Post. Available: <https://property.bangkokpost.com/news/1428999/housing-developers-like-the-look-of-2018> [Accessed 2 July 2019].
- Bantz, C. R. 1989. Organizing and the social psychology of organizing. *Communication studies*, 40(4), pp. 231-240.
- Baruch, Y. 1999. Response rate in academic studies-A comparative analysis. *Human relations*, 52(4), pp. 421-438.
- Baruch, Y. & Holtom, B. C. 2008. Survey response rate levels and trends in organizational research. *Human relations*, 61(8), pp. 1139-1160.
- Bass, B. M. 1999. Two Decades of Research and Development in Transformational Leadership. *European journal of work and organizational psychology*, 8(1), pp. 9-32.
- Bass, B. M. & Steidlmeier, P. 1999. Ethics, character, and authentic transformational leadership behavior. *Leadership Quarterly*, 10(2), pp 181-217.
- Batson, C. D. 2014. *The altruism question: Toward a social-psychological answer*: Psychology Press.

- Batson, C. D. & Powell, A. A. 2003. Altruism and prosocial behavior. *Handbook of psychology*, pp. 463-484.
- Batt, A. 2015. *Big developers dominate* [Online]. Thailand-Property. Available: <https://www.thailand-property.com/blog/big-developers-dominate> [Accessed 2 July 2019].
- Bazerman, M. H. & Hoffman, A. J. 1999. Sources of environmentally destructive behavior: Individual, organizational and institutional perspectives. *Research in Organizational Behavior*, 21, pp. 39-79.
- BCA. 2019. Green Mark Buildings Directory. Building Construction Authority. Available at: [https://www.bca.gov.sg/green\\_mark/](https://www.bca.gov.sg/green_mark/).
- BCI Asia. 2014. Green Building Market Report South East Asia 2014. Available: [www.bciasia.com/wp-content/uploads/2015/03/Green.Building.Market.Report.2014.pdf](http://www.bciasia.com/wp-content/uploads/2015/03/Green.Building.Market.Report.2014.pdf) [Accessed 30 May 2019].
- Beaverstock, J.V., Chapple, K., Eade, J., Gordon, D.L. and Fainstein, S.S., 2003. Book Reviews: Susan S. Fainstein, *The City Builders: Property Development in New York and London, 1980-2000*, 2d ed. (Lawrence: University of Kansas Press, 2001), *Urban Affairs Review*, 38(4), pp.603-614.
- Berger, P. L. & Luckmann, T. 1991. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, England: Penguin Books. (Original work published 1966).
- Bertalanffy, L. v. 1940. "Der Organismus als physikalisches System betrachtet." *Die Naturwissenschaften*, 28(521-531). Reprinted in *General System Theory. Foundations, Development, Applications*. New York: George Braziller, 1968.
- Bertaux, D. 1981. From the life-history approach to the transformation of sociological practice. *Biography and society: The life history approach in the social sciences*, pp. 29-45.
- Besley, T. and Peters, M.A., 2007. Enterprise Culture and the Rise of the Entrepreneurial Self. *Counterpoints*, 303, pp. 155-174.
- Bishop, M.R. and Kay, J.A., 1989. Privatization in the United Kingdom: lessons from experience. *World Development*, 17(5), pp. 643-657.
- BKKCONDOS. 2013. *Bangkok's Top Property Developers Dominate the Condo Market* [Online]. BKKCONDOS Available: <https://www.bkkcondos.com/Article/Bangkok%E2%80%99s-Top-Property-Developers-Dominate-the-Condo-Market-7099> [Accessed 2 July 2019].
- BMA. 2013. The Bangkok Comprehensive Plan 2013 (B.E.2556), The City Planning Department, Bangkok Metropolitan Administration.
- Boon Rawd Brewery. 2018. *Company Profile*. [Online]. Available: <http://www.boonrawd.co.th/index.php/en/about/profile> [Accessed ca. 2018]
- Bortolotti, B., Fantini, M. and Siniscalco, D., 2001. Privatisation around the world: evidence from panel data. *Journal of public economics*, 88(1-2), pp.305-332.
- Bowen, G. A. 2008. Naturalistic inquiry and the saturation concept: a research note. *Qualitative research*, 8(1), pp. 137-152.
- Bowen, G. A. 2009. Document analysis as a qualitative research method. *Qualitative research journal*, 9(2), pp. 27-40.
- Bowen, H. R. 1953. *Social Responsibilities of the Businessman*, New York: Harper & Brothers.

- Bradley, E.H., Curry, L.A. and Devers, K.J., 2007. Qualitative data analysis for health services research: developing taxonomy, themes, and theory. *Health services research*, 42(4), pp.1758-1772.
- Braun, V. & Clarke, V. 2006. Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), pp. 77-101.
- BRE. ca. 2019. *What is BREEAM?* [Online]. Building Research Establishment. Available: <https://www.breeam.com/> [Accessed 27 June 2019].
- Bree, R.T. and Gallagher, G., 2016. Using Microsoft Excel to code and thematically analyse qualitative data: a simple, cost-effective approach. *AISHE-J: The All Ireland Journal of Teaching and Learning in Higher Education*, 8(2).
- Brønn, P.S. & Vidaver-Cohen, D., 2009. Corporate motives for social initiative: Legitimacy, sustainability, or the bottom line?. *Journal of Business Ethics*, 87(1), pp.91-109.
- Browder, J. O., Bohland, J. R. & Scarpaci, J. L. 1995. Patterns of development on the metropolitan fringe: Urban fringe expansion in Bangkok, Jakarta, and Santiago. *Journal of the American Planning Association*, 61(3), pp. 310-327.
- Brown, A. D. 1995. *Organisational culture*, London: Pitman Publishing.
- Brown, B.J., Hanson, M.E., Liverman, D.M. & Merideth, R.W., 1987. Global sustainability: toward definition. *Environmental management*, 11(6), pp.713-719.
- Brown, P.H., 2015. *How real estate developers think: design, profits, and community*. Philadelphia: University of Pennsylvania Press.
- Brown, S.J. & Liu, C.H. 2001. *A global perspective on real estate cycles*. New York: Springer Science & Business Media.
- Bryman, A. 1988. *Quantity and Quality in Social Research*. London: Unwin Hyman.
- Bryman, A. 2012. Alan Bryman, University of Leicester. In: Baker, S. E. & Edwards, R. (eds.) *How many qualitative interviews is enough? Expert voices and early career reflections on sampling and cases in qualitative research* National Centre for Research Methods.
- Bryman, A., Stephens, M. & à Campo, C. 1996. The importance of context: Qualitative research and the study of leadership. *The Leadership Quarterly*, 7(3), pp. 353-370.
- Buaket, K. & Roonprasang, K. 2017. *Enforcement of Building Energy Code in Thailand* [PowerPoint Presentation]. Global Science, Technology & Innovation Conference (G.STIC), 23-25 October, Brussels. Available at: <https://cdn.nimbu.io/s/gcj6927/channelentries/yn18wj8/files/Mr%20Komol%20Buaket%20Enforcement%20of%20building%20energy%20code%20Thailand.pptx.pdf?sa8km1i>.
- Buchholtz, A. K., Amason, A. C. & Rutherford, M. A. 1999. Beyond resources: The mediating effect of top management discretion and values on corporate philanthropy. *Business & Society*, 38(2), pp. 167-187.
- Byrne, P., Jackson, C. & Lee, S. 2013. Bias or rationality? The case of UK commercial real estate investment. *Journal of European Real Estate Research*, 6(1), pp. 6-33.
- Cabinet Office. 2011. Policy Statement of the Council of Ministers: Delivered by Prime Minister Yingluck Shinawatra to the National Assembly Tuesday 23 August B.E. 2554 (2011). Available: <http://www.eppo.go.th/images/POLICY/ENG/gov-policy-2554-E.pdf> [Accessed 10 July 2019].
- Cadman, D., 2000. The vicious cycle of blame. Cited in: Keeping, M, 2000. *What About Demand – Do Investors Want 'Sustainable Buildings'?*. The RICS Research Foundation.

- Cadman, D. & Topping, R. 2002. *Property development*. London: Taylor & Francis (e-library).
- Cambridge Dictionary. 2020. Sustainability [Online]. Available at: <https://dictionary.cambridge.org/dictionary/english/sustainability> [Accessed 29 October 2020]
- Carroll, A. B. 1999. Corporate Social Responsibility: Evolution of a Definitional Construct. *Business & Society*, 38(3), pp. 268-295.
- Carroll, A. B. 2008. A History of Corporate Social Responsibility: Concepts and practices. In: Crane, A., Matten, D., McWilliams, A., Moon, J. & Siegel, D. (eds.) *The Oxford Handbook of Corporate Social Responsibility*. Oxford: Oxford University Press.
- Carroll, A. B. & Shabana, K. M. 2010. The business case for corporate social responsibility: A review of concepts, research and practice. *International Journal of Management Reviews*, 12(1), pp.85-105.
- Carson, R. 1962. *Silent Spring*, Boston: Houghton Mifflin.
- Cassell, C. & Symon, G. 1997. Qualitative Research in Work Contexts. In: Cassell, C. & Symon, G. (eds.) *Qualitative methods in organizational research: A practical guide*. London: Sage.
- Cassell, C. & Symon, G. 2004. *Essential guide to qualitative methods in organizational research*: Sage.
- Castro, C. J. 2004. Sustainable development: mainstream and critical perspectives. *Organization & Environment*, 17(2), pp. 195-225.
- CBRE-WTW. 2017. 2018 Asia Pacific Real Estate Market Outlook: Malaysia.
- CBRE. 2017a. 2017 Asia Pacific Real Estate Market Outlook: Bangkok. Available: [https://www.cbre.co.th/media/research\\_lang\\_file/2504/Bangkok-Market-Outlook-2017\\_en.pdf](https://www.cbre.co.th/media/research_lang_file/2504/Bangkok-Market-Outlook-2017_en.pdf) [Accessed 26 June 2019].
- CBRE. 2017b. Bangkok Residential: Q1 2017. Available: [https://www.cbre.co.th/media/research\\_lang\\_file/2553/q1\\_17\\_bangkok\\_residential\\_market\\_view.pdf](https://www.cbre.co.th/media/research_lang_file/2553/q1_17_bangkok_residential_market_view.pdf) [Accessed 26 June 2019].
- CBRE Research. 2018. 2018 Asia Pacific Market Outlook: Vietnam. Available: [http://cbrevietnam.com/Publication/Vietnam-Market-Outlook-2018\\_March\\_2018\\_EN.pdf](http://cbrevietnam.com/Publication/Vietnam-Market-Outlook-2018_March_2018_EN.pdf) [Accessed 10 July 2019].
- CBRE Research. 2019. Real Estate Market Outlook 2019: Cambodia. Available: <https://www.cbre.com.kh/wp-content/uploads/2019/04/Cambodia-Real-Estate-Market-Outlook-2019.pdf> [Accessed 10 July 2019].
- CBRE Thailand. 2018a. 2018 Asia Pacific Market Outlook: Bangkok. Available: [https://www.cbre.co.th/media/research\\_lang\\_file/2622/Bangkok Real Estate Market Outlook\\_2018\\_en.pdf](https://www.cbre.co.th/media/research_lang_file/2622/Bangkok_Real_Estate_Market_Outlook_2018_en.pdf) [Accessed 2 July 2019].
- CBRE Thailand. 2018b. *CBRE Thailand: Property search* [Online]. Available: <https://www.cbre.co.th/en/Property/Search/> [Accessed 2018].
- Chamberlain, S.B., 1972. *Aspects of developer behaviour in the land development process*. Toronto: Centre for Urban and Community Studies.
- Chan, A. P. C., Darko, A., Ameyaw, E. E. & Owusu-Manu, D.-G. 2016. Barriers affecting the adoption of green building technologies. *Journal of Management in Engineering*, 33(3)

- Chan, A. P. C., Darko, A., Olanipekun, A. O. & Ameyaw, E. E. 2018. Critical barriers to green building technologies adoption in developing countries: The case of Ghana. *Journal of Cleaner Production*, 172, pp. 1067-1079.
- Chan, E. H. W., Qian, Q. K. & Lam, P. T. I. 2009. The market for green building in developed Asian cities—the perspectives of building designers. *Energy Policy*, 37(8), pp. 3061-3070.
- Chan, S.H., Erickson, J. and Wang, K., 2003. *Real estate investment trusts: Structure, performance, and investment opportunities*. New York: Oxford University Press.
- Chandran, R. 2018. *Anger over land rights spills into street protests in Thailand* [Online]. Available: <https://www.reuters.com/article/us-thailand-landrights-protests-analysis/anger-over-land-rights-spills-into-street-protests-in-thailand-idUSKCN1H01E> [Accessed 15 June 2020].
- Chapple, W. & Moon, J. 2005. Corporate social responsibility (CSR) in Asia: A seven-country study of CSR web site reporting. *Business & Society*, 44(4), pp. 415-441.
- Chapple, W. & Moon, J. 2007. CSR agendas for Asia. *Corporate Social Responsibility and Environmental Management*, 14(4), pp. 183-188.
- Charmaz, K. 2006. *Constructing grounded theory: A practical guide through qualitative analysis*, London: Sage.
- Child, J. 1972. Organizational structure, environment and performance: The role of strategic choice. *sociology*, 6(1), pp. 1-22.
- Chirattananon, S., Chaiwattworakul, P., Hien, V., Rugkwamsuk, P. & Kubaha, K. 2006. Revised Building Energy Code of Thailand: Potential energy and power demand savings. *Conference on Energy Network of Thailand* (การประชุมเชิงวิชาการเครือข่ายพลังงานแห่งประเทศไทย ครั้งที่ 2). Nakhon Ratchasima, Thailand.
- Chirattananon, S., Chaiwattworakul, P., Hien, V. D., Rakkwamsuk, P. & Kubaha, K. 2010. Assessment of energy savings from the revised building energy code of Thailand. *Energy*, 35(4), pp. 1741-1753.
- Chompookum, D. & Derr, C. B. 2004. The effects of internal career orientations on organizational citizenship behavior in Thailand. *Career Development International*, 9(4), pp. 406-423.
- Chowdhury, R., 2019. Embarking on research in the social sciences: Understanding the foundational concepts. *VNU Journal of Foreign Studies*, 35(1).
- Claydon, J. and Smith, B., 1997. Negotiating planning gains through the British development control system. *Urban studies*, 34(12), pp. 2003-2022.
- Cohen, D. & Crabtree, B. 2006. Qualitative research guidelines project [Online]. Available at: [https://sswm.info/sites/default/files/reference\\_attachments/COHEN%202006%20Semistructured%20Interview.pdf/](https://sswm.info/sites/default/files/reference_attachments/COHEN%202006%20Semistructured%20Interview.pdf/) [Accessed 18 November 2020].
- Coiacetto, E. 2000. Places shape place shapers? Real estate developers' outlooks concerning community, planning and development differ between places. *Planning Practice and Research*, 15(4), pp.353-374.
- Coiacetto, E. 2001. Diversity in real estate developer behaviour: A case for research. *Urban Policy and Research*, 19(1), pp. 43-59.
- Coiacetto, E., 2009. Industry structure in real estate development: is city building competitive?. *Urban Policy and Research*, 27(2), pp.117-135.
- Collins, M., Shattell, M., & Thomas, S.P. 2005. An exploration of problematic interviewee behaviors in qualitative research. *Western Journal of Nursing Research*, 27, pp. 188-199.

- Connelly, S., 2007. Mapping sustainable development as a contested concept. *Local environment*, 12(3), pp.259-278.
- Corben, R. 2017. *Luxury condos are luring Asia's superwealthy to Bangkok* [Online]. Financial Times. Available: <https://www.ft.com/content/909f8d7a-161e-11e7-80f4-13e067d5072c> [Accessed 8 July 2019].
- Corlett, S. & Mavin, S. 2017. Reflexivity and researcher positionality. *The SAGE Handbook of Qualitative Business and Management Research Methods: History and Traditions*, pp.377-399.
- Coulondre, A. & Jacobs, A., 2017. How property developers turn a profit. *Revue française de sociologie*, 58(1), pp.41-69.
- Cycyota, C. S. & Harrison, D. A. 2006. What (not) to expect when surveying executives: A meta-analysis of top manager response rates and techniques over time. *Organizational Research Methods*, 9(2), pp. 133-160.
- Dahlsrud, A., 2008. How corporate social responsibility is defined: an analysis of 37 definitions. *Corporate social responsibility and environmental management*, 15(1), pp.1-13.
- Dalkir, K. 2005. *Knowledge management in theory and practice*, Oxford: Elsevier Butterworth-Heinemann.
- Danermark, B., Ekström, M. and Karlsson, J.C., 2019. *Explaining society: Critical realism in the social sciences*, 2nd edn., Abingdon, Oxon ; New York, NY: Routledge.
- Darko, A. & Chan, A. P. C. 2017. Review of barriers to green building adoption. *Sustainable Development*, 25(3), pp. 167-179.
- Daly, H.E., 1990. Sustainable growth: A bad oxymoron. *Journal of Environmental Science & Health Part C*, 8(2), pp. 401-407.
- Davis, K., Drey, N. & Gould, D. 2009. What are scoping studies? A review of the nursing literature. *International Journal of Nursing Studies*, 46(10), pp. 1386-1400.
- Deakin, N. and Edwards, J., 2005. *The enterprise culture and the inner city*. London: Routledge.
- DeCuir-Gunby, J. T., Marshall, P. L. & McCulloch, A. W. 2011. Developing and using a codebook for the analysis of interview data: An example from a professional development research project. 23(2), pp. 136-155.
- Delmas, M. A. & Burbano, V. C. 2011. The drivers of greenwashing. *California Management Review*, 54(1), pp. 64-87.
- Demaria, F. & Kothari, A., 2017. The Post-Development Dictionary agenda: paths to the pluriverse. *Third World Quarterly*, 38(12), pp. 2588-2599.
- Demaria, F., Schneider, F., Sekulova, F. and Martinez-Alier, J., 2013. What is degrowth? From an activist slogan to a social movement. *Environmental Values*, 22(2), pp. 191-215.
- DGNB. 2019. DGNB pre-certified and certified projects. DGNB System. Available at: <https://www.dgnb-system.de/en/projects/index.php>.
- Dhanananphorn, M., Jittapong, K., & Dwivedi, A. 2015. *Two Thai property developers plan REIT listings* [Online]. Available: <https://www.reuters.com/article/thailand-property-reit/two-thai-property-developers-plan-reit-listings-idUSL3N0US20B20150113> [Accessed 15 June 2020].
- Dibb, S. & Wensley, R., 1987. Energy efficient house design: the analysis of customer choice. In MEG Conference Proceedings.

- Dick, H. W. & Rimmer, P. J. 1998. Beyond the third world city: the new urban geography of South-east Asia. *Urban Studies*, 35(12), pp. 2303-2321.
- Diekmann, A. & Franzen, A. 1999. The wealth of nations and environmental concern. *Environment and Behavior*, 31(4), pp. 540-549.
- Dietrich, C., 2010. Decision making: Factors that influence decision making, heuristics used, and decision outcomes. *Inquiries Journal*, 2(02), pp. 1-3.
- Djokoto, S. D., Dadzie, J. & Ohemeng-Ababio, E. 2014. Barriers to sustainable construction in the Ghanaian construction industry: consultants perspectives. *Journal of Sustainable Development*, 7(1), pp. 134-143.
- Dodd, S.D. and Anderson, A.R., 2001. Understanding the enterprise culture paradigm: Paradox and policy. *The International Journal of Entrepreneurship and Innovation*, 2(1), pp. 13-26.
- Dodge Data & Analytics. 2018. Smart Market Report: World Green Building Trends 2018, Analytics, D. D. (Bedford, MA).
- Durdyev, S., Zavadskas, E., Thurnell, D., Banaitis, A. & Ihtiyar, A. 2018. Sustainable construction industry in Cambodia: Awareness, drivers and barriers. *Sustainability*, 10(2), p.392.
- Dworkin, S. L. 2012. Sample size policy for qualitative studies using in-depth interviews. Springer.
- Egri, C. P. & Herman, S. 2000. Leadership in the North American environmental sector: Values, leadership styles, and contexts of environmental leaders and their organizations. *Academy of Management*, 43(4), pp. 571-604.
- Emery, F. E. & Trist, E. L. 1965. The causal texture of organizational environments. *Human relations*, 18(1), pp. 21-32.
- EnCo. 2017. *About EnCo: Awards and Certifications - LEED Platinum Standards for Core&Shell Version 2.0* [Online]. EnergyComplex. Available: <https://www.energycomplex.co.th/en/About/Award> [Accessed 12 July 2019].
- EPA. 2016. *Green Building* [Online]. Available: <https://archive.epa.gov/greenbuilding/web/html/about.html> [Accessed 27 June 2019].
- Evans, P. B. 2002. *Livable Cities?: Urban Struggles for Livelihood and Sustainability*: University of California Press.
- Farlex Financial Dictionary. (2009). 'Economic Actor'. Available: <https://financial-dictionary.thefreedictionary.com/Economic+Actors> [Accessed 11 May 2020].
- Fainstein, S.S. 2001. *The City Builders: Property, Politics, and Planning in London and New York*. Oxford: Blackwell.
- Feder, G., 1987. Land ownership security and farm productivity: evidence from Thailand. *The Journal of Development Studies*, 24(1), pp.16-30.
- Feder, G. & Onchan, T., 1987. Land ownership security and farm investment in Thailand. *American Journal of Agricultural Economics*, 69(2), pp. 311-320.
- Fereday, J. & Muir-Cochrane, E. 2006. Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International journal of qualitative methods*, 5(1), pp. 80-92.



- Find Thai Property. 2016. *Bangkok: Public Listed Real Estate Developers Dominating The Market* [Online]. Available: <https://www.findthaiproperty.com/thailand-investment-news/bangkok-real-estate-developers/> [Accessed 2 July 2019].
- Fisher, P. & Robson, S. 2006. The perception and management of risk in UK office property development. *Journal of Property Research*, 23(2), pp. 135-161.
- Fontaine, M. 2013. Corporate social responsibility and sustainability: the new bottom line? *International Journal of Business and Social Science*, 4(4).
- Forbes. 2020. *Thailand's 50 Richest*. [Online]. Available: <https://www.forbes.com/thailand-billionaires/list/#tab:overall> [Accessed 15 June 2020].
- Forster, N. 1994. The Analysis of Company Documentation. In: Cassell, C. & Symon, G. (eds.) *Qualitative Methods in Organizational Research: A Practical Guide*. London: Sage Publications.
- Fraj-Andrés, E., Martínez-Salinas, E. & Matute-Vallejo, J. 2009. Factors affecting corporate environmental strategy in Spanish industrial firms. *Business Strategy and the Environment*, 18(8), pp. 500-514.
- Friedman, M. 1962. *Capitalism and freedom*, Chicago: University of Chicago press.
- Friedman, M. 1970. The Social Responsibility of Business is to Increase its Profits. September 13, 1970. Available: <http://www.umich.edu/~thecore/doc/Friedman.pdf> [Accessed 8 July 2019].
- Funatsu, T. & Kagoya, K. 2003. The middle classes in Thailand: The rise of the urban intellectual elite and their social consciousness. *The Developing Economies*, 41(2), pp. 243-263.
- Furlow, N. E. 2010. Greenwashing in the new millennium. *The Journal of Applied Business Economics*, 10(6), p. 22.
- Furnham, A. 1999. *The psychology of behaviour at work: The individual in the organization*, Hove: Psychology Press.
- Gamerschlag, R., Möller, K. & Verbeeten, F. 2011. Determinants of voluntary CSR disclosure: empirical evidence from Germany. *Review of Managerial Science*, 5(2-3), pp. 233-262.
- GBIG. 2020. *Explore Green Buildings: Discover Leaders - Share Success* [Online]. Green Building Information Gateway. Available: <http://www.gbig.org/> [Accessed 18 November 2020].
- Gehner, E., Halman, J. I. M. & De Jonge, H. 2006. Risk management in the Dutch real estate development sector: a survey. 6th International Postgraduate Research Conference.
- Giddens, A. 1984. *The constitution of society: Outline of the theory of structuration*. Berkeley: University of California Press.
- Goldblum, C. & Wong, T.C. 2000. Growth, crisis and spatial change: a study of haphazard urbanisation in Jakarta, Indonesia. *Land Use Policy*, 17(1), pp. 29-37.
- Golden Ventures. 2015a. *Park Ventures: World premier business landmark* [Online]. Golden Ventures Leasehold Real Estate Investment Trust. Available: <http://www.park-ventures.com/home/> [Accessed 3 July 2019].
- Golden Ventures. 2015b. *Park Ventures Ecoplex: Overview* [Online]. Available: <http://www.park-ventures.com/overview/index.php> [Accessed 8 July 2019].
- Gough, I. 2017. *Heat, greed and human need: Climate change, capitalism and sustainable wellbeing*. Cheltenham: Edward Elgar Publishing.

- Grand Canal Land. 2013a. *The Super Tower: The ASEAN's Tallest Building* [Online]. Available: [http://www.grandcanalland.com/en/commercial\\_thesupertower.php](http://www.grandcanalland.com/en/commercial_thesupertower.php) [Accessed 3 July 2019].
- Grand Canal Land. 2013b. *Unilever House* [Online]. Available: [http://www.grandcanalland.com/en/commercial\\_UPlace.php](http://www.grandcanalland.com/en/commercial_UPlace.php) [Accessed 12 July 2019].
- Green, J. & Thorogood, N. 2018. *Qualitative methods for health research*. Los Angeles: Sage.
- Green, S. 2009. The evolution of corporate social responsibility in construction: defining the parameters. In: Murray, M. & Dainty, A. (eds.) *Corporate Social Responsibility in the Construction Industry*. Abingdon, Oxon: Taylor & Francis.
- Guest, G., Bunce, A. & Johnson, L. 2006. How many interviews are enough? An experiment with data saturation and variability. *Field methods*, 18(1), pp. 59-82.
- Gulbrandson, A. 2016. The greening of Bangkok's commercial real estate. Available: <https://www.bangkokpost.com/business/news/1153701/the-greening-of-bangkoks-commercial-real-estate> [Accessed 30 May 2019].
- Guy, S. & Henneberry, J. 2000. Understanding urban development processes: integrating the economic and the social in property research. *Urban studies*, 37(13), pp. 2399-2416.
- Guy, S. & Henneberry, J. 2002. *Development and developers: perspectives on property*, Oxford: Blackwell Science.
- Häkkinen, T. & Belloni, K. 2011. Barriers and drivers for sustainable building. *Building Research & Information*, 39(3), pp. 239-255.
- Haldi, F. & Robinson, D. 2011. The impact of occupants' behaviour on building energy demand. *Journal of Building Performance Simulation*, 4(4), pp. 323-338.
- Hambrick, D. C. & Mason, P. A. 1984. Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2), pp. 193-206.
- Hannan, M. T. & Freeman, J. 1984. Structural inertia and organizational change. *American Sociological Review*, 49(2), pp. 149-164.
- Hardin, G. 1968. The tragedy of the commons. *Science*, 162, pp. 1243-1248.
- Hartley, J. F. 1994. Case studies in Organizational Research. In: Cassell, C. & Symon, G. (eds.) *Qualitative methods in organizational research: A practical guide*. London: Sage.
- Hartzell, S. 2012. *Mechanistic & Organic Organizational Business Structures*. [Online]. Available: <https://study.com/academy/lesson/bureaucratic-organizations-mechanic-organic-bureacracies.html> [Accessed 15 June 2020].
- Hatch, M. J. & Cunliffe, A. L. 2006. *Organization theory: modern, symbolic, and postmodern perspectives*, 2nd edn., Oxford: Oxford University Press.
- Hays, J. 2008. *Rich, Middle Class and Poor in Thailand* [Online]. Available: [http://factsanddetails.com/southeast-asia/Thailand/sub5\\_8c/entry-3229.html](http://factsanddetails.com/southeast-asia/Thailand/sub5_8c/entry-3229.html) [Accessed 3 July 2019].
- Healey, P. 1991. Models of the development process: a review. *Journal of property research*, 8(3), pp.219-238.
- Healey, P. 1992. An institutional model of the development process. *Journal of property research*, 9(1), pp. 33-44.

- Healey, P. & Barrett, S.M., 1990. Structure and agency in land and property development processes: some ideas for research. *Urban studies*, 27(1), pp. 89-103.
- Heikkurinen, P., Rinkinen, J., Järvensivu, T., Wilén, K. & Ruuska, T. 2016. Organising in the Anthropocene: an ontological outline for ecocentric theorising. *Journal of Cleaner Production*, 113, pp. 705-714.
- Hill, T. 2017. Why has Asia been slow to catch on to green buildings?. Available: <https://www.eco-business.com/news/why-has-asia-been-slow-to-catch-on-to-green-buildings/> [Accessed 30 May 2019].
- Hines, J. M., Hungerford, H. R. & Tomera, A. N. 1987. Analysis and synthesis of research on responsible environmental behavior: A meta-analysis. *The Journal of environmental education*, 18(2), pp. 1-8.
- Ho, P. H. K. 2014. An exploratory study of the impact of organisational environments on property development firms. *Journal of Financial Management of Property*, 19(3), pp. 226-245.
- Hockerts, K., 2015. A cognitive perspective on the business case for corporate sustainability. *Business Strategy and the Environment*, 24(2), pp.102-122.
- Hoffman, A. J. 2001. *From heresy to dogma: An institutional history of corporate environmentalism*, Expanded ed., Stanford, California: Stanford University Press.
- Hoffman, A. J., Badiane, K. K. & Haigh, N. 2012. Hybrid organizations as agents of positive social change: Bridging the for-profit and non-profit divide. *Using a positive lens to explore social change and organizations*. Routledge.
- Hoffman, A. J. & Bazerman, M. H. 2005. Changing environmental practice: understanding and overcoming the organizational and psychological barriers. *Working Paper No. 923*. Ross School of Business: University of Michigan.
- Hoffman, A. J. & Bazerman, M. H. 2007. Changing practice on sustainability: Understanding and overcoming the organizational and psychological barriers to action. In: Sharma, S., Starik, M. & Husted, B. (eds.) *Organizations and the Sustainability Mosaic: Crafting Long-term Ecological and Societal Solutions (New perspectives in research on corporate sustainability)*. Cheltenham, UK: Edward Elgar Publishing.
- Hoffman, A. J. & Henn, R. 2008. Overcoming the social and psychological barriers to green building. *Organization & Environment*, 21(4), pp. 390-419.
- Hoffman, A. J. & Jennings, P. D. 2012. The social and psychological foundations of climate solutions. *Solutions*, 3, pp. 58-65.
- Holmes, A. 2014. Researcher positionality: A consideration of its influence and place in research. Available: [https://www.researchgate.net/publication/260421552\\_Researcher\\_positionality\\_-\\_a\\_consideration\\_of\\_its](https://www.researchgate.net/publication/260421552_Researcher_positionality_-_a_consideration_of_its) [Accessed 3 July 2019].
- Hong, T. T. 2013. Determinants of intention to inhabit eco-friendly homes in Malaysia. *Journal of Green Building*, 8(4), pp. 146-163.
- Hong, T., Taylor-Lange, S. C., D'Oca, S., Yan, D. & Corngati, S. P. 2016. Advances in research and applications of energy-related occupant behavior in buildings. *Energy and buildings*, 116, pp.694-702.
- Hostetler, M. & Noiseux, K. 2010. Are green residential developments attracting environmentally savvy homeowners? *Landscape and Urban Planning*, 94(3-4), pp. 234-243.
- Hughes, W. P. 1989. Identifying the environments of construction projects. *Construction Management Economics*, 7(1), pp. 29-40.

- Hwang, B. G. & Tan, J. S. 2012. Green building project management: obstacles and solutions for sustainable development. *Sustainable development*, 20(5), pp. 335-349.
- IPCC 2014. Buildings. In: Lucon O., D., Ürge-Vorsatz, A., Zain Ahmed, H., Akbari, P., Bertoldi, L. F., Cabeza, N., Eyre, A., Gadgil, L. D. D., Harvey, Y., Jiang, E., Liphoto, S., Mirasgedis, S., Murakami, J., Parikh, C. P. & Vilariño, M. V. (eds.) *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel and J.C. Minx (eds.)]*. Available at: [https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc\\_wg3\\_ar5\\_chapter9.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter9.pdf). Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- Janda, K. B. 2011. Buildings don't use energy: people do. *Architectural science review*, 54(1), pp.15-22.
- Joffe, H. 2012. Thematic Analysis. In: Harper, D. & Thompson, A. (eds.) *Qualitative Research Methods in Mental Health and Psychotherapy: A Guide for Students and Practitioners*. Chichester: Wiley-Blackwell.
- Joffe, H. & Yardley, L. 2004. Content and thematic analysis. In: Marks, D. F. & Yardley, L. (eds.) *Research methods for clinical and health psychology*. London: Sage.
- Johns, G. 2006. The essential impact of context on organizational behavior. *Academy of Management Review*, 31(2), pp. 386-408.
- Kallis, G., 2015. The degrowth alternative. *Great Transition Initiative*, pp.1-6.
- Katharangsiporn, K. 2016. Prukha cuts construction time. *Bangkok Post*, 27 June 2016. [Online]. Available: <https://www.bangkokpost.com/business/1020809/prukha-cuts-construction-time> [Accessed 16 June 2020].
- Katharangsiporn, K. 2017. New Faces: Foreigners can't resist the lure of bargain-priced Thai housing. *Bangkok Post*, 31 July 2017. [Online]. Available: <https://www.pressreader.com/thailand/bangkok-post/20170731/283102774128870> [Accessed 16 June 2020].
- Katz, D. & Kahn, R. L. 1966. *The Social Psychology of Organisations*, 2nd edn., New York: Wiley.
- Keeping, M. & Shiers, D., 2004. *Sustainable Property Development: A guide to real estate and the environment*. Oxford: Blackwell Science.
- Kelly, D. & Amburgey, T. L. 1991. Organizational inertia and momentum: A dynamic model of strategic change. *Academy of Management*, 34(3), pp. 591-612.
- Kemp, J.H., 1981. Legal and informal land tenures in Thailand. *Modern Asian Studies*, 15(1), pp.1-23.
- Khumpaisal, S. & Chen, Z. 2010. Risks assessment in real estate development: an application of analytic network process. *Journal of Architectural. Planning Research Studies*, 7, pp. 1-24.
- Kibert, C. J. 2008. *Sustainable construction: green building design and delivery*, 2nd edn., Hoboken, N.J.: John Wiley & Sons.
- King, N. 1994. The qualitative research interview. In: Cassell, C. & Symon, G. (eds.) *Qualitative methods in organizational research: A practical guide*. London: Sage.
- King, N. 2004. Using Interviews in Qualitative Research. In: Cassell, C. & Symon, G. (eds.) *Essential guide to qualitative methods in organizational research*. London: Sage.

- Klinmalai, S. 2014. *Effect Evaluation of Gated Housing Projects Accumulated in Suburban Residential Areas of Bangkok Metropolitan Region*. Doctoral Dissertation, Kyoto University (京都大学).
- Kollmuss, A. & Agyeman, J. 2002. Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research*, 8(3), pp.239-260.
- Kongcheep, S. 2017. Have foreign buyers discovered Thai market? As more Chinese tourists and investors flock to the kingdom, developers see great potential for condominium sales, *Bangkok Post*, 9 April 2017. [Online]. Available: <https://www.bangkokpost.com/business/1229584/have-foreign-buyers-discovered-thai-market-> [Accessed 13 November 2020].
- Kongcheep, S. 2018. Foreign developers in Thailand: Japanese and Chinese investors are seeking opportunities in the local residential market. *Bangkok Post*, 28 June 2018. [Online]. Available: <https://www.bangkokpost.com/business/1493706/foreign-developers-in-thailand> [Accessed 16 June 2020].
- Kongcheep, S. 2019. Condo joint ventures trending: Japanese firms are leading the way, but Chinese interest is escalating. *Bangkok Post*, 3 May 2019. [Online]. Available: <https://www.bangkokpost.com/business/1671300/condo-joint-ventures-trending> [Accessed 16 June 2020].
- Kongmalai, B. 2015. A Study on Condominium Market Situation in Bangkok Thailand. Proceedings of the International Conference On Advances In Economics, Social Science and Human Behaviour Study, Bangkok. Institute of Research Engineers and Doctors, USA.
- Korkmaz, S., Erten, D., Syal, M. & Potbhare, V. 2009. A review of green building movement timelines in developed and developing countries to build an international adoption framework. Proceedings of Fifth International Conference on Construction in the 21st Century: Collaboration and Integration in Engineering, Management and Technology.
- Kriss, J. 2014. *From a simple idea to a several-hundred-billion-dollar industry* [Online]. USGBC. Available: <https://www.usgbc.org/articles/simple-idea-several-hundred-billion-dollar-industry> [Accessed 27 June 2019].
- Kunze, C. & Becker, S. 2015. Collective ownership in renewable energy and opportunities for sustainable degrowth. *Sustainability Science*, 10(3), pp. 425-437.
- Kurucz, E. C., Colbert, B. A. & Wheeler, D. 2008. The Business Case for Corporate Social Responsibility. In: Crane, A., Matten, D., McWilliams, A., Moon, J. & Siegel, D. (eds.) *The Oxford Handbook of Corporate Social Responsibility*. Oxford: Oxford University Press.
- Kuvijitruwan, R. 2018. Raising funds from the rising sun. *Bangkok Post*, 10 January 2018. [Online]. Available: <https://www.bangkokpost.com/business/1392962/raising-funds-from-the-rising-sun> [Accessed 15 June 2020].
- Lambin, J.-J. 2009. Capitalism and sustainable development. *Symphonya. Emerging Issues in Management*, 2, pp. 3-9.
- Land and Houses. 2017a. *Company Profile* [Online]. Land and Houses PCL. Available: [http://lh.listedcompany.com/corporate\\_information.html](http://lh.listedcompany.com/corporate_information.html) [Accessed 7 July 2019].
- Land and Houses. 2017b. *Villaggio Srinakarin-Bangna* [Online]. Land and Houses PCL. Available: <https://www.lh.co.th/en/singlehome/Villaggio-Srinakarin-Bangna> [Accessed 17 November 2020].
- Land and Houses. 2017c. *Villaggio Rangsit Khlong 2* [Online]. Land and Houses PCL. Available: <https://www.lh.co.th/en/singlehome/project/Villaggio-Rangsit-Khlong-2/1> [Accessed 8 July 2019].

- Landrum, N.E., 2018. Stages of corporate sustainability: Integrating the strong sustainability worldview. *Organization & Environment*, 31(4), pp. 287-313.
- Languepin, O. 2017. *SET begins listing of TREIT, the biggest industrial REIT in Thailand*. [Online]. Available: <https://www.thailand-business-news.com/investment/66891-set-begins-listing-treit-biggest-industrial-reit-thailand.html> [Accessed 15 June 2020].
- Latouche, S. 2009. *Farewell to Growth*. London: Polity.
- Lauridsen, L.S., 1998. The financial crisis in Thailand: causes, conduct and consequences?. *World Development*, 26(8), pp.1575-1591.
- Lawrence, P. R. & Lorsch, J. W. 1967. *Organization and environment: Managing differentiation and integration*, Boston: Harvard University.
- Lee, S. J. 1992. Quantitative versus qualitative research methods—Two approaches to organisation studies. *Asia Pacific Journal of Management*, 9(1), pp. 87-94.
- Lenssen, G., Arenas, D., Lacy, P., Pickard, S. and Albareda, L., 2008. Corporate responsibility, governance and accountability: from self-regulation to co-regulation. *Corporate Governance: The international journal of business in society*.
- Lietaert, M. 2010. Cohousing's relevance to degrowth theories. *Journal of Cleaner Production*, 18(6), pp. 576-580.
- Lindsay, S. 2019. *Thailand's wealth inequality is the highest in the world: What will this mean for the upcoming elections?* [Online]. ASEAN Today. Available: <https://www.aseantoday.com/2019/01/thailands-wealth-inequality-is-the-highest-in-the-world-what-does-this-mean-for-upcoming-elections/> [Accessed 3 July 2019].
- Liu, J. Y., Low, S. P. & He, X. 2012. Green practices in the Chinese building industry: drivers and impediments. *Journal of Technology Management in China*, 7(1), pp. 50-63.
- Liu, Y., Hong, Z., Zhu, J., Yan, J., Qi, J. & Liu, P. 2018. Promoting green residential buildings: Residents' environmental attitude, subjective knowledge, and social trust matter. *Energy Policy*, 112, pp. 152-161.
- Loizou, P. & French, N. 2012. Risk and uncertainty in development: A critical evaluation of using the Monte Carlo simulation method as a decision tool in real estate development projects. *Journal of Property Investment & Finance*, 30(2), pp. 198-210.
- Lovins, A.B., Lovins, L.H. and Hawken, P., 2005. A road map for natural capitalism. In: Lucas, M. (ed). *Understanding Business: Environments*. Routledge (Taylor & Francis e-Library).
- L.P.N. Development. 2016. *LPN กับหลักการพัฒนายั่งยืน* [LPN on Principles for Sustainable Development] [Online]. Available: <https://www.lpn.co.th/en/sustainability>
- LSE Cities. 2017. *Towards Urban Growth Analytics for Yangon: A comparative information base for strategic spatial development*, LSE Cities.
- Luke, T. W. 2001. Education, environment and sustainability: what are the issues, where to intervene, what must be done? *Educational Philosophy and Theory*, 33(2), pp. 187-202.
- Manotham, P. 2010. *Bangkok Urban Dynamics and Housing Market*. Master of Science Thesis, KTH Architecture and the Built Environment.
- Marriott, O., 1989. *The Property Boom*. London: Abingdon Publishing.
- Maslow, A. H. 1943. A theory of human motivation. *Psychological review*, 50(4), p. 370.

- Maslow, A. H., Stephens, D. C., Heil, G. & Bennis, W. 1998. *Maslow on management*: John Wiley New York.
- Mason, M. 2010. Sample size and saturation in PhD studies using qualitative interviews. *Forum qualitative Sozialforschung/Forum: qualitative social research*.
- Masoso, O. & Grobler, L. J. 2010. The dark side of occupants' behaviour on building energy use. *Energy and buildings*, 42(2), pp. 173-177.
- Massey, D. & Catalano, A. 1978. *Capital and Land: Landownership by Capital in Great Britain*. London: Edward Arnold.
- Matten, D. & Moon, J. 2008. "Implicit" and "explicit" CSR: A conceptual framework for a comparative understanding of corporate social responsibility. *Academy of Management Review*, 33(2), pp.404-424.
- Mawhinney, M., 2002. *Sustainable development: Understanding the green debates*. Oxford:Blackwell Science
- Meadows, D. H., Meadows, D. L., Randers, J. & Behrens, W. W. 1972. *The Limits to Growth*.. New York: Universe Books.
- Meinhardt Group. 2017. *98 Wireless LEED Certified* [Online]. Available: <https://www.meinhardt.net/news/98-wireless-leed-certified/> [Accessed 16 June 2020].
- Menon, A. & Menon, A. 1997. Enviropreneurial marketing strategy: the emergence of corporate environmentalism as market strategy. *Journal of Marketing*, 61(1), pp. 51-67.
- Metcalf, L. & Benn, S., 2013. Leadership for sustainability: An evolution of leadership ability. *Journal of business ethics*, 112(3), pp. 369-384.
- Meyers, R. J., Williams, E. D. & Matthews, H. S. 2010. Scoping the potential of monitoring and control technologies to reduce energy use in homes. *Energy and Buildings*, 42(5), pp. 563-569.
- Miles, R. E., Snow, C. C., Meyer, A. D. & Coleman Jr, H. J. 1978. Organizational strategy, structure, and process. *Academy of management review*, 3(3), pp. 546-562.
- Milliken, F. J. 1987. Three Types of Perceived Uncertainty about the Environment: State, Effect, and Response Uncertainty. *The Academy of Management Review*, 12(1), pp. 133-143.
- Mintzberg, H. 1973. *The Nature of Managerial Work*, New York: Harper & Row.
- Mongsawad, P. 2012. The philosophy of the sufficiency economy: a contribution to the theory of development. *Asia-Pacific Development Journal*, 17(1), pp. 123-143.
- Moon, K. and Blackman, D., 2014. A guide to understanding social science research for natural scientists. *Conservation Biology*, 28(5), pp.1167-1177.
- Moore, R. D. 2015. Gentrification and displacement: The impacts of mass transit in Bangkok. *Urban Policy and Research*, 33(4), pp. 472-489.
- Moore, R. D. 2018. *Condominium development and gentrification in Bangkok, Thailand: a study of housing pathways*. PhD Thesis, Sheffield Hallam University. Available: [http://shura.shu.ac.uk/24083/1/Moore\\_2019\\_PHD\\_CondominiumDevelopmentAnd.pdf](http://shura.shu.ac.uk/24083/1/Moore_2019_PHD_CondominiumDevelopmentAnd.pdf) [Accessed 1 July 2020].
- Morgan, F. 2010. *Residential property developers in urban agent-based models: Competition, behaviour and the resulting spatial landscape*. PhD Thesis (Doctor of Philosophy in Geography), University of Auckland.

- Morgan, G. & Smircich, L. 1980. The case for qualitative research. *Academy of management review*, 5(4), pp. 491-500.
- Morse, J. M. 1995. *The significance of saturation*. Thousand Oaks, CA.: Sage.
- Mukhija, V. 2004. The contradictions in enabling private developers of affordable housing: a cautionary case from Ahmedabad, India. *Urban Studies*, 41(11), pp. 2231-2244.
- Mullins, L. J. & Christy, G. 2016. *Management and organisational behaviour*, 11th edn., Harlow, England: Pearson Education.
- Murray, M. & Dainty, A. 2009. *Corporate social responsibility in the construction industry*, Abingdon, Oxon: Taylor & Francis.
- Nguyen, A. 2019. *Asia's Best REITs May Lose Appeal as Rally Trims Thai Yields*. [Online]. Available: <https://www.bloomberg.com/news/articles/2019-10-14/asia-s-best-reits-may-lose-appeal-as-rally-trims-thai-yields> [Accessed 15 June 2020].
- Nguyen, H.-T., Skitmore, M., Gray, M., Zhang, X. & Olanipekun, A. O. 2017. Will green building development take off? An exploratory study of barriers to green building in Vietnam. *Resources, Conservation and Recycling*, 127, pp. 8-20.
- Noor, K. B. M. 2008. Case study: A strategic research methodology. *American journal of applied sciences*, 5(11), pp. 1602-1604.
- NSO. 2010. 2010 Population and Housing Census. Thailand: National Statistical Office, Ministry of Information and Communication Technology. Available: [http://web.nso.go.th/en/census/poph/2010/data/bkk\\_1\\_Executive.pdf](http://web.nso.go.th/en/census/poph/2010/data/bkk_1_Executive.pdf) [Accessed 9 November 2020]
- NSO. 2013. The 2012 Construction Area. National Statistical Office, Ministry of Information and Communication Technology.
- Olubunmi, O.A., Xia, P.B. & Skitmore, M., 2016. Green building incentives: A review. *Renewable and Sustainable Energy Reviews*, 59, pp. 1611-1621.
- Onwuegbuzie, A.J. & Leech, N.L., 2007. Validity and qualitative research: An oxymoron?. *Quality & quantity*, 41(2), pp. 233-249.
- Open Development Thailand (ODT). 2016. *Land* [Online]. Available: <https://thailand.opendevopmentmekong.net/topics/land/> [Accessed 15 June 2020].
- Origin Property. ca. 2019. *Tropicana: Eco Green Condon @ BTS ERAWAN* [Online]. [Accessed 12 July 2019].
- OSU. 2014. *What Is Environmental Literacy?* [Online]. Oregon State University. Available: <http://oelp.oregonstate.edu/oelp-plan/what-environmental-literacy> [Accessed 8 July 2019].
- PACE Development Corporation. n.d. *PACE appoints Bouygues-Thai as Main Contractor for Thailand's Tallest Building* [Online]. Available: [http://pacedev.com/news/full/pace\\_appoints\\_bouygues\\_thai\\_as\\_main\\_contractor\\_for\\_thailand\\_s\\_tallest\\_buildi](http://pacedev.com/news/full/pace_appoints_bouygues_thai_as_main_contractor_for_thailand_s_tallest_buildi) [Accessed 16 June 2020].
- PACE Development Corporation. 2016. *Nimit Langsuan: Where the future resides* [Online]. Available: <http://www.nimitlangsuan.com/> [Accessed 8 July 2019].
- PACE Development Corporation. 2017. *Annual Report 2017*. PACE Development Corporation PCL.



- Pacheco, D. F., Dean, T. J. & Payne, D. S. 2010. Escaping the green prison: Entrepreneurship and the creation of opportunities for sustainable development. *Journal of Business Venturing*, 25(5), pp. 464-480.
- Pachur, T., Hertwig, R. and Steinmann, F., 2012. How do people judge risks: availability heuristic, affect heuristic, or both?. *Journal of Experimental Psychology: Applied*, 18(3), p. 314.
- Panya, O. & Sirisai, S. 2003. Environmental consciousness in Thailand. *Japanese Journal of Southeast Asian Studies*, 41(1), pp. 59-75.
- Pathnadabutr, A. 2012. Market View: Bangkok Residential - First Quarter 2012. Available: [https://www.cbre.co.th/media/research\\_lang\\_file/214/q1\\_12\\_bangkok\\_residential\\_market\\_vj\\_ew.pdf](https://www.cbre.co.th/media/research_lang_file/214/q1_12_bangkok_residential_market_vj_ew.pdf) [Accessed 2 July 2019].
- Pearce, D.W., Markandya, A., & Barbier, E. 2013. *Blueprint for a Green Economy*. Oxon: Earthscan.
- Pettinger, R. 1996. *Introduction to Organisational Behaviour*, Houndmills: MacMillan business.
- Phdungsilp, A. 2010. Integrated energy and carbon modeling with a decision support system: Policy scenarios for low-carbon city development in Bangkok. *Energy Policy*, 38, pp. 4808–4817.
- Phillis, Y.A. and Andriantiatsaholiniaina, L.A., 2001. Sustainability: an ill-defined concept and its assessment using fuzzy logic. *Ecological economics*, 37(3), pp. 435-456.
- Phongpaichit, P. 1996. The Thai economy in the mid-1990s. *Southeast Asian Affairs*, 23(369), pp. 369-381
- Phongpaichit, P., 2016. Inequality, wealth and Thailand's politics. *Journal of Contemporary Asia*, 46(3), pp. 405-424.
- Pimpa, N. 2012. Amazing Thailand: Organizational culture in the Thai public sector. *International Business Research*, 5(11), pp. 35.
- Pitt, M., Tucker, M., Riley, M. & Longden, J. 2009. Towards sustainable construction: promotion and best practices. *Construction Innovation*, 9(2), pp. 201-224.
- Poboorn, C. 1997. *Anatomy of a traffic disaster: towards a sustainable solution to Bangkok's transport problems*. PhD Thesis (Doctor of Philosophy), Murdoch University.
- Pornchokchai, N. 2018. 2018 Bangkok Housing Markets Outlook. *AREA Press Release No. 57/2018*: Agency for Real Estate Affairs [Online]. Available: [https://www.area.co.th/english/area\\_announce/area\\_anpg.php?strquey=press\\_announcement2294.htm](https://www.area.co.th/english/area_announce/area_anpg.php?strquey=press_announcement2294.htm) [Accessed 15 June 2020]
- Pornchokchai, S. 2018. 20 Largest Developers in Thailand. *AREA Press Release No. 403//2018*: Agency for Real Estate Affairs [Online]. Available: [https://www.area.co.th/english/area\\_announce/area\\_anpg.php?strquey=press\\_announcement2640.htm](https://www.area.co.th/english/area_announce/area_anpg.php?strquey=press_announcement2640.htm) [Accessed 15 June 2020]
- Porritt, J. 2007. *Capitalism as if the World Matters*. London: Earthscan.
- Porter, M. E. & Kramer, M. R. 2006. The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, 84(12), pp. 78-92.
- Praiwan, Y. 2018. New energy code for large buildings. Available: <https://www.bangkokpost.com/business/1409766/new-energy-code-for-large-buildings> [Accessed 3 July 2019].
- Pruksa Real Estate. 2015. *Sustainability Report 2015: Create Value to Sustainable Happiness*. Pruksa Real Estate Public Company Limited.

- Purvis, B., Mao, Y. and Robinson, D., 2019. *Three pillars of sustainability: in search of conceptual origins*. *Sustainability Science*, 14(3), pp. 681-695.
- Quality Houses. 2015a. *Vision & Mission* [Online]. Quality Houses PCL. Available: <http://investor.qh.co.th/vision.html> [Accessed 7 July 2019].
- Quality Houses. 2015b. *Laddarom Elegance: Wongwan-Sathorn* [Online]. Quality Houses PCL. Available: <https://www.qh.co.th/project/Laddarom-Elegance/Laddarom-Elegance-Wongwan-Sathorn> [Accessed 8 July 2019].
- Qin, D. 2016. Positionality. *The wiley blackwell encyclopedia of gender and sexuality studies*. John Wiley & Sons.
- Qu, S. Q. & Dumay, J. 2011. The qualitative research interview. *Qualitative Research in Accounting & Management*, 8(3), pp. 238-264.
- Ratapana, C. 2017. Are Thai REITs better than property funds?.[Online] Available: <http://www.jllapsites.com/research/thai-reits-better-property-funds/> [Accessed 15 June 2020].
- Ratcliffe, J., Stubbs, M. and Keeping, M., 2009. *Urban planning and real estate development*. Abingdon, Oxon: Routledge.
- Realist Blog. 2018. *TERRARIA: แบบบ้านใหม่ จากบ้านกลางเมือง [New housing model from 'Baan Klang Muang']* [Online]. Realist Solution. Available: <http://www.realist.co.th/blog/new-bkm-terraria/> [Accessed 12 July 2019].
- Redclift, M., 2005. Sustainable development (1987–2005): an oxymoron comes of age. *Sustainable development*, 13(4), pp. 212-227.
- Rees, W.E., 1997. Is 'sustainable city' an oxymoron?. *Local environment*, 2(3), pp. 303-310.
- Rent Office Bangkok. 2019. *Park Ventures Ecoplex* [Online]. Available: <https://www.rentofficebangkok.com/ploenchit-area/park-ventures-ecoplex/> [Accessed 12 July 2019].
- Renaud, B., 2015. 'How real estate contributed to the Thailand financial crisis'. In: Mera, K. and Renaud, B. (eds.) *Asia's financial crisis and the role of real estate*. Abingdon, Oxon: Routledge, pp.183-208.
- Renaud, B., Zhang, M. and Koeberle, S., 2001. Real estate and the Asian crisis: lessons of the Thailand experience. In: Brown, S.J. & Liu, C.H. (eds.) *A Global Perspective on Real Estate Cycles*. New York: Springer Science & Business Media.
- Ritchie, J., Lewis, J. & Elam, G. 2003. *Designing and selecting samples*: London: Sage.
- Ro, S., Gallimore, P., Clements, S. & Fan, G.-Z. 2018. Herding Behavior among Residential Developers. *The Journal of Real Estate Finance and Economics*, pp. 1-23.
- Robbins, S. P. & Judge, T. 2014. *Essentials of organizational behaviour*, 12th edn., Essex, England: Pearson Education.
- Roberts, R.H., 1992. Religion and the "Enterprise Culture": The British experience in the Thatcher era (1979-1990). *Social Compass*, 39(1), pp. 15-33.
- Roberts, C. & Henneberry, J. 2007. Exploring office investment decision-making in different European contexts. *Journal of Property Investment & Finance*, 25(3), pp. 289-305.
- Robichaud, L.B. & Anantatmula, V.S. 2011. Greening project management practices for sustainable construction. *Journal of management in engineering*, 27(1), pp. 48-57.

- Romeiro, A. R. 2000. Sustainable development and institutional change: the role of altruistic behavior. *Texto para discussão*, 97.
- Rousseau, D.M., 1989. Psychological and implied contracts in organizations. *Employee responsibilities and rights journal*, 2(2), pp.121-139.
- Rousseau, D., 1995. *Psychological contracts in organizations: Understanding written and unwritten agreements*. California: Sage Publications.
- Rotter, J. B. 1966. Generalized expectancies for internal versus external control of reinforcement. *Psychological monographs: General and applied*, 80(1), p. 1.
- Rudin, J.R., 1978. *The changing structure of the land development industry in the Toronto area*. University of Toronto, Centre for Urban and Community Studies.
- Said, R., Hj Zainuddin, Y. & Haron, H. 2009. The relationship between corporate social responsibility disclosure and corporate governance characteristics in Malaysian public listed companies. *Social Responsibility Journal*, 5(2), pp. 212-226.
- Salzman, D. A. & Zwinkels, R. C. 2013. Behavioural real estate. *Journal of Real Estate Literature*, Forthcoming.
- Samari, M., Godrati, N., Esmaeilifar, R., Olfat, P. & Shafiei, M. W. M. 2013. The investigation of the barriers in developing green building in Malaysia. *Modern Applied Science*, 7(2), pp 1-10.
- Sansiri. 2014. *Long-term Vision, Comprehensive Planning, Superior Efficiency, Sustainable Future Growth: Annual Report 2014*. Sansiri Public Company Limited.
- Sansiri. 2016. 98 Wireless: The Best Comes as Standard [Online]. Available: <https://www.sansiri.com/en/condominium/98wireless/?#> [Accessed 13 November 2020]
- Sansiri. 2017. Annual Report 2017. Sansiri Public Company Limited.
- Satrusayang, C., Lefevre, A.S., Macfie, N. 2016. *Hundreds protest in Bangkok urging junta to respect land rights* [Online]. Available: <https://www.reuters.com/article/us-thailand-rights/hundreds-protest-in-bangkok-urging-junta-to-respect-land-rights-idUSKCN12309I> [Accessed 15 June 2020].
- Savin-Baden, M. & Major, C.-H. 2013. Qualitative Research: The Essential Guide to Theory and Practice. *Qualitative Research: The Essential Guide to Theory and Practice*. Routledge.
- Schaltegger, S. & Hörisch, J., 2017. In search of the dominant rationale in sustainability management: legitimacy-or profit-seeking?. *Journal of Business Ethics*, 145(2), pp. 259-276.
- Schäpke, N. & Rauschmayer, F. 2014. Going beyond efficiency: including altruistic motives in behavioral models for sustainability transitions to address sufficiency. *Sustainability: Science, Practice and Policy*, 10(1), pp. 29-44.
- Schein, E. H. 1984. Coming to a new awareness of organizational culture. *Sloan management review*, 25(2), pp. 3-16.
- Schein, E. H. 2017. *Organizational culture and leadership*, 5th edn., New Jersey: John Wiley & Sons.
- Scholl, R. W. 2003. *Organizational Culture* [Online]. The University of Rhode Island. Available: <http://www.uri.edu/research/lrc/scholl/webnotes/Culture.htm> [Accessed 9 November 2015].
- Scholz, C. 1987. Corporate culture and strategy—The problem of strategic fit. *Long Range Planning*, 20(4), pp. 78-87.

- Schulte, J. & Hallstedt, S., 2018. Company risk management in light of the sustainability transition. *Sustainability*, 10(11), p.4137.
- Schunk, D. H. & Pajares, F. 2009. Self-Efficacy Theory. *Handbook of Motivation at School*. Routledge.
- Schwartz, H. & Davis, S. M. 1981. Matching corporate culture and business strategy. *Organizational dynamics*, 10(1), pp. 30-48.
- SET. 2013. *Regulation of the Stock Exchange of Thailand re: Listing, Disclosure of Information, and Delisting of Real Estate Investment Trust Units B.E. 2556 (2013)* [Online]. Stock Exchange of Thailand (SET). Available: [https://www.set.or.th/en/products/listing2/set\\_pfundreits\\_p1.html](https://www.set.or.th/en/products/listing2/set_pfundreits_p1.html) [Accessed 15 June 2020].
- SET. 2015. *Companies/Securities in Focus* [Online]. Stock Exchange of Thailand (SET). Available: <https://www.set.or.th/set/commonslookup.do?language=en&country=US> [Accessed 2015].
- Sharifi, A. & Murayama, A. 2013. A critical review of seven selected neighborhood sustainability assessment tools. *Environmental Impact Assessment Review*, 38, pp. 73-87.
- Shatkin, G. 2008. The city and the bottom line: urban megaprojects and the privatization of planning in Southeast Asia. *Environment and Planning A*, 40(2), pp. 383-401.
- Shatkin, G. 2011. Planning privatopolis: Representation and contestation in the development of urban integrated mega-projects. In: Roy, A. & Ong, A. (eds.) *Worlding cities: Asian experiments and the art of being global*. Chichester, West Sussex: Blackwell Publishing Limited.
- Sheehy, B., 2015. Defining CSR: Problems and solutions. *Journal of business ethics*, 131(3), pp. 625-648.
- Sheng, Y. K. 2002. Housing, the state and the market in Thailand: Enabling and enriching the private sector. *Journal of Housing and the Built Environment*, 17(1), pp. 33-47.
- Sheng, Y.K. and Kirinpanu, S., 2000. Once only the sky was the limit: Bangkok's housing boom and the financial crisis in Thailand. *Housing Studies*, 15(1), pp.11-27.
- Shennon, P. 1995. Thai Government Collapses In a Land-Reform Scandal. *The New York Times*, 20 May 1995. Available: <https://www.nytimes.com/1995/05/20/world/thai-government-collapses-in-a-land-reform-scandal.html> [Accessed 15 June 2020].
- Shiraishi, T. 2004. *The rise of new urban middle classes in Southeast Asia: What is its national and regional significance?*. [Online]. The Research Institute of Economy, Trade and Industry. Available: <https://core.ac.uk/download/pdf/7165233.pdf> [Accessed 9 November 2020]
- Shiraishi, T. 2006. The third wave: Southeast Asia and middle-class formation in the making of a region. In: Katzenstein, P. J. & Shiraishi, T. (eds.) *Beyond Japan: the dynamics of East Asian regionalism*. Ithaca, New York: Cornell University Press.
- Shrivastava, P. 1994. Ecocentric leadership in the 21st century. *The Leadership Quarterly*, 5(3-4), pp. 223-226.
- Sikes, P. 2004. Methodology, procedures and ethical concerns. *Doing educational research*, pp. 15-33.
- Simon, H. A. 1957. *Models of man: social and rational*, New York: Wiley.
- Simon, H. A. 1990. Bounded rationality. In: J, E., M, M. & P, N. (eds.) *Utility and probability*. London: Palgrave Macmillan.
- Singer, M. 2010. Eco-nomics: Are the Planet-Unfriendly Features of Capitalism Barriers to Sustainability? *Sustainability*, 2(1), pp. 127-144.

- Singha Estate. 2016. *The Esse: Singha Complex* [Online]. Singha Estate PCL. Available: <http://www.singhaestate.co.th/singhacomplex/condo/en> [Accessed 8 July 2019].
- Singha Estate. 2017. Sustainable Growth: Annual Report 2016, Available: <https://investor.singhaestate.co.th/misc/ar/20170407-s-ar2016-en-02.pdf>
- Smyth, H., 1985. *Property companies and the construction industry in Britain*. Avon: Cambridge University Press.
- Smyth, H. J., 2013, June. "Green" or maturing? Environmental sustainability in marketing and business development amongst construction majors. 7th Nordic Conference on Construction Economics and Organisation, 2013. Akademika.
- Sreshthaputra, A. 2008. 10 ประเด็นบ่น: กฎหมายอนุรักษ์พลังงาน (และเขตกวดขันวินัยจราจร) [10 issues to complain: Energy conservation law (and traffic discipline)]. *ASA Journal* (วารสารอาชีพ). The Association of Siamese Architects under Royal Patronage. Vol. 10:51-11:51, pp. 82-86.
- Srimalee, S. 2013. Top 10 developers account for the 45 per cent of property market revenue. *The Nation*. Available: <http://www.nationmultimedia.com/business/Top-10-developers-account-for-45-per-cent-of-prope-30201504.html> [Accessed 26 June 2019].
- Srimalee, S. 2014. Developers up focus on debentures. *The Nation*, 29 May 2014. [Online]. Available: <https://www.nationthailand.com/property/30234947> [Accessed 15 June 2020].
- Srimalee, S. 2015. 'Green and intelligent' - the new mantra for Thai building design. *The Nation*, 11 November 2015 [Online]. Available: <http://www.nationmultimedia.com/business/Green-and-intelligent--the-new-mantra-for-Thai-bui-30272643.html> [Accessed 30 May 2019].
- Srimalee, S. 2017. Top 10 listed property companies see their combined sales revenue take a dip in 2016. *The Nation*, 5 March 2017 [Online]. Available: <http://www.nationmultimedia.com/news/business/property/30308009> [Accessed 2 July 2019].
- Srimalee, S. 2018. CP Group looks to higher return from real estate. *The Nation*, 7 September 2018. [Online]. Available: <https://www.nationthailand.com/property/30353953> [Accessed 15 June 2020].
- Srimalee, S. 2019. Property firms turn to debentures to pay for new land. *The Nation*, 10 February 2019. [Online] Available: [https://www.nationthailand.com/Real\\_Estate/30363861](https://www.nationthailand.com/Real_Estate/30363861) [Accessed 15 June 2020].
- Srisuphaolarn, P. 2013. From altruistic to strategic CSR: how social value affected CSR development—a case study of Thailand. *Social Responsibility Journal*, 9(1), pp. 56-77.
- Starbuck, W. H. 2015. Karl E. Weick and the dawning awareness of organized cognition. *Management Decision*, 53(6), pp. 1287-1299.
- Stern, P. C. 2000. Toward a coherent theory of environmentally significant behaviour. *Journal of Social Issues*, 56(3), pp. 407-424.
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A. & Kalof, L. 1999. A value-belief-norm theory of support for social movements: The case of environmentalism. *Human Ecology Review*, 6(2), pp. 81-97.
- Steurer, R., 2013. Disentangling governance: a synoptic view of regulation by government, business and civil society. *Policy Sciences*, 46(4), pp. 387-410.
- Suehiro, A. 2017. New Growth Strategies of Thailand's Big Firms in the ASEAN Economic Community Era. In: Khoo, B.T. Tsunekawa, K., & Kawano, M. (eds.). *Southeast Asia: Beyond Crises and Traps*. Cham: Palgrave Macmillan.

- Supalai. 2014. Annual CSR Report 2014. Available: <https://www.supalai.com/pdf/2016/CR2014EN.pdf>
- Suwansukhum, T. 2012. *Understanding Floor area Ratio (FAR)* [Online]. Available: <https://fenntarkoon.wordpress.com/2012/09/16/understanding-floor-area-ratio-far/> [Accessed 3 July 2019].
- Swedish Institute. 2019. *7 Examples of Sustainability in Sweden* [Online]. Swedish Institute. Available: <https://sweden.se/nature/7-examples-of-sustainability-in-sweden/> [Accessed 10 July 2019].
- Symon, G. & Cassell, C. 1997. *Qualitative Methods in Organizational Research*, London: Sage Publications.
- Symon, G. & Cassell, C. 1998. *Qualitative methods and analysis in organizational research : A practical guide*, London: Sage Publications.
- Tan, H. 2017. *Thai developer aims for rich foreigners with investment vacation home pitches*. [Online]. Available: <https://www.cnn.com/2017/03/13/thai-developer-aims-for-rich-foreigners-with-investment-vacation-home-pitch.html> [Accessed 16 June 2020].
- Teerawin. 2018. Top Thai Developers Will Launch More Than 225 Projects Until End of 2018. Available: <https://condodee.com/top-thai-developers-launch-225-projects-until-end-2018/> [Accessed 15 June 2020].
- TGBI.ca. 2015. TREES - Project Directory, Thai Green Building Institute. Available at: <http://www.tgbi.or.th/>
- TGBI. 2017. *TREES - NC/CS (Thai's Rating of Energy and Environmental Sustainability for New Construction and Major Renovation and Core and Shell Building)*. Thai Green Building Institute (TGBI). Available at: [https://www.tgbi.or.th/uploads/trees/2017\\_03\\_TREES-CS-Eng.pdf](https://www.tgbi.or.th/uploads/trees/2017_03_TREES-CS-Eng.pdf)
- Thailand-Property. 2018. *Move online: Search for your next property to buy or rent in Thailand* [Online]. Thailand-Property. Available: <https://www.thailand-property.com/> [Accessed 2018].
- Thomas, D. R. 2006. A general inductive approach for analyzing qualitative evaluation data. *American journal of evaluation*, 27(2), pp. 237-246.
- Thompson, T. D. 2004. Can the caged bird sing? Reflections on the application of qualitative research methods to case study design in homeopathic medicine. *BMC Medical Research Methodology*, 4(1), p. 4.
- Thomson Reuters. 2015. *Data protection in Thailand: overview* [Online]. Available: <https://uk.practicallaw.thomsonreuters.com/0-520-0782> [Accessed 2 November 2015].
- Tipton, F.B., 2009. Southeast Asian capitalism: History, institutions, states, and firms. *Asia Pacific Journal of Management*, 26(3), pp. 401-434.
- Toomgum, S. 2018. Green buildings yield multiple dividends: Consultancy firm says trend catching on in Thailand, but mostly office structures. *The Nation*, 12 February 2018.
- Trevillion, E. 2002. Systems theory and the commercial development process: Towards an understanding of complex behaviour and change. In: Guy, S. & Henneberry, J. (eds.) *Development and Developers: perspectives on property*. Oxford: Blackwell Science.
- Tuan Seik, F. 1992. The provision of low-cost housing by private developers in Bangkok, 1987-89: the result of an efficient market? *Urban Studies*, 29(7), pp. 1137-1146.

- Tufts, R. 2016. *LEED by the numbers: 16 years of steady growth* [Online]. USGBC. Available: <https://www.usgbc.org/articles/leed-numbers-16-years-steady-growth> [Accessed 8 July 2019].
- Turcu, C. 2018a. Sustainability indicators and certification schemes for the built environment. In: Bell, S. & Morse, S. (eds.) *Routledge Handbook of Sustainability Indicators*. Abingdon, Oxon: Routledge.
- Turcu, C. 2018b. Responsibility for Sustainable Development in Europe: What Does It Mean for Planning Theory and Practice? *Planning Theory & Practice*, 19(3), pp. 385-404.
- Tversky, A. and Kahneman, D., 1974. Judgment under uncertainty: *Heuristics and biases*. *science*, 185(4157), pp.1124-1131.
- UN DESA. 2019. World Population Prospects 2019 (2019 Revision). UN DESA - Population Division. Available at: <https://population.un.org/wpp/>.
- Univentures. 2013. Park Ventures Ecoplex: A world class award is testimony that we are the first energy saving building. Park Ventures. Available: [http://www.park-ventures.com/pdf/20130128\\_PvK-LEED-NewsReleaseENG.pdf](http://www.park-ventures.com/pdf/20130128_PvK-LEED-NewsReleaseENG.pdf).
- Univentures. 2014. *Real Estate Development and Investment Business* [Online]. Univentures PCL. Available: <http://202.60.203.236/en/business/index.php?id=1> [Accessed 3 July 2019].
- University of Warwick, 2016. *What is critical realism?* Available: <https://warwick.ac.uk/fac/soc/ces/research/current/socialtheory/maps/criticalrealism/> [Accessed 29 May 2020].
- urbanalyse. 2012. *urban growth in Bangkok* [Online]. Available: <https://urbanalyse.com/research/growing-bangkok/> [Accessed 26 June 2019].
- USGBC. ca. 2015. LEED Project Directory, U.S. Green Building Council. Available at: <http://www.usgbc.org/projects>. [Accessed ca. 2015]
- USGBC. 2018. LEED Project Directory. U.S. Green Building Council. Available at: <http://www.usgbc.org/projects>. [Accessed 2018]
- USGBC. ca. 2019. *LEED: All buildings in* [Online]. USGBC. Available: <https://new.usgbc.org/> [Accessed 27 June 2019].
- Utting, P., 2008. The struggle for corporate accountability. *Development and Change*, 39(6), pp.959-975.
- Vaughn, P. and Turner, C., 2016. Decoding via coding: Analyzing qualitative text data through thematic coding and survey methodologies. *Journal of Library Administration*, 56(1), pp. 41-51.
- Waldman, D. A., De Luque, M. S., Washburn, N., House, R. J., Adetoun, B., Barrasa, A., Bobina, M., Bodur, M., Chen, Y.-J. & Debbarma, S. 2006a. Cultural and leadership predictors of corporate social responsibility values of top management: A GLOBE study of 15 countries. *Journal of International Business Studies*, 37(6), pp. 823-837.
- Waldman, D. A. & Siegel, D. 2008. Defining the socially responsible leader. *The Leadership Quarterly*, 19(1), pp. 117-131.
- Waldman, D. A., Siegel, D. S. & Javidan, M. 2006b. Components of CEO transformational leadership and corporate social responsibility. *Journal of Management Studies*, 43(8), pp. 1703-1725.
- Walker, A. 2015. *Project Management in Construction*, 6th edn., Chichester, West Sussex: John Wiley & Sons.

- Walls, J. L. & Hoffman, A. J. 2013. Exceptional boards: Environmental experience and positive deviance from institutional norms. *Journal of Organizational Behavior*, 34(2), pp. 253-271.
- Wancharoen, S. 2020. Bangkok on high alert as PM2.5 levels forecast to rise [Online]. *Bangkok Post*. Available at: <https://www.bangkokpost.com/thailand/general/1831454/bangkok-on-high-alert-as-pm2-5-levels-forecast-to-rise> [Accessed 9 November 2020].
- Wang, L. 2014. *Thailand's LEED Platinum-Seeking Super Tower Will be Southeast Asia's Tallest Skyscraper* [Online]. inhabitat. Available: <https://inhabitat.com/thailands-leed-platinum-seeking-super-tower-will-be-southeast-asias-tallest-skyscraper/> [Accessed 3 July 2019].
- Wangwongwatana, S., Sano, D. & King, P. N. 2015. Assessing Environmental Impact Assessment (EIA) in Thailand: Implementation Challenges and Opportunities for Sustainable Development Planning (Working Paper). Hayama, Japan: Institute for Global Environmental Strategies. Available at: [https://www.aecen.org/sites/default/files/eia\\_thai\\_study\\_10mar15-final.pdf](https://www.aecen.org/sites/default/files/eia_thai_study_10mar15-final.pdf).
- Warren, C. A. 2002. Qualitative interviewing. *Handbook of interview research: Context and method* [Online]. SAGE Research Methods. Available: [https://mycourses.aalto.fi/pluginfile.php/603336/mod\\_resource/content/2/handbook-of-interview-research.pdf](https://mycourses.aalto.fi/pluginfile.php/603336/mod_resource/content/2/handbook-of-interview-research.pdf) [Accessed 18 November 2020]
- WCED. 1987. *Our Common Future*, Press, Oxford: Oxford University Press.
- Weick, K. E. 1969. *The social psychology of organizing*, Reading: Addison-Wesley Publishing.
- Wikitravel. 2019. *Bangkok* [Online]. Wikitravel. Available: <https://wikitravel.org/en/Bangkok> [Accessed 12 July 2019].
- Wilkinson, S. J. 2013. Conceptual understanding of sustainability in the Australian property sector. *Property Management*, 31(3), pp. 260-272.
- Wilkinson, S. & Reed, R. 2008. *Property development*, 5th ed., London: Routledge.
- Wilkinson, S. J. & Sayce, S. L. 2015. Introduction to sustainable property development. In: Wilkinson, S. J., Sayce, S. L. & Christensen, P. H. (eds.) *Developing property sustainably*. Abingdon, Oxon: Routledge.
- Wilkinson, S.J., Sayce, S.L. & Christensen, P.H., 2015. *Developing property sustainably*. Oxon: Routledge.
- Wilkinson, S., Van Der Kallen, P. & Phui Kuan, L. 2014. The relationship between the occupation of residential green buildings and pro-environmental behavior and beliefs. *Journal of Sustainable Real Estate*, 5(1), pp. 1-22.
- Wilson, C. & Chatterton, T. 2011. Multiple models to inform climate change policy: a pragmatic response to the 'beyond the ABC' debate. *Environment and Planning A*, 43(12), pp 2781-2787.
- Wilson, J. L. & Tagaza, E. 2006. Green buildings in Australia: drivers and barriers. *Australian Journal of Structural Engineering*, 7(1), pp. 57-63.
- Wipatayotin, A. 2019. Calls mount for fairer land distribution: Title deeds emerge as hot topic in 2019. *Bangkok Post*, 6 January 2019 [Online]. Available: <https://www.bangkokpost.com/thailand/general/1605974> [Accessed 15 June 2020].
- World Bank. 2015. *Urbanization in Thailand is dominated by the Bangkok urban area* [Online]. World Bank Group. Available: <https://www.worldbank.org/en/news/feature/2015/01/26/urbanization-in-thailand-is-dominated-by-the-bangkok-urban-area> [Accessed 3 July 2019].



- World Bank. 2019. *The World Bank In Thailand: Overview* [Online]. World Bank Group. Available: <https://www.worldbank.org/en/country/thailand/overview> [Accessed 3 July 2019].
- World Green Building Council. 2013. *The Business Case for Green Building: A Review of the Costs and Benefits for Developers, Investors, and Occupants*. Available: [https://www.worldgbc.org/sites/default/files/Business Case For Green Building Report WEB\\_2013-04-11-2.pdf](https://www.worldgbc.org/sites/default/files/Business_Case_For_Green_Building_Report_WEB_2013-04-11-2.pdf) [Accessed 30 May 2019].
- World Green Building Council. 2019. *About Green Building: What is green building?* [Online]. World Green Building Council 2016-2019. Available: <https://www.worldgbc.org/what-green-building> [Accessed 27 June 2019].
- World Population Review. 2019a. *Bangkok Population 2019* [Online]. Available: <http://worldpopulationreview.com/world-cities/bangkok-population/> [Accessed 2 July 2019].
- World Population Review. 2019b. *Thailand Population 2019* [Online]. World Population Review. Available: <http://worldpopulationreview.com/countries/thailand-population/> [Accessed 3 July 2019].
- Yam, S. 2012. Corporate social responsibility and the Malaysian property industry. 18th Annual PRRES Conference, Adelaide, Australia, 15-18 January.
- Yano, T., 1968. Land tenure in Thailand. *Asian Survey*, 8(10), pp. 853-863.
- Yukl, G. 2013. *Leadership in organizations*, 8th edn., Essex: Pearson Education.
- Zhang, X., Platten, A. & Shen, L. 2011a. Green property development practice in China: costs and barriers. *Building and environment*, 46(11), pp. 2153-2160.
- Zhang, X., Shen, L., Wu, Y. & Qi, G. 2011b. Barriers to implement green strategy in the process of developing real estate projects. *The Open Waste Management Journal*, 4(1), pp. 33-37.



# Appendix 1: Scoping study – Profile of 44 SET-listed developers

		SET data						Corporate website & annual report ca. 2015-17							
		Age (listed)	Age (established)	Size	Total revenue (€ million)	Net profit (€ million)	Net profit margin (%)	Project location(s)	No. of project	Green building measures	CSR report	CSR Committee	Corporate social/environmental responsibility in CMP	Corporate social/environmental responsibility in message from chairman	
CERT	RES	1994	1989	2987	319	46	14	L,P	101	Design, Cont, After, Cert	No	Yes	SC,SR,EC,ER	Yes	
CERT	RES	2005	1993	3437	983	147	15	L,P,I	204	Design, Cont, After, Cert	Yes	No	SC,SR,EC,ER	SC,SR,EC,ER	
CERT	RES	1995	1984	1357	735	67	9	L,P	118	Design, Cert	No	Yes	SC,SR	Yes (CSR, SC,SR)	
CERT	COM	1994	1980	786	257	12	5	L	5	Design, After, Cert	No	No	SC,EC (SU)	Yes (SC,EC,SR,ER,SU)	
CERT	IND	1994	1988	129	323	13	4	P	4	Design, Cert	No	No	No	No	
CERT	IND	2001	1990	232	102	15	14	P	31	Design, Cont, After, Cert	No	No	SR,ER	No	
CERT	MIX	1994	1978	445	165	13	8	L	28	Design, Cont, Cert	No	No	SC	Yes (SC)	
CERT	MIX	1995	1985	253	99	33	34	L	12	Design, Cont, Cert	No	No	No	No	
CERT	MIX	2004	N/A	1224	44	-4.98	-11.26	L,P	21	Design, Cont, Cert	Yes	Yes	No	Yes	
ADV	RES	2003	2000	585	104	4	4	L	30	Design	No	No	No	No	
ADV	RES	1994	1984	1670	428	50	12	L,P	112	Design	No	No	No	No	
ADV	RES	1993	1980	165	34	3	8	L	6	Design	No	No	No	Yes	
ADV	RES	1993	1987	149	18	0	1	L	18	Design	No	No	SC	N/A	
ADV	RES	2002	1988	338	40	7	17	L,P	61	Design, Cont	No	No	No	No	
ADV	RES	1992	1983	778	601	151	25	L,P	45	Design, Cont	Yes	No	SC,SR,EC,ER	Yes	
ADV	RES	2014	2009	248	39	7	19	L,P	25	Design	No	No	SC	SC	
ADV	RES	1993	1985	975	247	7	3	L,P	43	Design, After	No	No	SC,SR,EC,ER	No	
ADV	RES	2004	2000	342	51	1	3	L,P	22	Design	No	No	SC	No	
ADV	RES	1993	1983	1358	416	59	14	L,P	92	Design	No	No	SC,SR,EC	No	
ADV	COM	1994	1974	521	233	35	15	L,P	10	Design, After	No	No	SC,EC	N/A	
ADV	COM	2002	1994	86	56	27	48	L,P	22	Design, Cont	No	No	SC,SR	No	
ADV	COM	2005	2000	28	8	0	4	L	3	Design	Yes	No	SC	SC,SR,EC,ER	
ADV	IND	1994	1989	111	122	23	19	P,R	3	Design, Cont, After	Yes	No	EC,SC	Yes (EC,SC)	
ADV	MIX	2002	1989	72	54	3	5	L,P	14	After	Yes	Yes	SC,SR,EC,ER	SC,SR,EC,ER	
ADV	MIX	1994	1983	72	6	-1	-21	L	3	Design	No	No	SC,SR	Yes (SR)	
ADV	MIX	2005	1999	450	67	2	4	L,P	20	Design	No	No	No	N/A	
ADV	MIX	1995	1991	360	9	-9	-105	L	17	Design, Cont, After	No	No	SC,SR	No	
ADV	MIX	1994	1960	114	23	1	4	L,P	12	Design, Cont, After	No	Yes	SC,EC	No	
ADV	MIX	2011	2003	148	67	-34	-51	L,P	5	Design	No	Yes	SC,EC	SC,EC	
ADV	MIX	2013	2002	89	10	1	8	L	10	Design, Cont	No	No	SC,EC,ER	No	
ADV	MIX	1993	1987	181	98	17	18	L	13	Design	No	No	SC,EC	No	
ADV	MIX	1994	1970	N/A	29	2	8	L	14	Design	No	No	SC	No	
ADV	MIX	2003	1989	867	271	36	13	L,P	36	Design, Cont, After	N/A	Yes	SC,SR,EC,ER	SR,ER	
ADV	MIX	1992	1989	924	411	83	20	L,P	46	Design, Cont, After	Yes	No	SC,SR,EC,ER	Yes (SU,SC)	
ADV	MIX	2005	1993	455	42	5	11	L,P	25	Design	No	No	SC,SR,EC,ER	SC,EC	
ADV	MIX	1994	1988	67	24	-5	-22	L,P	6	Design, Cont	No	No	SC,EC	No	
NON	RES	2005	1990	35	2	0	10	L,P	8	No	No	No	SC,SR,EC	No	
NON	RES	1994	1988	260	15	-2	-12	L,P	10	No	No	No	EC	N/A	
NON	RES	1995	1989	60	5	0	-8	L	24	No	No	No	SC,EC	N/A	
NON	COM	2015	2012	42	10	1.11	10.78	L	48	No	No	No	SC	N/A	
NON	COM	2014	2013	574	34	12	36	L,P	6	No	N/A	No	SC,SR,EC,ER	Yes (SR,ER)	
NON	MIX	1993	1982	286	34	-5	-16	L,P	16	No	No	No	No	No	
NON	MIX	1993	1973	258	76	12	16	L,P	49	No	No	No	No	No	
NON	MIX	1994	1977	75	17	-5	-32	L,P	17	No	No	Yes	SC,SR,EC,ER	No	

SET Data Based on Statement of Comprehensive Income FY2015  
1 GBP= THB 52.34 at time of study

Source: Research fieldwork

L Local  
P Provincial  
R Regional  
I Provincial

SC Social commitment  
SR Social responsibility  
EC Environmental commitment  
ER Environmental responsibility

Cont Construction  
After After construction

## Appendix 2: Document analysis guide

	Variable	Document Source	Things to Look for
ORGANIZATIONAL CULTURE	1) Corporate Mission	<ul style="list-style-type: none"> <li>- Corporate mission, vision and philosophy statements (published online)</li> <li>- Company slogan</li> <li>- Message from chairman(s)</li> <li>- Other relevant PR documents</li> </ul>	Public statements that addresses the organisation's corporate objective and philosophy; their goals, visions and corporate values underlying their performance. As well as their history and past experiences that may have created this vision
	2) Internal Environmental Awareness	<ul style="list-style-type: none"> <li>- Corporate policy statements</li> <li>- PR materials documenting organised internal activities</li> </ul>	Corporate policies, training, or activities that relate raising/promoting environmental awareness within internal organisation departments; Efforts in raising environmental concerns by the organisation
	3) Corporate Environmental Responsibility	<ul style="list-style-type: none"> <li>- Corporate policy statements</li> <li>- CSR reports</li> <li>- PR materials and press releases</li> </ul>	Statements and organisational activities illustrating responsibility to preserve the environment; Statements indicating the degree in which environmental preservation is seen as a vital element for good (i.e. responsible) corporate citizenship; Examples of embedded environmental strategies including CSR policies, environmental marketing strategies, among others; Examples of community activities organised with the public to promote environmental issues
	4) Corporate Risk-orientation	<ul style="list-style-type: none"> <li>- Corporate mission and philosophy statements; company slogan</li> <li>- Message from chairman(s)</li> </ul>	Statements and strategies signifying the degree in which the organisation identifies and responds to risks from the external environment; The enthusiasm and devotion to undertaking challenges in novel and innovative ideas
INDIVIDUAL CONSTRUCTS	5) Managerial Objective	<ul style="list-style-type: none"> <li>- Corporate organisational chart</li> <li>- Message from chairman(s)</li> </ul>	Profile of top managers in the organisation Managerial views and constructs; what they want to achieve for this organisation and how they plan on accomplishing the task Corporate visions, beliefs, and philosophies that motivate them as a managerial individual
	6) Management Environmental Commitment	<ul style="list-style-type: none"> <li>- Message from chairman(s)</li> <li>- Managerial speeches/ interviews</li> <li>- Published articles authored by the manager</li> <li>- Other PR materials documenting environmental initiatives authorised by the manager</li> </ul>	Statements identifying perspective and views on environmental issues, sustainable development, or sustainable building and construction; Statements signifying the <u>degree of commitment</u> the manager has in resolving environmental issues and promoting environmental preservation; Statements identifying viewpoints on the need and necessity for environmental business practice;

		Statements explaining the rationale behind the need for other pro-environmental activities
7) Managerial Environmental Outlook		<p>Statements identifying perspective and views on environmental issues, sustainable development, or sustainable building and construction <u>in relation to organisational functions</u>;</p> <p>Statements addressing the belief of benefits or drawbacks from embedding environmental initiatives in organisational business decisions;</p> <p>The degree to which environmental preservation is seen as a vital element for the firm's survivability</p>
8) Perceptions of Green Building Practice	<ul style="list-style-type: none"> <li>- Managerial speeches/ interviews</li> <li>- Published articles related to green building practice authored by the manager</li> <li>- Other PR materials documenting green building initiatives authorised by the manager</li> </ul>	<p>Statements identifying perspective and views on green building practice – or more generally sustainable building construction;</p> <p>Statements identifying risks or opportunities that are believed to be associated with green building practice; and how they are responded to</p>

## Appendix 3: Interview protocols

	Variable	Interview Question	Things to Look for
ORGANIZATIONAL CULTURE	2) Internal Environmental Awareness	<p>- Does your organisation prominently seek to promote environmental awareness* (the importance of environmental preservation) among your members of staff and their codes of conduct?</p> <p>- If so, can you explain how and/or give examples (i.e. policies, training, internal programmes, activities)?</p> <p>*environmental awareness can be described and explained more deliberately as the importance of environmental preservation</p>	<ul style="list-style-type: none"> <li>Corporate policies, training, programmes, or activities that relate raising/promoting environmental awareness within internal organisation departments;</li> <li>Efforts in raising environmental concerns by the organisation and ways in which environmental practice has been promoted</li> <li>Contents of environmental topics that are raised – particularly in relation with environmental preservation, sustainable development, sustainable building design/construction and green building practice</li> </ul>
	3) Corporate Environmental Responsibility	<p>How would you describe your organisation's view and outlook on corporate environmental responsibility?</p> <p>Can you tell me some examples of the efforts that has been made?</p>	<ul style="list-style-type: none"> <li>How environmental responsibility is understood; how it is viewed and whether or not it is seen as an important aspect organisational practice;</li> <li>Whether environmental issues have been prioritised in organisational functions</li> <li>Examples of corporate environmental efforts that has been made or planned for the near future (e.g. CSR, community activities)</li> </ul>
	4) Corporate Risk-orientation	<p>-How would you describe your organisation's outlook on practicing new or innovative ideas which may be unacquainted to the local context?</p> <p>-Do you feel that your organisation functions within a culture which pushes for experimental decisions and creative ideas; or one which is more risk averse that is more comfortable with fail-safe experienced choices?</p>	<ul style="list-style-type: none"> <li>How the organisation processes and responds to risks associated to the engagement of a project (particularly more experimental/innovative projects)</li> <li>The disposition on risk embedded within the organisation's culture – does the organisation welcome risks (i.e. "high risk, high return", bold statements on creativity and innovation) or is much more conservative and risk averse (i.e. settles with normative means of practice)</li> </ul>
INDIVIDUAL CONSTRUCTS	5) Managerial Objective	<p>-What do you believe is your objective and purpose as the manager of this organisation?</p> <p>-What are your main goals and what do you seek to achieve (for yourself and the organisation)?</p>	<ul style="list-style-type: none"> <li>What they would like to achieve for themselves and for the organisation</li> <li>Take notes on any 'taken for granted assumptions' that may be inherent in the response</li> <li>What the respondent prioritises as most important for their role as a manager</li> </ul>
	6) Management Environmental Commitment	<p>-Can you tell me about your personal values on environmental preservation and environmental practice?</p> <p>- (If relevant) Can you tell me about some of the environmental initiatives you (or other members) have introduced or promoted in your organisation's practice?</p>	<ul style="list-style-type: none"> <li>Perspective and personal views on environmental issues, sustainable development, or sustainable building and construction</li> <li>Viewpoints on environmental business practice; the importance and the need for prioritisation</li> <li>Statements signifying the degree of commitment the manager has in resolving environmental issues and promoting environmental preservation in organisational practice</li> <li>Explanations and rationale behind the respondents' personal belief regarding pro-environmental activities</li> </ul>

<p>7) Managerial Environmental Outlook</p>	<p>What do you feel are the synergies (or conflicts) between environmental preservation and your organisation's practice?</p> <p>Can you tell me about some of the drawbacks or opportunities you think there would be for your business operation?</p>	<ul style="list-style-type: none"> <li>• Perspective and personal views on environmental issues, sustainable development, or sustainable building and construction; and how it seen to affect organisational practice</li> <li>• Personal beliefs of benefits or drawbacks from integrating environmental initiatives in organisational business decisions</li> </ul>
<p>8) Perceptions of Green Building Practice</p>	<p>Can you tell me your understanding and views on green building practice?</p> <p>What opportunities or risks do you associate with green building practice; and how do you perceive this to affect your organisation's practice?</p>	<ul style="list-style-type: none"> <li>• Respondents' understanding of the concept of green building practice</li> <li>• Personal views on green building practice – or more generally sustainable building construction – identifying risks or opportunities</li> <li>• The association of risks (or opportunities) in green building practice with organisational practice; and how they are responded to</li> </ul>

# Appendix 4: Interview protocols (revised and translated)

Principal Researcher: Dr Catalina Turcu, Lecturer in Sustainable Development and Planning,  
 Director for MSc Sustainable Urbanism, The Bartlett School of Planning

Student Researcher: Alizara Juangbhanich (อลิศรา จ้างพานิช)  
 a.juangbhanich.11@ucl.ac.uk +6681-497-4308

Sponsor: The Bartlett School of Planning, University College London (UCL)

Programme: Doctoral Research Degree in Urban Planning Studies (PhD in Planning Studies)

**Research Title:**

How and Why Do Private Developers Engage in Green Building Practice: The Case of Bangkok, Thailand

**Interview Topic:**

Managerial views and organisational engagement in environmental and green building practice.

มุมมองและการดำเนินงานด้านสิ่งแวดล้อม (Environmental Practice) และการจัดทำโครงการอาคารเขียว (Green Building) ของผู้บริหารและองค์กร

**Interview Protocols:**

Variable	Interview Questions (Eng.)	Interview Questions (Thai)
ORGANIZATIONAL CULTURE	<p>1) Internal Environmental Awareness</p> <p>ความตระหนักด้านสิ่งแวดล้อมภายในองค์กร</p> <p>Does your organisation prominently seek to promote environmental awareness* (the importance of environmental preservation) among your members of staff?</p> <p>- If so, can you explain how and/or give examples (i.e. policies, training, codes of conducts, internal programmes, activities)?</p> <p>*environmental awareness can be described and explained more deliberately as the importance of environmental preservation</p>	<p>-ในองค์กรของท่านมีการส่งเสริมและสนับสนุนให้ตระหนักถึงสิ่งแวดล้อมในการปฏิบัติงานหรือไม่ มากน้อยอย่างไร?</p>



MANAGERIAL CONSTRUCTS	2) Corporate Environmental Responsibility ความรับผิดชอบต่อสิ่งแวดล้อมขององค์กร	What are your organisation's view and outlook on corporate environmental responsibility?  Can you tell me some examples of the efforts that has been made?	-องค์กรของท่านมีทัศนคติและมุมมองด้านความรับผิดชอบต่อสิ่งแวดล้อมอย่างไร?
	3) Corporate Risk-orientation การวางแนวทางการเสี่ยงขององค์กร	-How would you describe your organisation's outlook on practicing new or innovative ideas which may be unacquainted to the local context?  -Do you feel that your organisation functions within a culture which pushes for experimental decisions and creative ideas; or one which is more risk averse that is more comfortable with fail-safe experienced choices?	-องค์กรของท่านมีการส่งเสริมและสนับสนุนให้เกิดแนวคิดด้านนวัตกรรมมากน้อยอย่างไร?
	4) Managerial Objective & Purpose วัตถุประสงค์และเป้าหมายในการบริหารจัดการขององค์กร	-What do you believe is your objective and purpose as the manager of this organisation?	-เป้าหมายในการบริหารองค์กรของท่านคืออะไร?
	5) Management Environmental Commitment ความมุ่งมั่นของผู้บริหารในการบริหารจัดการสิ่งแวดล้อม	-Can you tell me about your personal values on environmental preservation and environmental practice?  - (If relevant) Can you tell me about some of the environmental initiatives you (or other members) have introduced or promoted in your organisation's practice?	-ท่านมีมุมมองและค่านิยมในการรักษาสิ่งแวดล้อม และการดำเนินงานด้านสิ่งแวดล้อมอย่างไรบ้าง?  -(หากเกี่ยวข้อง) ท่านหรือองค์กรมีกรริเริ่มด้านสิ่งแวดล้อมที่ได้นำมาปฏิบัติในการดำเนินงานขององค์กรอย่างไรบ้าง?

<p>6) Managerial Environmental Outlook</p> <p>ทัศนคติและมุมมองของผู้บริหาร ในการบริหารจัดการสิ่งแวดล้อม</p>	<p>-What do you feel are the synergies (or conflicts) between environmental preservation and your organisation's practice?</p> <p>-Can you tell me about some of the drawbacks or opportunities you think there would be for your business operation?</p>	<p>-ท่านมีความเห็นอย่างไรเกี่ยวกับความสอดคล้อง (หรือ ความขัดแย้ง) ระหว่างการอนุรักษ์ สิ่งแวดล้อมและการดำเนินงานขององค์กร?</p> <p>-เมื่อดำเนินงานด้านสิ่งแวดล้อมหรืออาคารเขียว ท่านมองว่าทางองค์กรมีโอกาสหรือข้อเสียเปรียบทางธุรกิจอย่างไรบ้าง?</p>
<p>7) Perceptions of Green Building Practice</p> <p>มุมมองในการดำเนินการและจัดทำอาคารเขียว</p>	<p>-Can you tell me your understanding and views on green building practice?</p> <p>-What opportunities or risks do you associate with green building practice; and how do you perceive this to affect your organisation's practice?</p>	<p>-ท่านมีความเข้าใจและมุมมองต่อการจัดทำโครงการอาคารเขียวอย่างไรบ้าง?</p> <p>-อะไรคือโอกาสหรือความเสี่ยงที่ท่านเห็นเมื่อมีการจัดทำโครงการอาคารเขียว และเกี่ยวข้องต่อการดำเนินธุรกิจของท่านอย่างไร?</p>

## Appendix 5: Interview topics

Principal Researcher: Dr Catalina Turcu, Lecturer in Sustainable Development and Planning,  
Director for MSc Sustainable Urbanism, The Bartlett School of Planning

Student Researcher: Alizara Juangbhanich (อลิศรา จัวงศ์พานิช)  
a.juangbhanich.11@ucl.ac.uk +6681-497-4308

Sponsor: The Bartlett School of Planning, University College London (UCL)

Programme: Doctoral Research Degree in Urban Planning Studies (PhD in Planning Studies)

### Research Title:

How and Why Do Private Developers Engage in Green Building Practice: The Case of Bangkok, Thailand

### Interview Topic (หัวข้อสัมภาษณ์):

Managerial views and organisational engagement in environmental and green building practice.

มุมมองด้านสิ่งแวดล้อม (Environmental Practice) และอาคารเขียว (Green Building) ของผู้บริหารและองค์กร

- |   |   |
|---|---|
| 1. Internal Environmental Awareness<br>การรณรงค์ด้านสิ่งแวดล้อมภายในองค์กร              | 5. Managerial Environmental Outlook<br>ทัศนคติและมุมมองของผู้บริหารในการบริหารจัดการ<br>สิ่งแวดล้อม |
| 2. Corporate Environmental Responsibility<br>ความรับผิดชอบต่อด้านสิ่งแวดล้อมขององค์กร   | 6. Perceptions of Green Building Practice<br>มุมมองด้านอาคารเขียว                                   |
| 3. Innovation in Environmental Practice<br>นวัตกรรมขององค์กรด้านสิ่งแวดล้อม             |   |
| 4. Managerial Philosophy in Property Development<br>หลักปรัชญาในการพัฒนาอสังหาริมทรัพย์ |   |

# Appendix 6: Interview recruitment letter

UCL Project ID: 7715/001

Bartlett School of Planning  
University College London  
Gower Street, London, WC1E 6BT

23 สิงหาคม 2559

เรื่อง ขอความอนุเคราะห์เก็บข้อมูลงานวิจัย

เรียน

- สิ่งที่ส่งมาด้วย
1. หัวข้อวิทยานิพนธ์และรายละเอียดหัวข้อสัมภาษณ์
  2. เอกสารประกอบการขออนุญาตจัดทำการสัมภาษณ์จากมหาวิทยาลัย UCL

ด้วยข้าพเจ้า นางสาว อลิศรา จ้วงพานิช รหัสประจำตัว 110058036 นักศึกษาระดับดุษฎีบัณฑิต ชั้นปีที่ 2 สาขา Planning Studies คณะ Bartlett School of Planning มหาวิทยาลัย University College London (UCL) ได้รับอนุมัติโครงร่างวิทยานิพนธ์ เรื่อง “How and Why Do Private Developers Engage in Green Building Practice: The Case of Bangkok, Thailand” ซึ่งเป็นส่วนหนึ่งของการศึกษาตามหลักสูตรดุษฎีบัณฑิต สาขา Planning Studies ภายใต้การควบคุมของ Dr. Catalina Turcu ตำแหน่ง Lecturer in Sustainable Development and Planning และ Programme Director for MSc Sustainable Urbanism เป็นอาจารย์ที่ปรึกษาวิทยานิพนธ์

เพื่อให้การดำเนินการวิจัยสำเร็จลุล่วงไปด้วยดี จึงใคร่ขอความรู้และมุมมองในการดำเนินงานด้านสิ่งแวดล้อม (Environmental Practice) และการจัดทำโครงการอาคารเขียว (Green Building Practice) ของท่านและองค์กร เป็นระยะเวลาประมาณ 30 นาที ตามที่ท่านได้ให้ความอนุเคราะห์เข้าสัมภาษณ์ในวันที่ 24 สิงหาคม 2559 เวลา 16.00น.

จึงเรียนมาเพื่อโปรดพิจารณาและขอขอบพระคุณมา ณ โอกาสนี้

ขอแสดงความนับถือ




(นางสาว อลิศรา จ้วงพานิช)  
Student Researcher

โทร. 081-497-4308

Email: a.juangbhanich.11@ucl.ac.uk

# Appendix 7: Information sheet

Information Sheet for UCL Research Studies	
This study has been approved by the UCL Research Ethics Committee (Project ID Number): 7715/001	
Research Title: <b><u>How and Why do Private Developers Engage in Green Building Practice: The Case of Bangkok, Thailand</u></b>	
<p>Thank you for reading this information sheet and for considering take part in this research. If you decide to take part you will be given this information sheet to keep and be asked to sign a consent form. It is up to you to decide whether to take part or not; choosing not to take part will not disadvantage you in any way. If you do decide to take part you are still free to withdraw at any time and without giving reason.</p>	
All data for this research will be collected and stored in accordance with the UK Data Protection Act 1998.	
We would like to invite you to participate as a <b>Key Interview Respondent</b> in this research project:	
<ul style="list-style-type: none"><li>• The procedure will involve a 1 hour interview (maximum) in which the researcher will ask you a series of questions regarding your organisation's practice and personal views on green building practices in Thailand. The interview will be recorded with a tape recorder under your consent.</li><li>• Recorded interviews will be transcribed (written up) and the tape will then be wiped clear.</li><li>• Provided that there are sensitive questions that you do not wish to answer for any reason, you may choose not to give any response on the subject. Alternatively, you may also opt to withdraw from the study at any time during the course of the interview.</li><li>• Your contribution will be used as qualitative data for the researcher's own PhD in Planning Studies at the Bartlett School of Planning, University College London (UCL) and will be disseminated primarily in the form of the doctoral thesis itself as well as other related conferences and academic publication opportunities that may arise.</li><li>• Your contribution will be used anonymously throughout the dissemination of results. Personal data will be stored and protected under the UK Data Protection Act 1998, as well as data protection frameworks provided by the Constitution of the Kingdom of Thailand which recognises the right to privacy and The Thai Civil and Commercial Code which provides personal data protection under the wrongful act principle.</li><li>• Your personal and organisation data (including tape recordings) will be used confidentially by the researcher for the sole purpose of this study and will not be shared with other members of participants.</li><li>• Conduct of the interview will undertake ethical considerations for as per the Forum for Ethical Review Committees in Thailand (FERCIT) Ethical Guidelines for Research in Human Subjects in Thailand, 2007</li><li>• You will also be provided a copy of an executive summary of the research project that you may use at your own discretion. This will take place after substantial procedures of analysis or upon completion of the thesis whichever is seen as more appropriate.</li></ul>	

✦ **Details of Study:**

Buildings consume up to 40% of global energy, 25% of global water, 40% of global resources, and emit approximately one third of GHG emissions. Sustainable building design and construction is increasingly seen as a means to alleviate growing environmental concerns with particular emphasis on green building practice. Despite the growing awareness and rapidly increasing number of projects throughout the developed world, integration of green building practice in developing Asian cities remain slow due to prevailing notions of impracticality founded on economic and technological infeasibility.

Developers - as organisations - are influenced by social, political, economic, technological, and physical factors as well as the specific characteristics of the organisation itself. Organisation behaviour theory states that the adaptive capacity for each organisation is different and that organisations behave differently due to its' perception of uncertainties, organisation culture, administrative profiles, stakeholder input as well as behavioural traits of the management or decision-maker. With the presence of such organisational constructs, restrained integration of green building practice may not be merely an issue of practicality.

The research aims to contribute a better understanding to private developers' engagement with green building practice in the context of developing cities in Asia with Bangkok as a case study. The study proposes to achieve its objective by exploring developer responses to green building practice through an organisational behaviour perspective under the key question: "how and why do private developers engage in green building practice?" A series of semi-structured interviews will be conducted with respondents that hold managerial positions from 40 developer organisations in Bangkok that are listed with the Stock Exchange of Thailand (SET). Findings and analysis seek to provide insight towards understanding significant factors that underlie developer responses to green building practice in the context of developing cities; as well as the interaction and relationship of these factors in shaping the outcome of responses. Implications for policy recommendations to encourage developers to undertake green building efforts to be provided in the discussion.

**Thank you for your time and kind consideration.** Please discuss the information above with the researcher if anything remains clear or if you would like further information. Should you decide to take part in this research please ask the researcher to proceed to the Consent Form.

*What if something goes wrong?*

If this study has harmed you in any way or if you wish to make a complaint about the conduct of the study you can contact UCL using the details below for further advice and information:


**Student Researcher** | Alizara (Lisa) Juangbhanich • a.juangbhanich.11@ucl.ac.uk • UK +4475 9251 7111 • TH +6681 497 4308

**Research Supervisor** | Dr Catalina Turcu, Lecturer in Sustainable Development and Planning and Programme Director for MSc Sustainable

Urbanism • The Bartlett School of Planning, Central House, 14 Upper Woburn Place, London WC1H 0NN •

+44(0)20 3108 9525

## Appendix 8: Interview consent form

Informed Consent Form for UCL Research Studies		
<p>This study has been approved by the UCL Research Ethics Committee (Project ID Number): 7715/001</p>		
<p>Research Title:</p> <p><b><u>How and Why do Private Developers Engage in Green Building Practice: The Case of Bangkok, Thailand</u></b></p>		
<p>Thank you for your interest in taking part in this research. Before you agree to take part, the researcher must have explained the project to you. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you to decide to participate.</p>		
<p>You will be given a copy of this Consent Form to keep and refer to at any time.</p>		
<p><b>Participant's Statement</b></p> <ul style="list-style-type: none"><li>• I have read the notes written above and the Information Sheet, and understand what the study involves.</li><li>• I understand that if I decide at any time that I no longer wish to take part in this project, I can notify the researcher and withdraw immediately.</li><li>• I understand that my participation will be tape recorded and I consent to use of this material as part of the project.</li><li>• I consent to the processing of my personal and/or organisation data for the purpose of this research study.</li><li>• I understand that such information will be treated as strictly confidential and handled in accordance with the provisions of the Data Protection Act 1998 and the data protection framework provided by the Constitution of the Kingdom of Thailand and The Thai Civil and Commercial Code.</li><li>• I understand that the information I have submitted may be published or shared in future papers and conferences. Confidentiality and anonymity will be maintained and it will not be possible to identify me from any publications.</li><li>• I agree that my non-personal research data may be used by others for future research. I am assured that the confidentiality of my personal data will be upheld through the removal of identifiers.</li><li>• I agree that the research project named above has been explained to me to my satisfaction and I voluntarily agree to take part in this study.</li></ul>		
<p>Printed Name:</p>	<p>Signed:</p>	<p>Date:</p>

## Appendix 9: List of interviewees

		Developer Type	Interviewee code	Respondent position/ Department	Management position	Interview format
Residential	1	NON	NON1-R	Executive Director	Top manager	(via phone)
	2	ADV	ADV1-R	Product development		In-person
	3	ADV	ADV2-R	Director	Top manager	In-person
	4	ADV	ADV3-R	Executive Committee Member	Top manager	In-person
	5	ADV	ADV4-R	Chairman of Risk Management Committee	Top manager	In-person
	6	CERT	CERT1-R	Director and Risk Management Committee Member	Top manager	(via phone)
	7	CERT	CERT2-R	Executive Advisor		In-person
Commercial	8	NON	NON2-C	Director, Executive Director, and Chief Executive Officer	Top manager	In-person
	9	ADV	ADV5-C	Vice President, Engineering Department	Top manager	In-person
	10	ADV	ADV6-C	Business Development Manager	Senior manager	(via phone)
	11	CERT	CERT3-C	Director and President	Top manager	In-person
Industrial	12	ADV	ADV7-I	Urban Development Manager	Senior manager	(via phone)
	13	CERT	CERT4-I	Director	Top manager	In-person
Mixed	14	NON	NON3-M	Senior Product Development Officer	Senior	In-person
	15	ADV	ADV8-M	Director/Risk Management Committee/Deputy Managing Director	Top manager	In-person
	16	ADV	ADV9-M	Executive Vice President	Top manager	In-person
	17	ADV	ADV10-M	Deputy Chief Executive Officer, Construction Department	Top manager	(via phone)
	18	ADV	ADV11-M	Managing Director	Senior manager	In-person
	19	ADV	ADV12-M	<i>Undisclosed</i>	Senior manager	In-person
	20	ADV	ADV13-M	Assistant Manager, Creative and Product Development	Assistant Manager	In-person
	21	CERT	CERT5-M	Vice President Corporate Communications	Top manager	(via phone)
	22	CERT	CERT6-M	Member of Executive Committee and Chief Design and Construction Officer	Top manager	In-person



# Appendix 10: Approved UCL Ethics application

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UCL RESEARCH ETHICS COMMITTEE  
ACADEMIC SERVICES



16 November 2015

Dr Catalina Turcu  
Bartlett School of Planning  
UCL

Dear Dr Turcu

**Notification of Ethical Approval**

**Project ID: 7715/001: How and why do private developers engage in Green Building Practice: the case of Bangkok, Thailand**

I am pleased to confirm in my capacity as Chair of the UCL Research Ethics Committee (REC) that I have approved your study for the duration of the project i.e. until November 2016.

Approval is subject to the following conditions:

1. You must seek Chair's approval for proposed amendments to the research for which this approval has been given. Ethical approval is specific to this project and must not be treated as applicable to research of a similar nature. Each research project is reviewed separately and if there are significant changes to the research protocol you should seek confirmation of continued ethical approval by completing the 'Amendment Approval Request Form': <http://ethics.grad.ucl.ac.uk/responsibilities.php>
2. It is your responsibility to report to the Committee any unanticipated problems or adverse events involving risks to participants or others. The Ethics Committee should be notified of all serious adverse events via the Ethics Committee Administrator ([ethics@ucl.ac.uk](mailto:ethics@ucl.ac.uk)) immediately the incident occurs. Where the adverse incident is unexpected and serious, the Chair or Vice-Chair will decide whether the study should be terminated pending the opinion of an independent expert. The adverse event will be considered at the next Committee meeting and a decision will be made on the need to change the information leaflet and/or study protocol.

For non-serious adverse events the Chair or Vice-Chair of the Ethics Committee should again be notified via the Ethics Committee Administrator ([ethics@ucl.ac.uk](mailto:ethics@ucl.ac.uk)) within ten days of an adverse incident occurring and provide a full written report that should include any amendments to the participant information sheet and study protocol. The Chair or Vice-Chair will confirm that the incident is non-serious and report to the Committee at the next meeting. The final view of the Committee will be communicated to you.

On completion of the research you must submit a very brief report of your findings/concluding comments to the Committee, which includes in particular issues relating to the ethical implications of the research.


Yours sincerely




**Professor John Foreman**  
**Chair of the UCL Research Ethics Committee**


Academic Services, 1-19 Torrington Place (9<sup>th</sup> Floor),  
University College London  
Tel: +44 (0)20 3108 8216  
Email: [ethics@ucl.ac.uk](mailto:ethics@ucl.ac.uk)  
<http://ethics.grad.ucl.ac.uk/>

# Appendix 11: Green building projects by Bangkok's SET-listed developers

<b>1) 98 Wireless</b>		<b>Status: Certified (2017)</b>	
<b>LEED BD+C: New Construction v3 (LEED 2009)</b>			
Wireless Rd. Bangkok Thailand			
<b>Registered for LEED NC 2009 in 2012</b>			
Registration date	18/01/2012	Developer: Sansiri PCL	
Certification date	12/09/2017		
Project size	354,360 sq ft		
Space type	Multi-Family Residential		
LEED Score	44/100 Possible points		
Actions:			
<b>EA</b>	16% improvement on baseline building performance		
<b>MR</b>	10% recycled content building materials 20% regionally extracted, harvested, recovered, or manufactured materials 75% diversion of construction and demolition debris		
<b>WE</b>	50% reduction in potable landscape water use 35% reduction in baseline indoor water use		

<b>2) FYI Center</b>		<b>Status: Certified (Gold in 2016)</b>	
<b>LEED BD+C: Core and Shell v3 (LEED 2009)</b>			
Rama 4 Road, Klongtoey Bangkok, 10110 Thailand			
<b>Registered for LEED Core &amp; Shell 2009 in 2015</b>			
Registration date	12/11/2015	Developer: Univentures PCL Golden Land Property Development PCL	
Certification date	17/12/2016		
Project size	841,344 sq ft		
Space type	Office		
LEED Score	66/110 Possible points		
Actions:			
<b>EA</b>	18% improvement on baseline building performance rating		
<b>MR</b>	75% diversion of construction and demolition debris 20% recycled content building materials 20% regionally extracted, harvested, recovered, or manufactured materials		
<b>IEQ</b>	90% of occupied space has quality views 75% of occupied space has daylighting		
<b>WE</b>	40% reduction in baseline indoor water use 100% reduction in potable landscape water use		

<b>3) Mill Place Posri by LPN</b>	<b>Status: Certified (Silver in 2016)</b>
<b>LEED BD+C: Retail v3 (LEED 2009)</b>	
Muang Udon Thani Udon Thani, 40 41000 Thailand	Developer: LPN Development PCL
<b>Registered for LEED Retail NC 2009 in 2014</b>	
Registration date	10/02/2014
Certification date	12/07/2016
Project size	37,328sq ft
Space type	Retail
LEED Score	53/110 Possible points

<b>4) Unilever House</b>	<b>Status: Certified (Gold in 2016)</b>
<b>LEED ID+C: Commercial Interiors v3 - LEED 2009</b>	
161 Rama 9 Road, Huaykwang Bangkok, 10310 Thailand	
<b>Registered for LEED Commercial Interiors in 2012</b>	
Registration date	25/11/2012
Certification date	18/04/2016
Project size	191,308 sq ft
Space type	Office
LEED Score	62/110 Possible points
	Developer: Grand Canal Land PCL
<b>EA</b>	35% reduction in lighting power density
<b>MR</b>	75% diversion of construction and demolition debris 5% recycled content building materials
<b>IEQ</b>	90% of occupied space has daylighting 90% of occupied space has quality views
<b>WE</b>	40% reduction in indoor potable water use

<b>5) TICON TPARK Wangnoi2 W16</b>	<b>Status: Certified (Silver in 2016)</b>
<b>LEED BD+C: Core and Shell v3 - LEED 2009</b>	
TPARK Wangnoi2 Wangnoi Ayutthaya, 13170 Thailand	
<b>Registered for LEED Core &amp; Shell 2009 in 2014</b>	
Registration date	08/07/2014
Certification date	11/04/2016
Project size	276,606 sq ft
Space type	Warehouse and Distribution
LEED Score	51/110 Possible points
<b>EA</b>	40% improvement on baseline building performance rating 35% green power purchase
<b>MR</b>	75% diversion of construction and demolition debris 20% recycled content building materials 20% regionally extracted, harvested, recovered, or manufactured materials
<b>WE</b>	40% reduction in baseline indoor water use 50% reduction in potable landscape water use

**6) TICON Asia M2/7** **Status: Certified (2015)**

**LEED BD+C: Core and Shell v3 - LEED 2009**  
 Asia Industrial Estate  
 Bangbo Samut Prakan, 10560  
 Thailand

**Registered for LEED Core & Shell 2009 in 2014**

Registration date 07/07/2014  
 Certification date 19/08/2015  
 Project size 33,493 sq ft  
 Space type Industrial Manufacturing  
 LEED Score 44/110 Possible points

**EA** 34% improvement on baseline building performance rating

**MR** 20% recycled content building materials  
 20% regionally extracted, harvested, recovered, or manufactured materials

**WE** 40% reduction in baseline indoor water use  
 50% reduction in potable landscape water use

**7) Rojana Greenfield** **Status: Certified (Silver in 2015)**

**LEED BD+C: New Construction v3 - LEED 2009**  
 Rojana Industrial Park Phase 8/2, Plot 15, Sam Budit  
 Uthai, 13210  
 Thailand

**Registered for LEED for New Construction 2009 in 2012**

Registration date 09/08/2012  
 Certification date 07/07/2015  
 Project size 151,998 sq ft  
 Space type Industrial Manufacturing  
 LEED Score 53/110 Possible points

**EA** 22% improvement on baseline building performance rating

**MR** 20% recycled content building materials  
 20% regionally extracted, harvested, recovered, or manufactured materials  
 50% FSC-certified wood products  
 75% diversion of construction and demolition debris

**IEQ** 90% of occupied space has quality views  
 75% of occupied space has daylighting

**WE** 50% reduction in potable landscape water use  
 40% reduction in baseline indoor water use


**8) G Tower Grand Rama 9** **Status: Certification in progress (Pre-certified Gold in 2015)**


**LEED BD+C: Core and Shell v3 (LEED 2009)**  
 Rama IX Road  
 Huaykwang, 10310  
 Thailand


**Registered for LEED Core & Shell 2009 in 2014**


Registration date 10/08/2014  
 Project size 1,031,964 sq ft  
 Space type Office

Developer:  
 Grand Canal Land PCL

9) Sathorn Square		Status: Certified (Gold in 2013)
<b>LEED BD+C: Core and Shell v3 (LEED 2009)</b>		
100 North Sathorn Road Bangkok, 17 10500 Thailand		
<b>Registered for LEED Core &amp; Shell 2009 in 2009</b>		
Registration date	11/12/2009	
Certification date	03/04/2013	
Project size	1,027,273 sq ft	
Space type	Office	
LEED Score	61/110 Possible points	
<b>EA</b>	12% improvement on baseline building	
<b>MR</b>	75% diversion of construction and 20% recycled content building materials 20% regionally extracted, harvested,	
<b>IEQ</b>	90% of occupied space has quality views	
<b>WE</b>	40% reduction in baseline indoor water 100% reduction in potable landscape	
		Developer: Univentures PCL Golden Land Property Development PCL

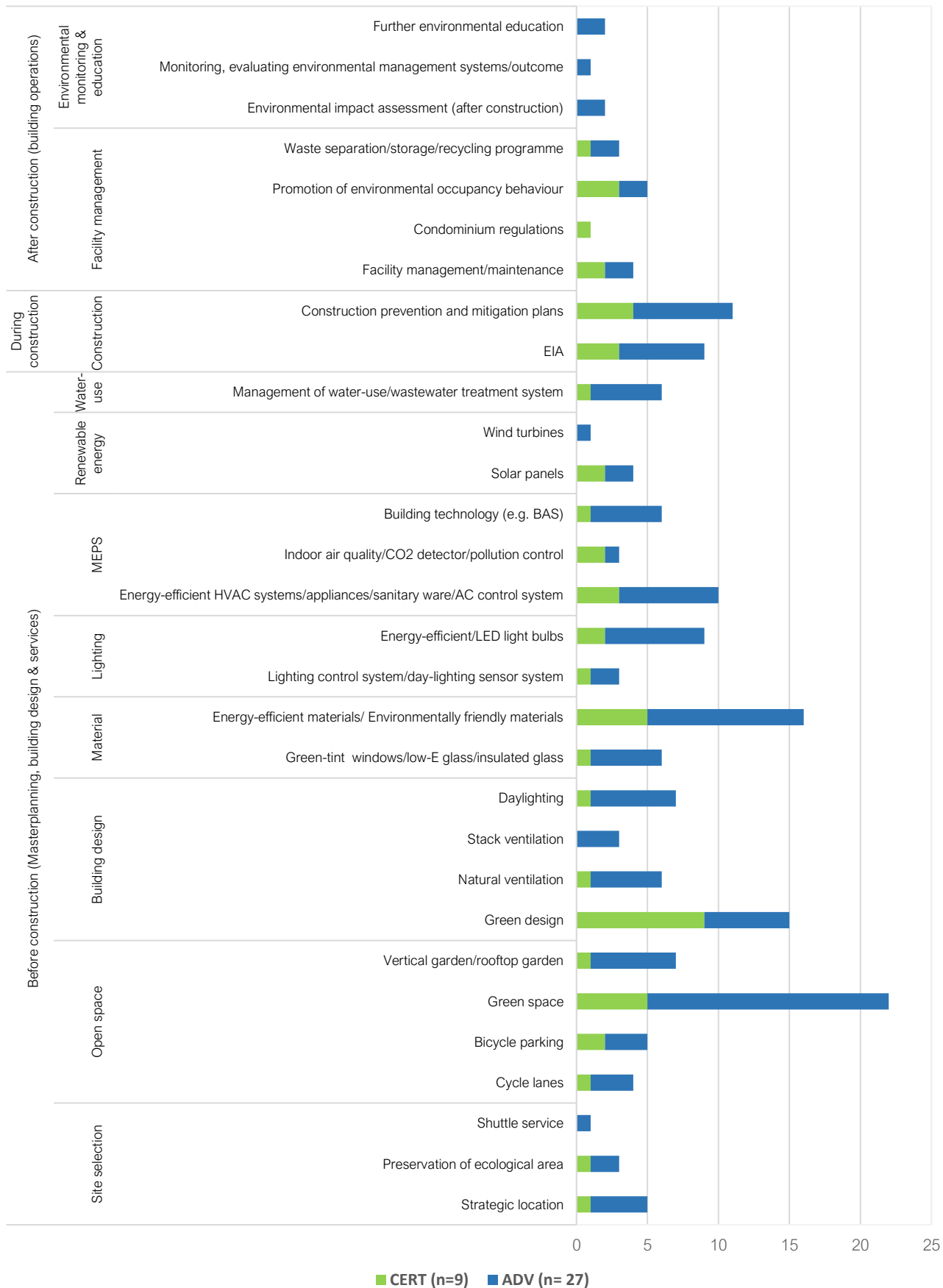
10) Park Ventures Ecoplex		Status: Certified (Platinum in 2012)
<b>LEED BD+C: Core and Shell v3 (LEED 2009)</b>		
Ploenchit Road Bangkok, 17 10330 Thailand		
<b>Registered for LEED Core &amp; Shell 2009 in 2010</b>		
Registration date	20/11/2010	
Certification date	27/11/2012	
Project size	872,084 sq ft	
Space type	Office	
LEED Score	81/110 Possible points	
<b>EA</b>	26% improvement on baseline building	
<b>MR</b>	75% diversion of construction and 20% recycled content building materials 50% FSC-certified wood products 20% regionally extracted, harvested,	
<b>IEQ</b>	90% of occupied space has quality views 75% of occupied space has daylighting	
<b>WE</b>	40% reduction in baseline indoor water 50% reduction in wastewater generation 100% reduction in potable landscape	
		Developer: Univentures PCL
<b>TREES-NC</b>		Status: Registered
Rama 4 Road, Klongtoey Bangkok, 10110 Thailand		
		Developer: Univentures PCL
Registration date	2012	
Project size	70,898 sq m	

<b>11) Singha Complex</b>	<b>Status: Certified (Gold in 2020)</b>
<b>LEED BD+C: Core and Shell v3 (LEED 2009)</b>	
Phetchaburi Tat Mai Rd. Huai Khwang, 17 10310 Thailand	
	
<b>Registered for LEED Core &amp; Shell 2009 in 2013</b>	
Registration date	30/06/2013
Certification date	22/07/2020
Project size	926,856 sq ft
Space type	Office
LEED Score	68/110 Possible points
<b>EA</b>	28% improvement on baseline building performance rating
<b>MR</b>	75% diversion of construction and demolition debris 20% recycled content building materials 20% regionally extracted, harvested, recovered, or manufactured materials
<b>WE</b>	40% reduction in baseline indoor water use 50% reduction in wastewater generation 100% reduction in potable landscape water use
Developer: Singha Estate PCL	

<b>12) Pearl Bangkok</b>	<b>Status: Certified (Gold in 2018)</b>
<b>LEED BD+C: Core and Shell v3 - LEED 2009</b>	
1177 Phaholyothin Rd., Samsen Nai, Phayathai Bangkok, 10400 Thailand	
	
<b>Registered for LEED Core &amp; Shell 2009 in 2015</b>	
Registration date	07/07/2015
Certification date	24/09/2018
Project size	507,532 sq ft
Space type	Office
LEED Score	66/110 Possible points
<b>EA</b>	14% improvement on baseline building performance rating
<b>MR</b>	75% diversion of construction and demolition debris 20% recycled content building materials 20% regionally extracted, harvested, recovered, or manufactured materials
<b>IEQ</b>	90% of occupied space has quality views
<b>WE</b>	40% reduction in baseline indoor water use 50% reduction in wastewater generation 100% reduction in potable landscape water use
Developer: Pruksa Real Estate PCL	

Source: TGBI (ca. 2015); USGBC (ca. 2015); GBIG (2020); Research fieldwork  
Data updated on 16 November 2020

## Appendix 12: Green building measures – 44 SET-listed developers



	Before construction (Masterplanning, building design & services)																				
	Site selection			Open space				Building design				Material		Lighting		MEPS			Renewable energy		Water-use
	Strategic location	Preservation of ecological area	Shuttle service	Cycle lanes	Bicycle parking	Green space	Vertical garden/rooftop garden	Green design	Natural ventilation	Stack ventilation	Daylighting	Green-tint windows/low-E glass/ insulated glass	Energy-efficient materials/ Environmentally friendly materials	Lighting control system/day-lighting sensor system	Energy-efficient/LED light bulbs	Energy-efficient HVAC systems/appliance s/sanitary ware/AC control system	Indoor air quality/CO <sub>2</sub> detector/pollution control	Building technology (e.g. BAS)	Solar panels	Wind turbines	Management of water-use/wastewater treatment system
CERT (n=9)	1	1	0	1	2	5	1	9	1	0	1	1	5	1	2	3	2	1	2	0	1
ADV (n= 27)	4	2	1	3	3	17	6	6	5	3	6	5	11	2	7	7	1	5	2	1	5
CERT+ADV (n=36)	5	3	1	4	5	22	7	15	6	3	7	6	16	3	9	10	3	6	4	1	6

<b>CERT</b>	11%	11%	0%	11%	22%	56%	11%	100%	11%	0%	11%	11%	56%	11%	22%	33%	22%	11%	22%	0%	11%
<b>ADV</b>	15%	7%	4%	11%	11%	63%	22%	22%	19%	11%	22%	19%	41%	7%	26%	26%	4%	19%	7%	4%	19%
<b>CERT+ADV</b>	<b>14%</b>	<b>8%</b>	<b>3%</b>	<b>11%</b>	<b>14%</b>	<b>61%</b>	<b>19%</b>	<b>42%</b>	<b>17%</b>	<b>8%</b>	<b>19%</b>	<b>17%</b>	<b>44%</b>	<b>8%</b>	<b>25%</b>	<b>28%</b>	<b>8%</b>	<b>17%</b>	<b>11%</b>	<b>3%</b>	<b>17%</b>

	During construction		After construction (building operations)							
	Construction		Facility management				Environmental monitoring & education			
	EIA	Construction prevention and mitigation plans	Facility management/maintenance	Condominium regulations	Promotion of environmental occupancy behaviour	Waste separation/storage/recycling programme	Environmental impact assessment (after construction)	Monitoring, evaluating environmental management systems/outcome	Further environmental education	
CERT (n=9)	3	4	2	1	3	1	0	0	0	
ADV (n= 27)	6	7	2	0	2	2	2	1	2	
CERT+ADV (n=36)	9	11	4	1	5	3	2	1	2	

<b>CERT</b>	33%	44%	22%	11%	33%	11%	0%	0%	0%
<b>ADV</b>	22%	26%	7%	0%	7%	7%	7%	4%	7%
<b>CERT+ADV</b>	<b>25%</b>	<b>31%</b>	<b>11%</b>	<b>3%</b>	<b>14%</b>	<b>8%</b>	<b>6%</b>	<b>3%</b>	<b>6%</b>

Source: Research fieldwork



# Appendix 13: Overview of CMP codes

		CMP									
		BUSINESS VALUES				SOCIAL & ENVIRONMENTAL CONTRIBUTION		PRODUCT & SERVICES		CORPORATE GOVERNANCE	
		Investment relations	Business growth/ leadership	Promotes creativity /innovation	International Standard	Social Contribution/ responsibility	Environmental Contribution/ responsibility	Delivering quality	Delivering style	Good corporate governance	Transparency
CERT	RES		•	•		•	•	•			
CERT	RES		•	•	•	•	•			•	
CERT	RES		•		•	•					
CERT	COM			•	•	•	•	•		•	
CERT	IND	•	•					•			
CERT	IND	•									
CERT	MIX		•		•	•		•		•	•
CERT	MIX	•	•		•			•		•	
CERT	MIX		•		•			•		•	
ADV	RES	•	•							•	•
ADV	RES		•					•			
ADV	RES			•				•			
ADV	RES	•				•		•			
ADV	RES		•	•		•	•	•		•	•
ADV	RES		•	•		•		•			
ADV	RES			•		•		•			
ADV	RES	•	•	•		•	•	•		•	•
ADV	COM	•	•			•	•			•	•
ADV	COM	•	•		•					•	•
ADV	COM					•				•	•
ADV	IND		•	•	•	•	•			•	
ADV	MIX			•	•	•	•	•			•
ADV	MIX	•	•		•	•	•	•		•	•
ADV	MIX				•						
ADV	MIX		•	•		•		•			•
ADV	MIX		•		•	•	•	•			
ADV	MIX			•	•	•	•	•			
ADV	MIX	•	•			•	•	•			•
ADV	MIX		•	•	•	•	•	•		•	•
ADV	MIX		•		•	•	•	•		•	•
ADV	MIX	•	•			•	•	•		•	•
NON	RES		•			•	•	•	•		
NON	RES	•		•			•	•			
NON	RES					•	•				
NON	COM	•	•			•	•			•	
NON	COM		•			•	•				
NON	MIX	•	•						•		
NON	MIX	•	•					•			
NON	MIX	•	•		•	•	•		•	•	
n=44		16	31	18	16	31	22	24	2	18	15
		36%	70%	41%	36%	70%	50%	55%	5%	41%	34%

% of response by level of green building

	CERT	ADV	NON
33%	78%	33%	67%
30%	67%	52%	33%
63%	75%	13%	13%
56%	33%	67%	33%
78%	52%	56%	41%
63%	63%	38%	25%
56%	11%	48%	13%

% of response by industry sector

	RES	COM	IND	MIX
25%	63%	56%	13%	69%
50%	67%	17%	33%	83%
67%	67%	33%	33%	33%
37%	79%	37%	58%	74%
50%	63%	5%	47%	53%
6%	25%	19%	67%	33%

<b>Total (n=44)</b>	<b>36%</b>	<b>70%</b>	<b>41%</b>	<b>36%</b>	<b>70%</b>	<b>50%</b>	<b>55%</b>	<b>5%</b>	<b>41%</b>	<b>34%</b>
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Source: Research fieldwork

# Appendix 14: Overview of CER codes

		CER									
		CER ADMINVALUES					RECOGNITION				
		CSR report	CSR in annual report	CSER in message from chairman	Own CSR committee	Business integrity	CSR as morality, ethics, altruism	Recognises importance of social responsibility	Recognises importance of environmental responsibility	Conscious of business practice on environment	Conscious of business practice on society
CERT	RES		•	•	•		•	•	•	•	•
CERT	RES	•	•	•				•	•	•	
CERT	RES		•	•	•		•	•	•		
CERT	COM		•	•			•	•	•		
CERT	IND							•			
CERT	IND		•				•				
CERT	MIX		•	•			•	•	•		
CERT	MIX		•					•	•		
CERT	MIX	•	•	•	•		•		•	•	
ADV	RES		•			•	•				
ADV	RES		•					•	•		
ADV	RES			•							
ADV	RES										
ADV	RES		•				•				•
ADV	RES	•	•	•					•		
ADV	RES		•	•			•				
ADV	RES		•					•	•		
ADV	RES						•	•			
ADV	RES		•								
ADV	RES		•				•	•			
ADV	COM		•				•	•	•		
ADV	COM	•	•	•							
ADV	COM							•	•	•	•
ADV	IND	•	•	•				•	•		
ADV	MIX	•	•	•	•		•	•	•	•	•
ADV	MIX		•	•				•			
ADV	MIX					•		•	•		
ADV	MIX		•				•	•	•		
ADV	MIX		•		•		•	•	•		•
ADV	MIX		•	•	•		•	•	•		•
ADV	MIX		•			•	•	•			
ADV	MIX		•								
ADV	MIX	•	•	•	•			-	-	•	
ADV	MIX		•	•			•	•	-		
ADV	MIX	•	•	•			•	•	•	•	•
ADV	MIX		•				•	•	•		
ADV	MIX		•				•	•	•		
NON	RES		•								
NON	RES						•				
NON	RES										
NON	COM		•						•		
NON	COM			•							
NON	MIX										
NON	MIX		•					•	•		
NON	MIX		•		•		•	•	•		
n=44		8	33	18	8	3	18	25	26	10	8
		18%	75%	41%	18%	7%	41%	57%	59%	23%	18%

% of response by level of green building

	n	CSR report	CSR in annual report	CSER in message from chairman	Own CSR committee	Business integrity	CSR as morality, ethics, altruism	Recognises importance of social responsibility	Recognises importance of environmental responsibility	Conscious of business practice on environment	Conscious of business practice on society
CERT	9	22%	89%	67%	33%		56%	78%	78%	33%	22%
ADV	27	22%	78%	41%	15%	11%	41%	59%	56%	26%	22%
NON	8		50%	13%	13%		25%	25%	50%		

% of response by industry sector

	n	CSR report	CSR in annual report	CSER in message from chairman	Own CSR committee	Business integrity	CSR as morality, ethics, altruism	Recognises importance of social responsibility	Recognises importance of environmental responsibility	Conscious of business practice on environment	Conscious of business practice on society
RES	16	13%	69%	38%	13%	6%	44%	44%	44%	19%	13%
COM	6	17%	67%	50%			33%	50%	67%	17%	17%
IND	3	33%	67%	33%			33%	33%	67%		
MIX	19	21%	84%	42%	32%	11%	42%	74%	68%	32%	26%
<b>Total (n=44)</b>		<b>18%</b>	<b>75%</b>	<b>41%</b>	<b>18%</b>	<b>7%</b>	<b>41%</b>	<b>57%</b>	<b>59%</b>	<b>23%</b>	<b>18%</b>

Source: Research fieldwork



CER							
EDUCATION							
Promote staff internal environmental awareness	Raise public awareness on SER	Seek innovative CSER solutions	Distribution/ knowledge-sharing of CSER solutions	Open house for university students	Collaboration with academia	Collaboration with external organisation	Green building measures
		•			•		•
		•	•			•	•
						•	•
•	•		•			•	•
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•	•	•	•			•	•
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		•	•			•	•
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•	•	•	•				•
•							•
•							
•							
•	•						
•		•					
21	12	9	7	3	4	8	36
48%	27%	20%	16%	7%	9%	18%	82%

33%	22%	33%	33%	11%	11%	44%	100%
52%	33%	19%	15%	7%	11%	15%	100%
50%	13%	13%					

25%	13%	25%	13%	6%	13%	19%	81%
67%	33%	17%	17%		17%	33%	67%
						33%	100%
68%	42%	21%	21%	11%	5%	11%	84%
<b>48%</b>	<b>27%</b>	<b>20%</b>	<b>16%</b>	<b>7%</b>	<b>9%</b>	<b>18%</b>	<b>82%</b>

## Appendix 15: CSR activity – 44 SET-listed developers

		Social										
		Donation		Community			Youth		Health	Culture		
		Financial donations (social causes)	Other donations (social causes)	Volunteering	Community development	National holiday events	Public sports events (e.g. marathon, biking)	Education sponsorship	Charitable sponsorship (Children and youth)	Healthcare contributions	Religious activities	Arts and culture
CERT	RES		*	*	*	*	*	*	*	*	*	
CERT	RES	*	*		*	*	*	*	*	*	*	
CERT	RES							*	*			
CERT	COM	*		*	*			*	*			
CERT	IND											
CERT	IND	*	*				*	*				
CERT	MIX	*	*		*		*	*				
CERT	MIX					*					*	
CERT	MIX				*							
ADV	RES					*				*	*	
ADV	RES	*	*					*	*			
ADV	RES	*	*					*	*	*	*	
ADV	RES											
ADV	RES	*				*		*	*			
ADV	RES	*	*	*				*	*			
ADV	RES	*	*			*		*	*	*	*	
ADV	RES	*	*		*	*		*	*	*	*	
ADV	RES	*	*		*	*		*	*	*	*	
ADV	COM	*	*		*	*		*	*	*	*	*
ADV	COM	*	*		*	*		*	*	*	*	*
ADV	COM	*	*		*	*		*	*	*	*	*
ADV	IND	*	*		*	*	*	*	*	*	*	*
ADV	MIX	*	*	*	*			*	*	*	*	*
ADV	MIX	*	*	*	*			*	*	*	*	*
ADV	MIX		*	*	*			*	*	*	*	*
ADV	MIX	*	*	*	*			*	*	*	*	*
ADV	MIX	*	*	*	*			*	*	*	*	*
ADV	MIX	*	*	*	*			*	*	*	*	*
ADV	MIX	*	*	*	*			*	*	*	*	*
ADV	MIX	*	*	*	*			*	*	*	*	*
ADV	MIX	*	*	*	*			*	*	*	*	*
ADV	MIX	*	*	*	*			*	*	*	*	*
ADV	MIX	*	*	*	*			*	*	*	*	*
ADV	MIX	*	*	*	*			*	*	*	*	*
ADV	MIX	*	*	*	*			*	*	*	*	*
ADV	MIX	*	*	*	*			*	*	*	*	*
NON	RES	*	*			*		*	*	*	*	*
NON	RES	*	*			*		*	*	*	*	*
NON	RES											
NON	COM					*		*	*	*	*	*
NON	COM		*			*		*	*	*	*	*
NON	MIX					*		*	*	*	*	*
NON	MIX	*	*	*	*	*	*	*	*	*	*	*
NON	MIX	*	*	*	*	*	*	*	*	*	*	*
<b>Total (n=44)</b>		<b>22</b>	<b>20</b>	<b>8</b>	<b>15</b>	<b>15</b>	<b>7</b>	<b>33</b>	<b>27</b>	<b>18</b>	<b>18</b>	<b>3</b>
		50%	45%	18%	34%	34%	16%	75%	61%	41%	41%	7%
% of response by level of green building												
<b>CERT</b>	<b>9</b>	44%	44%	22%	56%	33%	33%	67%	56%	22%	33%	
<b>ADV</b>	<b>27</b>	56%	44%	15%	30%	30%	15%	78%	63%	56%	37%	7%
<b>NON</b>	<b>8</b>	38%	50%	25%	25%	50%		75%	63%	13%	63%	13%
% of response by industry sector												
RES	16	50%	44%	13%	19%	50%	13%	81%	63%	44%	50%	
COM	6	50%	50%	17%	17%	50%	33%	83%	83%	67%	50%	17%
IND	3	67%	67%		33%	33%	33%	67%	33%	33%	33%	
MIX	19	47%	42%	26%	53%	16%	11%	68%	58%	32%	32%	11%
<b>Total (n=44)</b>		<b>50%</b>	<b>45%</b>	<b>18%</b>	<b>34%</b>	<b>34%</b>	<b>16%</b>	<b>75%</b>	<b>61%</b>	<b>41%</b>	<b>41%</b>	<b>7%</b>
o/w CSR (n= 33)		67%	61%	24%	45%	45%	21%	100%	82%	55%	55%	9%

Source: Research fieldwork

Building & Construction			Environment						
Greening public areas	Community infrastructure projects	Environmental or green design	Reforestation	Wildlife-related activities	Promoting eco-tourism	Promoting environmental behaviour	Environmental clean-ups	Plant growing activities	Sustainability education
	•	•	•	•		•	•		•
						•			•
						•			
						•			
			•						
		•	•						
		•	•	•	•		•		•
									•
	•								
		•							
		•	•	•					
		•	•	•					
		•	•	•			•	•	
		•	•	•			•	•	
		•	•	•		•			
		•	•	•		•	•		•
	•					•			
		•				•			
	•								•
		•	•						•
		•		•		•			•
•	•	•		•		•			•
	•	•	•	•		•			•
							•		
		•	•	•					
1	7	15	13	10	1	11	6	3	8
2%	16%	34%	30%	23%	2%	25%	14%	7%	18%
	11%	33%	33%	22%	11%	44%	22%	11%	22%
4%	19%	41%	30%	26%		26%	11%	7%	22%
	13%	13%	25%	13%			13%		
	19%	25%	25%	19%		19%	13%	19%	13%
		17%	17%	17%		50%	17%		
		33%	67%	33%			33%		
5%	21%	47%	32%	26%	5%	26%	11%		32%
<b>2%</b>	<b>16%</b>	<b>34%</b>	<b>30%</b>	<b>23%</b>	<b>2%</b>	<b>25%</b>	<b>14%</b>	<b>7%</b>	<b>18%</b>
3%	21%	45%	39%	30%	3%	33%	18%	9%	24%

# Appendix 16: Overview of IEA codes

		IEA							
		PRO-ENVIRONMENTAL BEHAVIOUR			TRAINING & CORPORATE POLICY				
		Promote sense of environmental responsibility to staff	Promote eco-friendly behaviour change	Raise awareness through CSR activities	Raising internal environ. Awareness through knowledge sharing	Training	Recruitment of staff with ethics & responsibility	Policy guide	Total IEA
CERT	RES					•			•
CERT	RES								
CERT	RES								
CERT	COM	•				•	•		•
CERT	IND								
CERT	IND								
CERT	MIX	•		•					•
CERT	MIX								
CERT	MIX	•							•
ADV	RES					•			•
ADV	RES	•							•
ADV	RES								
ADV	RES		•		•				•
ADV	RES	•	•			•			•
ADV	RES								
ADV	RES								
ADV	RES	•				•			•
ADV	COM			•		•			•
ADV	COM					•			•
ADV	COM								
ADV	IND	•						•	•
ADV	MIX	•	•	•					•
ADV	MIX								
ADV	MIX	•	•		•	•		•	•
ADV	MIX	•		•		•			•
ADV	MIX	•						•	•
ADV	MIX	•	•	•		•			•
ADV	MIX							•	•
ADV	MIX	•	•			•			•
ADV	MIX	•	•	•				•	•
ADV	MIX	•	•	•				•	•
NON	RES		•	•			•		•
NON	RES								
NON	RES			•	•				•
NON	COM								
NON	COM								
NON	MIX								
NON	MIX	•		•	•	•		•	•
NON	MIX	•							

n=44

18	9	10	4	13	2	8	24
41%	20%	23%	9%	30%	5%	18%	55%

% of response by level of green building

Level	n	Promote sense of environmental responsibility to staff	Promote eco-friendly behaviour change	Raise awareness through CSR activities	Raising internal environ. Awareness through knowledge sharing	Training	Recruitment of staff with ethics & responsibility	Policy guide	Total IEA
CERT	9	33%		11%		22%	11%		44%
ADV	27	48%	30%	22%	7%	37%		26%	63%
NON	8	25%	13%	38%	25%	13%	13%	13%	38%

% of response by industry sector

Sector	n	Promote sense of environmental responsibility to staff	Promote eco-friendly behaviour change	Raise awareness through CSR activities	Raising internal environ. Awareness through knowledge sharing	Training	Recruitment of staff with ethics & responsibility	Policy guide	Total IEA
RES	16	19%	19%	13%	13%	25%	6%		44%
COM	6	17%		17%		50%	17%		50%
IND	3	33%						33%	33%
MIX	19	68%	32%	37%	11%	32%		37%	68%

Total (n=44)	41%	20%	23%	9%	30%	5%	18%	55%
o/w IEA (n=24)	75%	38%	42%	17%	54%	8%	33%	100%

Source: Research fieldwork

# Appendix 17: Overview of CRO codes

		CRO				
		PROMOTES INNOVATION				
		Promotes creativity/innovation	Innovation in CSR	Innovation in Strategy	Innovation in Product	Innovation in Process
CERT	RES	•	•	•	•	•
CERT	RES	•			•	•
CERT	RES		•			
CERT	COM	•	•		•	•
CERT	IND					
CERT	IND					
CERT	MIX				•	
CERT	MIX					
CERT	MIX	•	•	•	•	•
ADV	RES					
ADV	RES		•			
ADV	RES	•				
ADV	RES	•				
ADV	RES	•				
ADV	RES	•	•		•	
ADV	RES	•			•	
ADV	RES		•		•	
ADV	RES	•			•	
ADV	COM					
ADV	COM					
ADV	COM	•			•	
ADV	IND	•		•		•
ADV	MIX	•			•	
ADV	MIX				•	
ADV	MIX	•	•		•	•
ADV	MIX		•			
ADV	MIX	•	•			
ADV	MIX				•	
ADV	MIX	•			•	
ADV	MIX	•	•	•	•	•
ADV	MIX		•		•	
ADV	MIX	•	•		•	
ADV	MIX	•				
NON	RES					
NON	RES	•				
NON	RES					
NON	COM					
NON	COM					
NON	MIX	•				
NON	MIX					
NON	MIX		•			

n=44	22	15	5	18	8
	50%	34%	11%	41%	18%

% of response by level of green building

Level	n	Promotes creativity/innovation	Innovation in CSR	Innovation in Strategy	Innovation in Product	Innovation in Process
CERT	9	44%	44%	22%	56%	44%
ADV	27	59%	37%	11%	48%	15%
NON	8	25%	13%			

% of response by industry sector

Sector	n	Promotes creativity/innovation	Innovation in CSR	Innovation in Strategy	Innovation in Product	Innovation in Process
RES	16	56%	31%	6%	38%	13%
COM	6	33%	17%		33%	17%
IND	3	33%		33%		33%
MIX	19	53%	47%	16%	53%	21%
<b>Total (n=44)</b>		<b>50%</b>	<b>34%</b>	<b>11%</b>	<b>41%</b>	<b>18%</b>

Source: Research fieldwork





# Appendix 18: Overview of MO codes

		MO							
		Socio-environmental focus		Consumer focused					
		Community	Energy/ Environment	Design is priority	Customer is priority/consumer demands	Quality/function /safety	Consumer priority + Quality	LEED Development	Profitability
CERT	RES	•	•						
CERT	RES				•		•		
CERT	COM		•						
CERT	IND	•							
CERT	MIX		•			•	•		
CERT	MIX							•	
ADV	RES				•		•		
ADV	RES				•	•	•		
ADV	RES				•	•	•		•
ADV	COM				•	•	•		
ADV	COM	•					•		
ADV	IND		•						
ADV	MIX	•			•		•		•
ADV	MIX		•		•	•	•		
ADV	MIX			•					
ADV	MIX					•	•		
ADV	MIX								•
ADV	MIX		•						
NON	RES				•	•	•		•
NON	COM	UNDISCLOSED							
NON	MIX								•
n= 21		4	6	1	9	7	12	1	5
		19%	29%	5%	43%	33%	57%	5%	24%

% of response by level of green building

Level	n	Community	Energy/Environment	Design is priority	Customer is priority/consumer demands	Quality/function/safety	Consumer priority + Quality	LEED Development	Profitability
CERT	6	33%	50%		17%	17%	33%	17%	
ADV	13	15%	23%	8%	54%	38%	69%		23%
NON	3				33%	33%	33%		67%

% of response by industry sector

Industry Sector	n	Community	Energy/Environment	Design is priority	Customer is priority/consumer demands	Quality/function/safety	Consumer priority + Quality	LEED Development	Profitability
RES	7	14%	14%		86%	43%	86%		29%
COM	3	33%	33%		33%	33%	67%		
IND	2	50%	50%						
MIX	9	11%	33%	11%	22%	33%	44%	11%	33%

Source: Research fieldwork

## Appendix 19: Overview of MEC & MEO codes

		MEC				MEO									
		Only business justification	"We do what we can"	Committed to the environment (though may not be through green building)	Committed+ We do what we can	Environmental practice can help business			Benefit of environmental practice is dependent on other variables			Environmental practice puts business at a disadvantage			
						Can help	Business benefit - branding/brand equity/marketing	Business benefit - Market demand/other financial objectives	Dependent	Dependent on statutory requirement/ government	Consumer-dependent	Disadvantage	Increased costs/Lose market competition/difficult	No return on investment	
CERT	RES			*	*				*		*				
CERT	RES		*	*	*	*	*	*	*		*				
CERT	COM			*	*	*	*	*							
CERT	IND			*	*	*	*	*							
CERT	MIX			*	*	*	*	*							
CERT	MIX			*	*	*	*	*							
ADV	RES	*				*	*	*	*	*	*	*	*	*	
ADV	RES	*				*	*	*	*	*	*	*	*	*	
ADV	RES	*	*		*	*	*	*	*	*	*	*	*	*	
ADV	RES	*	*		*	*	*	*	*	*	*	*	*	*	
ADV	COM			*	*	*	*	*							
ADV	COM	*	*	*	*	*	*	*							
ADV	IND			*	*	*	*	*							
ADV	MIX		*		*	*	*	*	*	*	*	*	*	*	
ADV	MIX			*	*	*	*	*							
ADV	MIX		*		*	*	*	*			*	*	*	*	
ADV	MIX	*		*	*	*	*	*	*	*	*	*	*	*	
ADV	MIX	*		*	*	*	*	*							
ADV	MIX		*	*	*	*	*	*							
NON	RES		*		*	*	*	*	*	*	*	*	*	*	
NON	COM		*		*	*	*	*	*	*	*	*	*	*	
NON	MIX	*			*	*	*	*	*	*	*	*	*	*	
n=	22	8	8	12	17	19	18	8	10	5	7	6	5	1	
Total		36%	36%	55%	77%	86%	82%	36%	45%	23%	32%	27%	23%	5%	
% of response by level of green building															
CERT	6		17%	100%	100%	83%	83%	33%	33%		33%				
ADV	13	54%	38%	46%	69%	92%	85%	46%	46%	38%	23%	38%	31%	8%	
NON	3	33%	67%		67%	67%	67%		67%		67%	33%	33%		
% of response by industry sector															
RES	7	57%	57%	29%	71%	71%	71%	29%	86%	43%	57%	57%	43%	14%	
COM	4	25%	50%	75%	75%	75%	50%	50%	25%		25%	25%	25%		
IND	2			100%	100%	100%	100%	50%							
MIX	9	33%	22%	56%	78%	100%	100%	33%	33%	22%	22%	11%	11%		

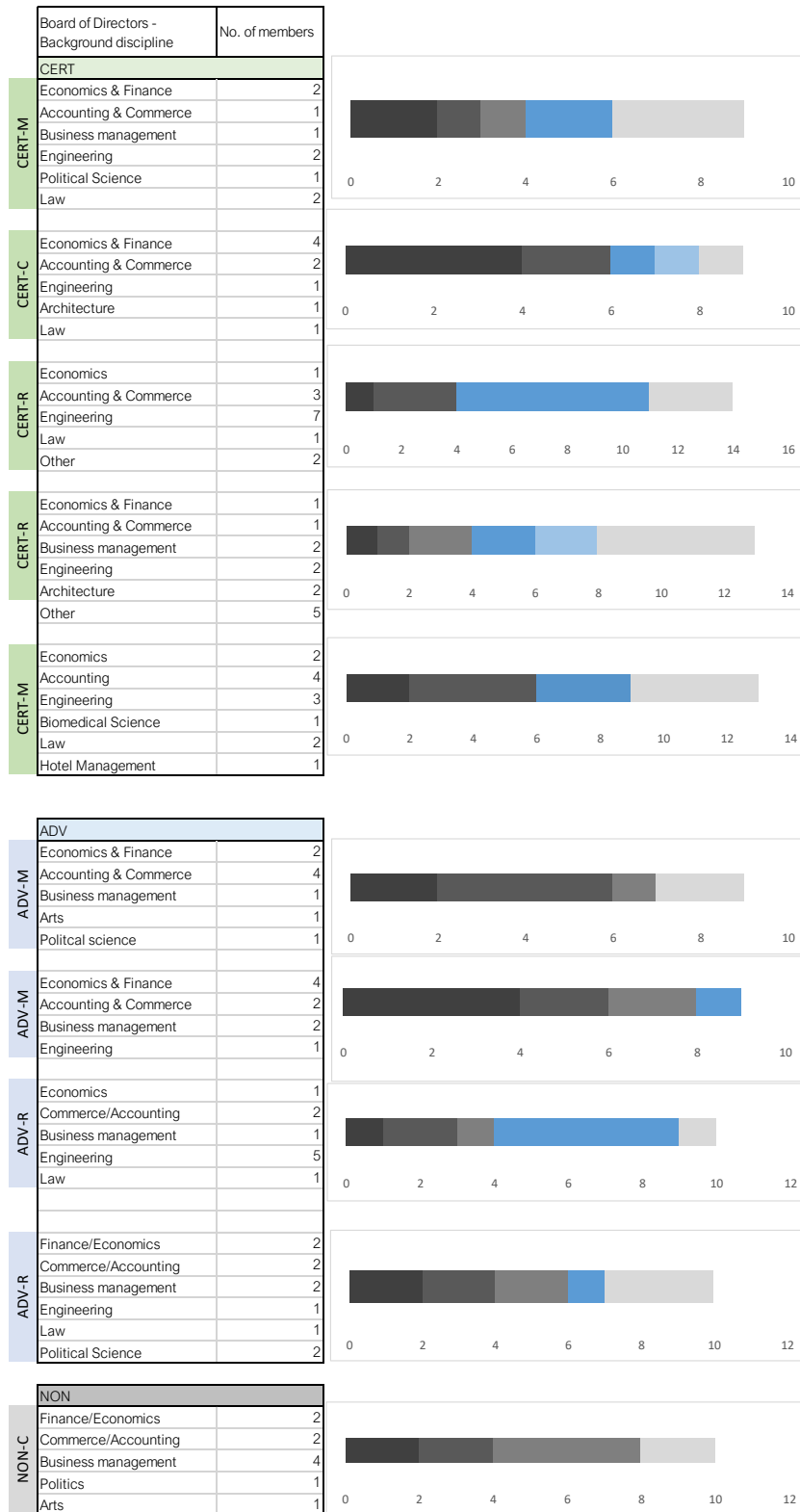
Source: Research fieldwork

## Appendix 20: Overview of PGBP codes

		PGBP																					
		Feasibility											Drivers										
		Feasible	Feasible with condition					Not feasible	Dependent on industry sector			Role of government									Market	Private	
		Feasible/ no conflict	Considers operating costs/returns/comprehensively in calculation make feasible	Long-term overcomes conflict/ Easier for long term project	Feasible for overseas (regional/ international) market	Feasible for high-end market	More incentive for bigger developers	Not feasible	Dependent on developer type (business model, industry sector)	Different for residential	Easier for commercial/ leasehold	Easier/applicable for industrial projects	Role of government	Promotor/ drive	Regulation	Stage for recognition	Incentives/ subsidies/ rewards	Lead by example/ exemplar	Data sharing	Monitoring & report	Gov. punishments	Role of consumer /market	Role of private sector
CERT	RES	•	•	•	•			•	•	•		•		•								•	•
CERT	RES											•	•									•	
CERT	COM	•	•		•			•	•	•		•				•						•	
CERT	IND											•		•			•					•	•
CERT	MIX	•	•		•	•		•		•		•	•			•						•	•
CERT	MIX	•	•	•				•				•	•									•	•
ADV	RES							•			•	•			•	•			•				
ADV	RES							•	•	•	•	•			•			•		•		•	
ADV	RES			•				•	•	•	•	•			•							•	
ADV	RES							•				•	•	•		•						•	
ADV	COM							•				•				•						•	•
ADV	COM							•				•				•						•	•
ADV	IND	•		•				•			•	•	•									•	•
ADV	MIX	•			•	•		•		•		•			•	•						•	•
ADV	MIX							•	•	•		•			•	•						•	•
ADV	MIX	•	•		•	•		•	•	•		•			•	•					•	•	•
ADV	MIX				•			•		•		•			•	•					•	•	•
ADV	MIX	•			•			•		•		•			•	•						•	•
ADV	MIX			•		•		•		•		•			•	•						•	•
NON	RES							•	•	•		•	•									•	
NON	COM							•	•	•		•	•			•						•	
NON	MIX							•	•	•	•	•	•									•	
n=	22	8	5	5	6	4	2	3	16	7	11	4	20	8	7	2	13	1	1	1	1	14	8
		36%	23%	23%	27%	18%	9%	14%	73%	32%	50%	18%	91%	36%	32%	9%	59%	5%	5%	5%	5%	64%	36%
% of response by level of green building																							
CERT	6	67%	67%	33%	50%	17%			67%	33%	50%		100%	50%	33%		33%	17%				83%	67%
ADV	13	33%	8%	25%	25%	25%	17%	8%	75%	25%	42%	25%	100%	25%	42%	17%	83%		8%	8%	8%	58%	33%
NON	3							67%	100%	67%	100%	33%	67%	67%			33%					67%	
% of response by industry sector																							
RES	7	14%	14%	29%	14%			14%	71%	43%	43%	29%	100%	43%	57%		43%		14%	14%		57%	14%
COM	4	25%	25%		25%			25%	75%	25%	50%		75%	50%			75%					75%	25%
IND	2	50%		50%					50%			50%	100%	50%	50%		0%	50%				50%	100%
MIX	9	56%	33%	22%	44%	44%	22%	11%	78%	33%	67%	11%	89%	22%	22%	22%	78%				11%	67%	44%

Source: Research fieldwork

## Appendix 21: Sample of top management background discipline (SET-listed developers)



## Appendix 22: Property laws in 17 countries

Country	Price (sq.m.)	Rental Yield	Rent/month	Income Tax	Roundtrip Cost	Capital Gains Tax	Landlord and Tenant Law	Rent control
UK	\$20,190	2.61%	\$5,272	0.00%	8.03%	28.00%	Pro-Landlord	Free negotiation
Canada	\$10,657	3.95%	\$4,211	25.00%	8.05%	25.00%	Pro-Tenant	The initial rent can be freely negotiated in all provinces, except in some provinces like Quebec, where initially negotiated rents can be appealed if they are higher than a rent charged by the same landlord for the same apartment within the previous 12 months.
U.S.	\$17,191	2.91%	\$4,942	30.00%	9.82%	5.00%	Pro-Tenant	There are subtle rent control laws in 5 states; however their laws also have provisions to give landlords a fair return of investment.
Germany	\$4,326	3.99%	\$1,440	2.71%	12.71%	0.00%	Pro-Tenant	While rents can be freely agreed, "exorbitant" rents can subsequently be appealed. Rent increases are controlled, and cannot exceed more than 20% in nominal terms (less in real terms) over three years.
India	\$15,525	2.32%	\$2,275	7.87%	11.88%	30.00%	Pro-Tenant	Rent control; For Delhi, the maximum annual rent is 10% of the cost of construction and the market price of the land. Pro-tenant laws in India often inhibit rental market
Malaysia	\$3,441	3.72%	\$1,281	22.40%	5.18%	5.00%	Pro-Tenant	Rent control was abolished in 2000; However although the law states that rents can be freely negotiated, rent increases can be appealed to the courts, if the tenant feels the increase is too high.
<b>Thailand</b>	<b>\$3,952</b>	<b>5.13%</b>	<b>\$2,029</b>	<b>2.73%</b>	<b>10.90%</b>	<b>30.00%</b>	<b>Pro-Landlord</b>	<b>Given the absence of formal legislation, Thailand is pro-landlord (changed previously)</b>
Singapore	\$13,748	2.54%	\$3,498	15.13%	23.95%	0.00%	Pro-Landlord	Can freely determine the rent and the rate of rent increase. Rent control abolished in 2001.
Taiwan	\$7,112	1.57%	\$1,117	25.00%	9.93%	20.00%	Pro-Landlord/Pro-tenant	There is rent-control, and tenants have security of tenure. If the tenancy laws were properly followed, Taiwan could be regarded as pro-tenant.
Brazil	\$4,370	n.a.	n.a.	15.00%	11.50%	15.00%	Pro-Landlord	-
S. Korea	n.a.	n.a.	\$2,778	0.00%	23.98%	42.00%	Pro-Landlord	Key Money (rent paid upfront for Expats)
UAE	\$5,918	5.19%	\$3,070	5.00%	6.01%	0.00%	Pro-Tenant	Rent cap: 5% in 2008
Sweden	\$6,991	n.a.	n.a.	0.00%	8.25%	30.00%	Strongly Pro-Tenant	Strictly regulated rental market. Rents are set far below reasonable returns-on-investment; system is enforced by Rent Tribunals.
China	\$11,829	2.10%	\$2,479	5.00%	5.35%	20.00%	Pro-Landlord	-
Cambodia	\$2,913	5.33%	\$1,553	14.00%	7.70%	20.00%	Pro-Landlord	Free negotiation
Phillipines	\$3,952	6.13%	\$2,422	4.06%	8.63%	32.00%	Pro-Landlord	The parties can freely determine the amount or rent and rent increases. At the upper end of the market, the landlord receives one year's rent in advance in post-dated cheques.
Vietnam	n.a.	n.a.	\$1,148	20.00%	5.57%	0.10%	Strongly Pro-Landlord	Freely negotiated by both parties. It is usually fixed for the duration of the lease term, typically 1 to 2 years. Rents are paid well in advance and interest is charged on late payments.

Source: Global Property Guide (ca. 2018)