

# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	Background	1
1.2	Research Problem	2
1.3	Knowledge Gap	3
1.4	Aims and Objectives	4
1.5	Research Hypotheses	4
1.6	Contribution to Practice	4
1.7	Research Scope and Limitations	5
1.8	Research Stages	5
1.9	Expected Significance and Contribution of the Research to Knowledge and Practices	6
1.10	Problems Encountered and the Actions Taken to Overcome Them	7
1.11	Structure of the Research	8
	References	10
<b>2</b>	<b>Flight-Time, Geographical Distance and Related Issues</b>	<b>13</b>
2.1	Introduction	13
2.2	The Associated Attributes of Distance	13
2.3	Flight-Time and Distance	14
2.3.1	Time	14
2.3.2	Flight Routes	15
2.3.3	The Aircraft's Speed	16
2.3.4	Climate	17
2.3.5	Time-Zones	17
2.3.6	Jet-Lag and Circadian Rhythm	17
2.4	Globalization and Geography	18
2.5	Manifestations of Distance	18
2.5.1	Cultural Distance	19
2.5.2	Administrative/Attributional Distance	21

2.5.3	Geographical Distance, Gravitational Distance and Topological Distance . . . . .	22
2.5.4	Economic Distance . . . . .	25
2.5.5	Technological Distance . . . . .	26
2.5.6	Socio-demographical Distance . . . . .	27
2.5.7	Relational/Affinity Distance . . . . .	27
2.5.8	Organizational Distance . . . . .	28
2.6	Summary . . . . .	33
	References . . . . .	34
<b>3</b>	<b>Core and Peripheral System of Cities . . . . .</b>	<b>37</b>
3.1	Introduction . . . . .	37
3.2	Human and Economic Geography . . . . .	37
3.3	Geo-politics . . . . .	38
3.4	Geo-economics and Spatial Economics . . . . .	39
3.5	Transportation . . . . .	40
3.6	Location . . . . .	41
3.7	Localization . . . . .	42
3.7.1	Virtual Clusters . . . . .	46
3.7.2	Paradox of Globalization and Localization . . . . .	46
3.8	Agglomeration . . . . .	47
3.9	Centrality . . . . .	49
3.10	Complementarities of Services . . . . .	50
3.11	System of Cities . . . . .	50
3.12	Firm's Behavior . . . . .	52
3.13	Summary . . . . .	54
	References . . . . .	55
<b>4</b>	<b>Internationalization of Singaporean A/E Firms . . . . .</b>	<b>59</b>
4.1	Introduction . . . . .	59
4.2	Discontinuities or Inter-connectivity . . . . .	59
4.3	Economics and Internationalization . . . . .	60
4.4	MNE and FDI . . . . .	61
4.4.1	FDI . . . . .	66
4.4.2	Trade-Agreements . . . . .	66
4.4.3	Borne Global . . . . .	67
4.4.4	Embeddedness . . . . .	67
4.4.5	Barriers to Entry . . . . .	67
4.5	International Construction . . . . .	68
4.6	Singapore-Domiciled Service Firms . . . . .	68
4.6.1	Singapore's Construction Industry . . . . .	69
4.6.2	Singapore's Construction Exports . . . . .	70
4.6.3	Architectural and Engineering Services . . . . .	71
4.6.4	A/E Communications . . . . .	71
4.6.5	Supply-Chain of A/E Consultancy Services . . . . .	71
4.6.6	Role of the Government . . . . .	72

4.7	Internationalization Risks . . . . .	73
4.7.1	Risks and Uncertainty . . . . .	73
4.7.2	Country or City Risk . . . . .	74
4.7.3	Forecasting . . . . .	74
4.7.4	Risk Management . . . . .	74
4.8	Market Entry . . . . .	75
4.8.1	Entry Mode . . . . .	75
4.8.2	Progression of Entry Modes . . . . .	76
4.9	Eclectic-Diamond Framework . . . . .	77
4.9.1	Eclectic Paradigm . . . . .	77
4.9.2	Diamond Theory . . . . .	79
4.9.3	Combining the Eclectic Paradigm with Diamond Theory . . . . .	79
4.10	Distance and Internationalization . . . . .	79
4.11	Conclusion . . . . .	82
	References . . . . .	83
<b>5</b>	<b>Business Strategies and Organization Design . . . . .</b>	<b>87</b>
5.1	Introduction . . . . .	87
5.2	Military Strategies and Formations . . . . .	87
5.3	Theory of the Firm . . . . .	88
5.3.1	Resource-Based Theory . . . . .	89
5.3.2	Transaction-Costs Theory . . . . .	89
5.3.3	Behavioural Theory . . . . .	93
5.3.4	International Product Life-Cycle Theory . . . . .	93
5.3.5	Uppsala Model . . . . .	94
5.3.6	Networks Theory . . . . .	94
5.4	Issues on Strategic Management . . . . .	95
5.4.1	New Economy . . . . .	95
5.4.2	Complexity and Flexibility . . . . .	96
5.4.3	Intelligence . . . . .	96
5.4.4	Psychoanalyzing the Organization . . . . .	96
5.4.5	Competency . . . . .	96
5.4.6	Internationalization . . . . .	97
5.4.7	Strategies and Systems . . . . .	97
5.4.8	Entry Strategy . . . . .	97
5.4.9	Organization Structure . . . . .	97
5.4.10	Leadership . . . . .	98
5.4.11	Human Resource . . . . .	98
5.4.12	Partnering . . . . .	98
5.4.13	Communications . . . . .	98
5.4.14	Marketing . . . . .	99
5.4.15	Value Creation . . . . .	99
5.4.16	Learning and Knowledge Management . . . . .	99
5.4.17	Cultural Management . . . . .	99

5.5	Strategic Analysis, Planning, Matching and Implementation . .	99
5.6	Entry Strategy and Entry Mode . . . . .	100
5.7	Organization Design . . . . .	102
5.8	Inter-dependence of Strategy and Organization Structure . . .	104
5.9	McKinsey 7S . . . . .	105
5.10	A/E Firm's Business Strategies . . . . .	106
5.11	Summary . . . . .	107
	References . . . . .	107
<b>6</b>	<b>Theoretical and Conceptual Framework . . . . .</b>	<b>111</b>
6.1	Introduction . . . . .	111
6.2	Theoretical Framework . . . . .	111
6.2.1	Flight . . . . .	112
6.2.2	Gravity Model . . . . .	113
6.2.3	Agglomeration in Core Locations and Back-Washes in Periphery Locations . . . . .	114
6.2.4	Venturing Overseas . . . . .	114
6.2.5	Embeddedness . . . . .	115
6.2.6	Risks, Business Strategies and Organization Structures . .	115
6.2.7	Dynamic 8S Framework . . . . .	115
6.2.8	Organization Design of an A/E Firm . . . . .	116
6.2.9	Isomorphism . . . . .	117
6.3	Relationship Between Key Elements . . . . .	118
6.4	Conceptual Model of Study . . . . .	119
6.5	Parameters for Measurement . . . . .	120
6.6	Implications of Study . . . . .	122
6.6.1	Interpolation and Extrapolation of Organization Design . . . . .	122
6.6.2	Location Theory and Research Design . . . . .	122
6.7	Summary . . . . .	129
	References . . . . .	131
<b>7</b>	<b>Research Design and Methodology . . . . .</b>	<b>133</b>
7.1	Introduction . . . . .	133
7.2	Research Framework . . . . .	133
7.3	Pilot Study . . . . .	134
7.4	Population and Sampling . . . . .	135
7.5	Data Collection Instruments . . . . .	135
7.5.1	Questionnaire Surveys and Interviews . . . . .	137
7.6	Data Collection . . . . .	137
7.6.1	Fieldwork . . . . .	138
7.7	Statistical Analysis . . . . .	141
7.8	Content Analysis . . . . .	143
7.9	Case-Based Reasoning (CBR) . . . . .	144
7.10	Validation, Reconciliation and Adaptation . . . . .	145
7.11	Summary . . . . .	146
	References . . . . .	146

<b>8 Data Collation and Results</b>	149
8.1 Introduction	149
8.2 Profile of Questionnaire Replies and Interviewees	149
8.3 Content Analysis	151
8.3.1 Content Analysis Methods	151
8.3.2 Differences in Perceptions Between Private Firms and Government-Linked Firms	160
8.4 Statistical Analysis	162
8.4.1 Factor and Reliability	162
8.5 Integration of Content Analysis and Statistical Analysis	162
8.6 Summary	173
References	173
<b>9 Background of Internationalizing Construction Firms and Cities</b>	175
9.1 Introduction	175
9.2 Singapore's A/E firms' Traits and Characteristics	176
9.2.1 Firm A	176
9.2.2 Firm B	177
9.2.3 Firm C	177
9.2.4 Firm D	177
9.2.5 Firm E	178
9.2.6 Firm F	178
9.3 Corporatized or Privatized Firms	179
9.4 Motivations and Objectives	180
9.5 Competitiveness and Competitive Strengths of Singapore's A/E Firms	181
9.6 Internationalization of Singapore's A/E firms	183
9.6.1 Reasons for Internationalizing	184
9.6.2 "Hot-Spots" and "Cold-Spots"	184
9.6.3 Preferred Locations to Venture Overseas	186
9.6.4 Countries and Cities	188
9.7 Difficulties of Internationalization	197
9.8 Management of Risks	199
9.9 Prerequisites and CSF	204
9.10 Summary	205
References	206
<b>10 Findings and Synthesis of Themes</b>	207
10.1 Introduction	207
10.2 7-h Flight-Radius	207
10.3 Core and Periphery Locations	212
10.4 Gravitational Distance	215
10.4.1 Globalization and Virtual Collocation	219
10.4.2 Importance of Physical Presence	220

10.5	Double-Octagonal Perspective of Distance . . . . .	222
10.5.1	Changes . . . . .	226
10.5.2	Spillages . . . . .	227
10.5.3	Time-Lags and Differences . . . . .	228
10.5.4	Psychic Distance . . . . .	228
10.5.5	Communications . . . . .	229
10.5.6	Networks . . . . .	230
10.5.7	Cost-Value . . . . .	231
10.5.8	Control . . . . .	232
10.6	Eclectic Diamond Framework . . . . .	233
10.6.1	Factor Conditions . . . . .	234
10.6.2	Demand Conditions . . . . .	234
10.6.3	Related and Complementary Industries . . . . .	236
10.6.4	Strategies Due to Competition . . . . .	238
10.6.5	Government Interference . . . . .	239
10.6.6	Chance . . . . .	241
10.6.7	Ownership Qualities . . . . .	242
10.6.8	Locational Factors . . . . .	243
10.6.9	Internalization . . . . .	244
10.7	The 8S Framework . . . . .	246
10.7.1	Business Strategies . . . . .	246
10.7.2	Organization Structure . . . . .	256
10.7.3	Organization Systems . . . . .	259
10.7.4	Leadership Styles . . . . .	262
10.7.5	Skills and Staff . . . . .	263
10.7.6	Shared Values . . . . .	265
10.7.7	Supply-Chain . . . . .	266
10.7.8	Dynamic Strategies . . . . .	268
10.8	Synthesis of Findings and Themes . . . . .	270
10.8.1	Generalization of Findings from Content Analysis . . . . .	271
10.8.2	Generalization of Findings from Statistical Analysis . . . . .	277
10.9	Decision-Support Systems and Management Information Systems . . . . .	277
10.10	Summary . . . . .	278
	References . . . . .	279
<b>11</b>	<b>CBR-DSS and Validation . . . . .</b>	<b>283</b>
11.1	Introduction . . . . .	283
11.2	Management of an A/E Firm . . . . .	283
11.3	Sharing and Learning from Others in the Industry . . . . .	285
11.4	Discussion on Findings in Content Analysis and Statistical Analysis . . . . .	286
11.5	The CBR-Logic . . . . .	288
11.6	Step-by-Step Demonstration of the CBR-DSS . . . . .	289

11.7	Validation . . . . .	295
11.7.1	Feedback . . . . .	297
11.7.2	Recommendations and Modifications . . . . .	298
11.8	The Completed CBR-DSS Prototype . . . . .	299
11.9	Conclusion from Validation . . . . .	301
	References . . . . .	303
<b>12</b>	<b>Conclusion . . . . .</b>	<b>305</b>
12.1	Introduction . . . . .	305
12.2	Major Contributions of the Study . . . . .	306
12.2.1	Major Findings of the Study . . . . .	307
12.2.2	Validation of Hypotheses . . . . .	318
12.2.3	Contribution to Knowledge . . . . .	319
12.2.4	Contribution to Practice . . . . .	320
12.2.5	Innovations of the Study . . . . .	321
12.3	Limitations of the Research . . . . .	322
12.4	Recommendations for Future Research . . . . .	323
	References . . . . .	324
	<b>Appendix A: Internationalization of Architectural and Engineering (A/E) Firms . . . . .</b>	<b>325</b>
	<b>Appendix B: Internationalization of Architectural and Engineering (A/E) Firms . . . . .</b>	<b>329</b>
	<b>Appendix C: Validation Form . . . . .</b>	<b>337</b>
	<b>Bibliography . . . . .</b>	<b>339</b>



<http://www.springer.com/978-3-642-35163-1>

Organization Design for International Construction  
Business

Peh, L.C.; Sui Pheng, L.

2013, XII, 348 p., Hardcover

ISBN: 978-3-642-35163-1