



UNIVERSITI PUTRA MALAYSIA

***STREAMLINING OF PLANNING APPROVAL WORKFLOW PROCESS FOR
TOWN AND COUNTRY PLANNING DEPARTMENT OF ACCRA, GHANA***

HAMMAH NORISS KWEKU

FRSB 2013 9



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GHANA**

By

HAMMAH NORISS KWEKU

**Thesis Submitted to the School of Graduated Studies, Universiti Putra
Malaysia, in Fulfillment of Requirement for the Degree of Doctor of
Philosophy**

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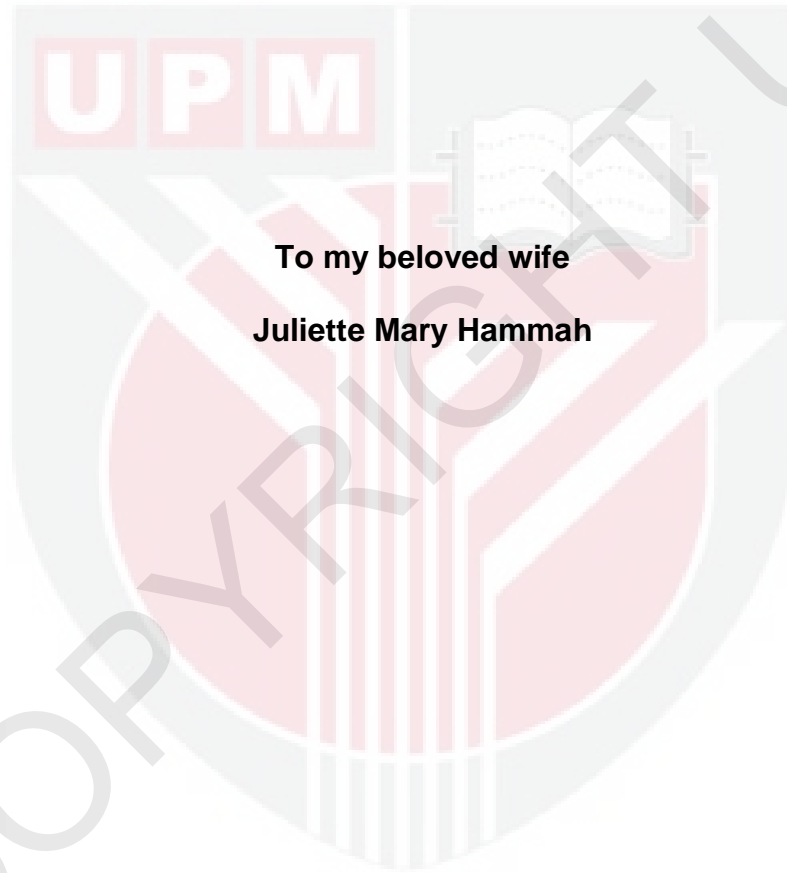
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DEDICATION

**To my beloved wife
Juliette Mary Hammah**



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Doctor of Philosophy

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September 2013

Chairman : Prof. Rahinah Ibrahim, PhD

Institute : Design and Architecture

In a complex planning (service) organization such as the Town and Country Planning Department (TCPD) in Ghana, proposing a restructured model to streamline the planning approval process and curtail delays entails consideration and questioning of many established techniques and protocols—this is a challenge because of the sensitivity surrounding the intended actions. The proposition that ‘*knowledge*’ should be considered as a contingency factor whereas ‘*discontinuous*’ and ‘*reach*’ should be considered as organizational design parameters (individual, group, organization and inter-organization) was an early effort by Ibrahim & Nissen (2007) to fit the complex environment within the Contingency Factors outlined

by Burton & Obel (2004). However, while Burton & Obel's Contingency Factors support organizational performance optimization, this study agrees with Ibrahim (2005) who found them deficient in their ability to improve or optimize service organizations such as those involved in property development or urban planning agencies. Therefore, this study was drawn towards a phenomenon concept by Ibrahim & Paulson (2008) who also described an operating environment called *discontinuity in organization* (DIO) where a member of a project team would enter when needed or leave when a task is completed during the progression of a project. The DIO phenomenon is detrimental to organizations such as planning agencies as succinctly put by Ibrahim & Nissen (2007) that “knowledge flow enables workflow and workflow drives performances”.

Building on the operational concept by Ibrahim & Nissen (2007) which posited that “the explicitness level of knowledge is key to determining how effective and efficient an organization would be in various properties and structural configuration fit”, the TCPD and planning agencies must anticipate in ‘*what different and various streamlined*’ strategies an attempt can be made to find better solutions. Such solutions can curtail identified delay directness issues and thus broadens the chances of better solutions. Using housing deficits as a motivational question, the study explores and answers the organizational root cause of the delays in the building permit issuance by TCPD. Exploring this in only one way is not recommended because the study finds such a limited approach may skew the potential solutions offered. Therefore the study used two methods of approach to arrive at strong

empirical findings. The first approach utilised a Case Study qualitative analysis method while the second adopted system analysis method using the *Virtual Design Team's (VDT) (Jin & Levitt, 1996)* computational organizational simulations. The data was collected through multiple sources of evidence to investigate into the workflow process of a planning approval delayed case.

Using a COT software called SimVision™ for COT modelling, the study restructured three sequential workflows of the current approval procedure of TCPD into a single workflow. The current project duration was considerably reduced from a total of 161 days to 39 days in the final Alternative Restructured Model. A presentation of the proposed Alternative Restructured Model to a group of 16 professionals and key members of the TCPD and STCM planning approval system in Ghana was also conducted to gain validation accounts. Results from the validation processes affirmed that the restructuring recommendations are possible. However, feedback highlighted which recommendations would be easy to implement whilst also highlighting others which would require legislative approval.

The results provided empirical support to show that in a dynamic organization such as the TCPD — '*organizational streamlining*' success depends on the relative emphasis of *discontinuous membership* as structure configuration as per parameter property reach (individual, group, organization and inter-organization). Consequently, this study contributes in providing empirical support for Ibrahim & Nissen (2007) where they had earlier recommended

further studies to determine if *knowledge* can be the seventh Contingency Factor to Burton & Obel's (2003) organizational design—with *discontinuous* as a new structural configuration. Additionally, it contributes towards closing the problematic fracture between organizational theory versus the practicalities and capabilities of service organizations by addressing the issues of organizational structural rigidity. The study also proposes alternatives in terms of operational fitness that could evaluate specific strategies for 'streamlining' and 'applicability' in the essence of various theories applied. The study finally concludes with a summary of how it contributes in two major disciplines: organizational and management.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

MEMPERKASAKAN PERANCANGAN PROSES KELULUSAN BAGI BANDAR DAN JABATAN PERANCANGAN NEGARA ACCRA, GHANA

By

HAMMAH NORISS KWEKU

September 2013

Pengerusi : Prof. Rahinah Ibrahim, PhD

Institut : Rekabentuk Senibina

Dalam sebuah perancangan yang kompleks (perkhidmatan) organisasi seperti Town and Country Planning Department (TCPD) di Ghana, sebuah model penstrukturan semula telah dicadangkan untuk menyelaraskan proses kelulusan perancangan serta kelewatan yang melibatkan pertimbangan dan persoalan teknik dan protokol yang mana didapati sangat mencabar kerana sensitiviti sekitar yang memerlukan tindakan segera.

Usul bahawa 'pengetahuan' boleh dianggap sebagai satu faktor luar jangka, sedangkan 'discontinuous' dan 'reach' boleh dianggap sebagai parameter reka bentuk organisasi (individu, kumpulan, organisasi dan antara organisasi) merupakan usaha awal oleh Ibrahim & Nissen (2007) bagi menyesuaikan persekitaran yang kompleks dalam jangkamasa faktor-faktor yang telah digariskan oleh Burton & Obel (2004).

Walaupun bagaimanapun, factor jangkaan Burton & Obel menyokong pengoptimuman prestasi dalam organisasi, kajian ini bersetuju dengan Ibrahim (2005) yang mendapati mereka kurang keupayaan untuk meningkatkan atau mengoptimumkan organisasi perkhidmatan seperti mereka yang terlibat dalam pembangunan hartanah atau agensi-agensi perancangan bandar. Oleh yang demikian, kajian ini telah disediakan ke arah satu konsep fenomena oleh Ibrahim & Paulson (2008) yang juga digambarkan persekitaran operasi yang dipanggil Discontinuity in Organization (DIO) di mana ahli projek akan masuk apabila diperlukan atau meninggalkan apabila tugas diselesaikan pada ketika proses perkembangan projek. Fenomena DIO boleh memudaratkan organisasi seperti agensi perancangan. Ibrahim dan Nissen (2007) meletakkan secara ringkas bahawa "aliran pengetahuan membolehkan aliran kerja dan aliran kerja memacu pencapaian".

Pembinaan konsep kendalian oleh Ibrahim & Nissen (2007) yang dikemukakan bahawa "the explicitness level of knowledge is key to determining how effective and efficient an organization would be in various properties and structural configuration fit", agensi TCPD dan perancangan mesti menjangkakan 'perbezaan dan pelbagai strategi pelarasan dalam usaha untuk mencari penyelesaian yang lebih baik. Penyelesaian itu boleh menghalang isu-isu kelangsungan kelewatan dan dengan itu meluaskan peluang untuk penyelesaian yang lebih baik. Meneroka dengan satu cara adalah tidak digalakkan kerana kajian mendapati bahawa pendekatan yang terhad boleh memesongkan penyelesaian tawaran yang berpotensi. Oleh itu kajian ini menggunakan dua kaedah pendekatan untuk penemuan empirikal

yang kukuh. Pendekatan pertama digunakan adalah kualitatif Kajian kaedah analisis kes manakala sistem pendekatan kedua menggunakan kaedah analisis Virtual Design Team's (VDT) (Jin & Levitt, 1996) simulasi organisasi pengiraan. Data telah dikumpulkan melalui pelbagai sumber bukti untuk menyiasat proses kelulusan aliran perancangan sebagai kes kerja tertanggung.

Dengan menggunakan perisian COT iaitu SimVision™ untuk COT model, kajian ini telah disusun semula menjadikan tiga aliran kerja urutan prosedur kelulusan semasa TCPD ke dalam satu aliran kerja. Tempoh projek semasa telah dikurangkan daripada 161 hari kepada 39 hari dalam model alternatif akhir yang telah disusun semula. Satu penerangan cadangan penyusunan Model Alternatif kepada sekumpulan 16 profesional dan ahli-ahli utama perancangan sistem kelulusan TCPD dan STCM di Ghana dan juga telah dijalankan bagi mendapatkan validation accounts. Hasil daripada proses pengesahan menegaskan bahawa kemungkinan perlu pada cadangan penyusunan semula. Walau bagaimanapun, maklum balas yang diketengahkan mencadangkan agar lebih mudah untuk dilaksanakan sambil menonjolkan yang lain-lain yang mana juga memerlukan kelulusan perundangan.

Hasil keputusan bersama dengan sokongan empirikal menunjukkan bahawa dalam sebuah organisasi yang dinamik seperti TCPD, kejayaan 'penyelarasan organisasi' bergantung kepada penekanan relatif discontinuous membership sebagai struktur konfigurasi per parameter property reach (individu, kumpulan, organisasi dan antara organisasi). Kajian empirikal menyokong Ibrahim dan Nisen (2007) di mana mereka

mencadangkan kajian lanjutan untuk menentukan jika ilmu pengetahuan boleh menjadi Contingency Factor ketujuh terhadap struktur rekabentuk organisasi yang mana Burton dan Obel (2003) dengan discontinuous satu struktur konfigurasi baru. Kajian ini merupakan satu pencapaian yang signifikan untuk menyelesaikan masalah antara teori organisasi berbanding praktis dan keupayaan organisasi perkhidmatan dalam menangani isu-isu struktur organisasi yang rigid. Kajian ini menawarkan alternatif dari segi kecergasan operasi yang menilai strategi khusus untuk 'memperkemaskan' dan 'kesesuaian' dalam intipati pelbagai teori yang digunakan. Kajian ini akhirnya diakhiri dengan ringkasan sumbangan penyelidikan dalam dua bidang utama, iaitu, organisasi dan pengurusan.

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May God bless you all abundantly.

I certify that a Thesis Examination Committee has met on 6 September 2013 to conduct the final examination of Hammah Noriss Kweku thesis entitled "Streamlining of Planning Approval Workflow Process for Town and Country Planning Department of Accra, Ghana" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U. (A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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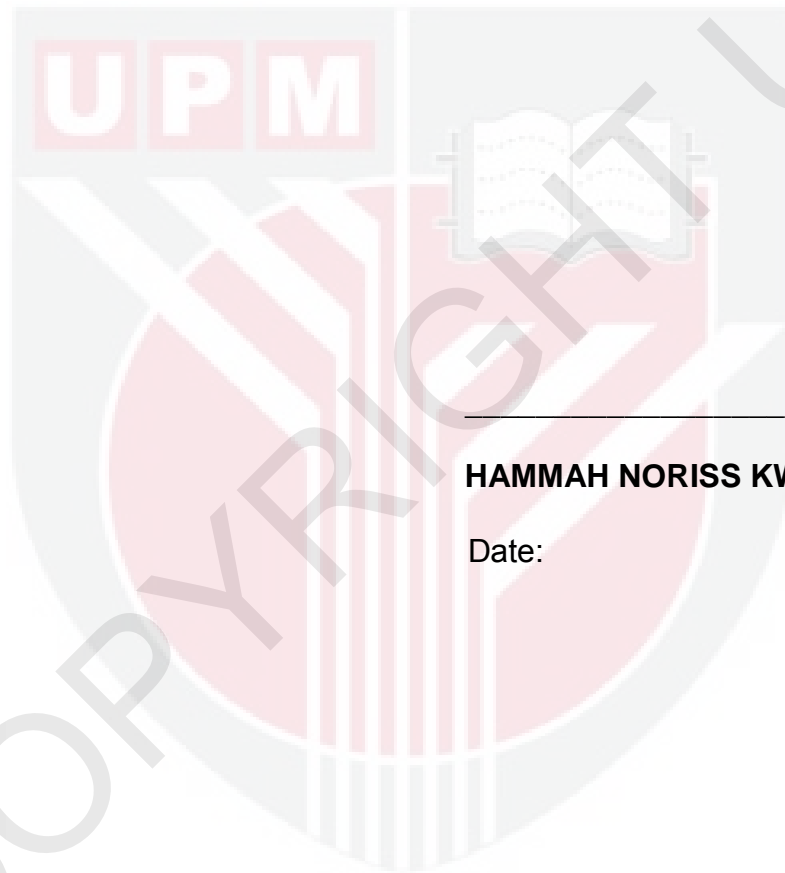
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DECLARATION

I declare that this thesis is my original work except for quotations and citations, which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Putra Malaysia or other institutions.



HAMMAH NORISS KWEKU

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TABLE OF CONTENTS

	Page
ABSTRACT	iii
ABSTRAK	vii
AKNOWLEDGEMENT	xi
APPROVAL	xiii
DECLARATION	xiv
LIST OF TABLE	xxi
LIST OF FIGURES	xxii

CHAPTER

1	INTRODUCTION	1
	1.1 Introduction	1
	1.2 Context and Background of Study	1
	1.3 Delay Issues in Ghanaian Planning Approval	3
	1.4 Organizational Issues Affecting Planning Agencies	6
	1.5 Statement of Problem	7
	1.6 Research Aim and Objectives	13
	1.7 Research Questions	13
	1.8 Case Study Inquiry Strategy	16
	1.9 Expected Finding	19
	1.10 Justification of the Study	19
	1.11 Scope and Limitation	20
	1.12 Expected Contribution	20
	1.13 Organization of Thesis	22
	1.14 Definition of Terminologies	24
2	LITERATURE REVIEW	29
	A Review of Organizational Issue on Property Development and Physical Planning Agencies in Ghana	29
	2.1 Introduction	29
	2.2 Part One: Literature Review on Planning System	29
	2.2.1 The Physical Planning in Ghana	30
	2.2.3 National Planning	31

2.2.4	The Functions of the National Plan	32
2.2.5	Regional Planning	33
2.2.6	District Planning	34
2.2.7	Planning Committee	355
2.2.8	Planning Permission	35
2.2.9	Issues in Ghanaian Planning Approval	36
2.2.10	The Role of Physical Planning in	37
2.2.11	Property Development	38
2.2.12	The Process of Property Development	39
2.2.13	The Stages of Property Development	40
2.3	Part Two - Literature on Organizational Design	43
2.3.1	Organizational Behavior in Planning	44
2.3.2	Perspectives of Organizations in Planning	46
2.3.3	Behavioural Changes in an Organization	48
2.3.4	Organizational Environmental Factors	48
2.3.5	The Effect of Organizational Contingency	49
2.3.6	Adaptation of Structure and Applications	52
	2.3.6.1 Adaptation of Structure	53
	2.3.6.1 Applications of Strategies	55
2.3.7	Size as a Contingency Factor	57
2.3.8	Technology as a Contingency Factor	58
2.3.9	Environment as a Contingency Factor	59
2.3.10	Characteristics as a Contingency Factor	61
2.3.11	Planning and Organizational Structure	61
2.3.12	Components of Organizational Structure	62
2.3.13	Designing Structure in Planning	66
2.3.14	Elements of Structure in Planning	67
2.3.15	Work Characteristics of Structures	72
2.3.16	The Discontinuity in Organization	75
	2.3.16.1 Discontinuous Membership	76
	2.3.16.2 Concurrent Workflows	77
	2.3.16.3 Multiple Interdependency	78
	2.3.16.4 Tacit Knowledge Regression	79
2.3.17	Forms of Interdependency in Planning	79

2.3.18	Organizational Interdependence in Planning	86
2.4	Part Three- Literature on Knowledge and Workflow	87
2.4.1	Knowledge Flow	88
2.4.2	Workflow Flow	89
2.4.3	Fit Criteria	90
2.4.3.1	Fit for Planning Agencies	91
2.4.4	Effect of Knowledge Flow	95
2.4.5	Proposition	96
2.4.5.1	Theoretical Proposition	97
2.5	Summary	100
3	RESEARCH METHODOLOGY	101
3.1	Introduction	101
3.1.1	Rationale for Using Case Study	102
3.2	The Study questions	105
3.2.1	Research Questions	108
3.2.2	Propositions	109
3.2.3	Theoretical Proposition on Discontinuity	110
3.3	Unit of Analysis	114
3.3.1	The Role of the Researcher	115
3.3.2	Collecting Evidence in the Case Study	115
3.3.3	Multiple Sources of Evidence	116
3.4	Linking Data to Propositions	126
3.4.1	Linking Objectives and Sub-Research Questions	128
3.4.2	The Data Analysis during actual Fieldwo	129
3.4.3	Analysis after Actual fieldwork	130
3.4.4	Qualitative Analysis for the Workflow	131
3.4.5	Computation Organizational Theory (COT)	132
3.4.5.1	VDT COT System Analysis	133
3.4.5.2	Parameter Set for VDT COT Simulation	134
3.5	Criteria for Interpreting the Findings (VDT COT)	142
3.6	Validity	143
3.6.1	Construct Validity	143
3.6.2	Internal Validity	145

3.6.3	External Validity	147
3.6.4	Reliability	148
3.7	Summary	148
4	RESULTS AND ANALYSIS OF WORKFLOW	150
4.1	Introduction	150
4.2	Results of Structure of Planning Agencies	150
4.2.1	Multiple Sequential and Concurrent Workflows	157
4.2.2	Having Multiple Task Interdependent	161
4.2.3	Having Discontinuous Memberships	165
4.2.4	Having tacit Knowledge regression	167
4.3	Results of workflow of Planning approval	170
4.3.1	Processing Uncertainty	172
4.3.2	Planning Approval Processing	173
4.3.3	Planning Approval workflow Structure	175
4.3.4	Planning Approval Workflow Environment	177
4.4	Results of the Current approval Workflow Processing	178
4.5	Analysis of Planning Approval Workflow Processing	183
4.5.1	Socialization of the Approval Workflow	184
4.5.2	Externalization of the Approval Workflow	185
4.5.3	Combination of the Approval workflow	187
4.5.4	Internalization of the Approval Workflow	188
4.5.5	Validations of the Planning Approval Workflow	188
4.6	Streamlining Approval Workflow Process	192
4.6.1	Bringing the Professionalism together	195
4.6.2	Being Central and interdependent	196
4.6.3	Professional Knowledge Capability	197
4.6.4	Recommendation Strategies for Streamlining	198
4.7	Summary	205
5	RESULT AND ANALYSIS OF STREAMLINING	208
5.1	Introduction	208
5.2	The Experimental Setup of the Restructured Model	208
5.3	Comparing the Results of the VDT COT	213

5.4	Discussion of the VDT COT Results and Analysis	216
5.4.1	Knowledge Factor is a Constant and Superior	218
5.4.4	Knowledge Flow Enables Workflow	222
5.5	Using Organizational Theory for Validation	224
5.5.1	Organizational Contingency for Validations	225
5.5.2	Intellective Validation of	226
5.5.2.1	Validation of Reasoning	229
5.5.2.2	Validation of Representation	230
5.5.2.3	Representation and Usefulness	233
5.4	Summary	235
6	CONCLUSION AND RECOMMENDATIONS	237
6.1	Introduction	237
6.2	Answer to Research Questions	237
6.2.1	The Answer to the First Research Question	239
6.2.2	Answer to the Second Research Question	240
6.2.3	Answer to the Third Research Question	239
6.2.4	Answer to the Fourth Research Question	241
6.2.5	Answer to the Main Research Question	242
6.3	Knowledge Contribution	243
6.4	Impact of study and Suggestions for Future Studies	247
6.4.1	Limitation of Study	248
	REFERENCES/BIBLIOGRAPHY	249
	APPENDICES	264
	BIODATA OF STUDENT	300
	LIST OF PUBLICATIONS	301

LIST OF TABLES

Table	Page
1.1. Eagle research Framework Table	15
2.1. Interaction of Organizational Structure of TCPD	80
2.2. Organizational Interaction of Planning agencies	84
3.1. Five Sources of Evidence	118
3.2. The Sample	119
3.3. Utility Agencies Respondents' Profile	124
3.4. Case-Study research Method Steps in Linking Data	129
3.5. Example of Information on Property Pane of VDT COT	135
3.6. Variables and Parameter Settings for the Baseline Models	136
3.7. Distribution of FTE's for Team Members in TCP	139
3.8. Alternative Restructured Model (ARM) Experimental Setup	141
3.9. Validation tests for Case-study Research	146
5.1. An intervention setup of the ARM-COT VDT	209
5.2. Comparisons of Baseline and ARM Setup	210
5.3. Comparison of Selected Organizational Performance	213
6.1. The key Research Questions and key Findings	237

LIST OF FIGURES

Figures	Page
2.1. Construct Arrangements and Divisions of Literature	30
2.3. Comparison of Development Process	41
2.3. Theoretical framework	99
3.1. Research framework	104
3.2. Qualitative analysis Procedure	132
3.3. Procedures of COT VDT System Analysis in the Case Study	134
3.2. Organizational Environment and the Structure	152
3.3. Multiple sequential and Concurrent workflows	160
3.4. Planning Approval Workflow Process	170
4.1. Illustrations of TCPD three Huge Sequential Workflows	151
4.2. Factors Affecting the Environment and the Structure	152
4.3. Multiple Sequential and Concurrent Workflows Process	160
4.4. Planning Approval Workflow Process	170
4.5. Screenshot Showing of three Sequential	179
4.6. Screenshot of VDT COT Baseline Model	180
4.7. Professional Knowledge Capability factors of TCPD	194
4.8. Proposed seven strategies	199
5.1. Acceptable and Unacceptable Interventions	211
5.2. Screen Shot from VDT Model	211
5.3. A Validation Trajectory	227
5.4. An Experimental COT Validation Project	228



CHAPTER 1

INTRODUCTION AND CONTEXT OF THE STUDY

1.1 Introduction

This Chapter discusses the context and background of the study. An explanation is provided on the organizational issues in the Ghanaian planning approval workflow process and their effects on the housing delivery system. The statements of problems as detailed in the study are also explained and established through the Research Aim and Objectives of the study. The chapter also details the Justification of the Study, the Scope and Limitation and the organization of the thesis. Meanwhile, in order for the reader to easily comprehend the terminologies used in this study, terms and acronyms used are clearly defined.

1.2 Context and Background of Study

Ghana is officially known as the Republic of Ghana and is natively called Ghana. It is situated in West Africa. It was formerly called Gold Coast until 6th March 1957 when Gold Coast became Ghana after independence from the British. In 1960 Ghana became a republic state. Ghana shares common borders with three francophone (French-speaking) countries. Ghana is bordered by Togo to the east, Cote d'Ivoire to the west and Burkina Faso to the north. The southern part of Ghana extends to the Gulf of Guinea.

Ghana has a total area of 92,456 sq mi (239,460 sq km), a land area of 88,811 sq mi (230,020 sq km) and is inhabited by an estimated population of 24,339,838 (Population-2010 est.). Presently Greater Accra is the capital region and Accra is the capital city. Accra currently harbors an approximate population of 3,999,841. Accra itself has experienced growth extrapolated from a population of 1,658,937 in 2000 to 3,963,264 in 2011. This study addresses organizational glitches that lead to the planning approval delays facing the Town and Country Planning Department (TCPD) of Ghana under the Accra Metropolitan Assembly (AMA). The AMA is the municipal administrative headquarters of the metropolitan region. Apart from the AMA there are another nine metropolitan regions.

In the Ghanaian planning system, in each region an elected official Chief Executive represents the central government. Each Chief Executive is appointed by the national Government; however, his or her power is gained from the Assembly. The Assembly in turn is headed by a Presiding Member who is elected from among the members. The national Government will appoint one-third of the assembly members whereas the remaining two-thirds are elected by local assembly members. For effective supervision of planning implementation, the Assemblies work alongside the Regional Coordinating Council (RCC) to coordinate and monitor the activities of the Assemblies. This is because each Assembly has an extensive social, economic and legislative supremacy over their respective local authority. The outcome of this complex structure is that long bureaucratic bottlenecks are created at the local implementation level. To date there has been a lack of

explanation regarding the delays involved in the planning permission approval system. As a consequence perhaps, the Ghanaian publics have some odd perceptions about the planning approval process. These will be explored and responded to in the research.

1.3 Delay Issues in Ghanaian Planning Approval System

Discussion on delay issues in planning permission date back at least to the 1970s (Ball, 1982). In Ghana, unauthorized and illegal construction has been the unintended result of delays in the issuance of planning permission (building permit). It is also painfully apparent that developers who follow all legal protocols are in fact penalized in that through following the law they must clear lengthy administrative hurdles before construction can legally take place (Cadman & Topping, 1995). However as a norm in Ghana, developers usually bypass the regulations and build anywhere and in any form. There are even instances where developers have built on water ways which has subsequently caused serious flooding.

The 2010 flood that claimed lives and properties across Ghana was attributed to illegal development and continues to be a strong indicator to authorities and the public alike that the problems arising from building regulation is a clear public safety issue. This safety issue of flooding resulting from non-conformance with building regulations is becoming more common especially in the capital, Greater Accra. Notwithstanding that, it is very common to find that the majority of developers have built without permission

from the local authority. As stated previously, those developers who actually apply for planning permission face intolerable delays before a permit is granted. Such delays in turn add to the cost of delivering housing and as such, this then escalates housing provision deficits. Consequently developers are left with an unfortunate choice whereby they must choose between fast affordable safe but potentially flawed development, or, slow expensive safety assured development.

The delays in processing permits are due to a complicated legal framework, complex organizational structure and lack of knowledge among the development team (I. Karikari, Stillwell, & Carver, 2005). It is important to assemble a knowledgeable development team to advise on various phases of the development process (Cadman & Topping, 1995) especially during the planning permission phases. This will then avoid what Paulson (1976) termed as 'incomplete knowledge transfer'. Incomplete knowledge transfers can result in unnecessary rework through double or triple handling. This causality is due to the major contributing factor of 'knowledge failure', a phenomenon resulting from incompatibilities between dissimilar dominating knowledge types for each development lifecycle phase (Ibrahim & Paulson, 2008). In this context, Ibrahim & Paulson (2008) emphasized that knowledge deficiency may not possibly transmit due to knowledge type. This cyclical problem creates heavy and unclear organizational structure that impedes the performances of an organization.

Ibrahim (2005) divided the property development process into five major phases from feasibility to property management. Of the five phases, Ibrahim's third phase covers the planning permission stage where, according to Cadman & Topping (1995), prior to committing to a development, a cautious developer will clear all legal obstacles. At this stage, engineers and architects team up to draw up a development concept, have regard for the regulations and transfer them into drawings (plans) in order to obtain requisite legal documents from the relevant local authorities (Ibrahim, 2005). In accordance with building regulations and codes at the local and regional level, before planning permission is granted, the developer needs to provide specific information to describe the type, dimension, size and form of the proposed project. This information may include a plan as well as information on the location of the site, accessibility, exterior plans (elevations) and so forth. This process requires interaction between the developer and the various local authorities (or in some cases regional or state authorities). In most cases, the local development regulations are soundly based and are broadly in alignment with overall national and regional policy (McCarthy, 2006).

Aligning the planning system with national and regional policy is considered essential for the physical planning and development of the nation. Given the need for such an alignment, Malaysia introduced the One Stop Centre (OSC) in 2007 to replace the former traditional system and shorten the time duration of approvals (Nor, 2008). The goal of the new system was clearly enunciated as a consequence of the delays inherent within the previous traditional

system. Regrettably, there are parallels between the old Malaysian system and the current situation in Ghana.

Delays are obvious in development approval processing where it involves government agencies and departments (Lewis, 1968). To achieve the progression of concepts (O. Yiftachel & Ghanem, 2004) local authorities and developers must exhibit strong task interdependency and knowledge flow techniques because “modern urban life is carried out in a planned society” (Perry, 2003 p143). Such high task interdependency is one characteristic identified by Ibrahim (2005) as being caused by complex organizational processes during property development projects. The next section goes on to explain the issues of property development and its effects on the housing delivery system in Ghana.

1.4 Organizational Issues affecting Ghanaian Planning Agencies and its impact on Housing Delivery

This study identified that the root cause of the delays in the issuance of building permits are as a result of poor organizational practices among the planning agencies. Therefore the organizational operating environment is being affected by the contingency factors (leadership style, climate, technology, strategy, size and environment). Ironically, these factors impede the swift applicability of the approval process thus slowing down the planning approval process. As a result the slow planning approval process affecting the housing delivery system hence escalates to housing deficit in Ghana.

Housing system is a major sector of property development schemes. In fact Best (1980) argued that housing is the major urban land use. It is clearly the most utilized land development scheme and as such it is essential that matters relating to housing delivery such planning approval system be addressed aggressively on the basis that it provides for physical needs such as security and shelter. Moreover, it also fulfills basic human psychological needs such as the provision of space and privacy.

Several researchers have sought to understand the impact of planning constraints on housing delivery. Of those, Bramley (1998) examined the indicators of planning constraints and their impact on housing land supply. Bramley & Karley (2005) later went on to investigate how much extra affordable housing is needed in England. In another but related vein, a study by Hui & Ho (2003) found that when more approvals of planning applications are issued they give rise to the production of more housing units. Those scholars argued that planning issues affect housing delivery actively (directly) or partially (indirectly). Ghana is an example of a nation where planning approval constraints are adversely impacting on the housing delivery system and, by extension, is failing to meet some basic human needs of its people.

1.5 Statement of Problem

In Ghana it has been said that everybody builds whatever they want anywhere, anytime and anyhow they want it. This is in part because of poor

organizational structure and lack of enforcement where building regulations and the zoning scheme are contravened by those who have constructed unsound buildings. The unsound building development proposals are normally instigated by unskilled technical people, and exacerbated by the complicated legal framework, lack of organizational techniques, lack of logistics and modern technology. However the big question is who is to blame for causing this problem? In this matter Syms (2010) argued that the antagonistic character of the planning system was in part to blame. He also argued that in part it was the responsibility of professional education among planning organizations.

In looking at the problem, Ghanaian architects have attributed the unwillingness of developers to acquire building permits to the cumbersome and laborious procedures one has to go through before acquiring permits from district assemblies (Arku, Filson, & Shute, 2008). This study agrees with Amlalo (2006) who established that problems associated with improper organizational structure and inadequate enforcement of the Ghana Building Regulations (LI 1630) and other development controls have also adversely affected the urban and rural landscapes in the nation . This has resulted in indiscriminate and amorphous infrastructural development which has in turn facilitated flooding, demolition and the collapse of buildings that amounts to housing deficits.

In 2007 the Ghanaian cabinet expressed grave concern at the growing laxity in the enforcement of planning and building regulations (Finance & Team,

2007). Yet to date, nothing has been done to solve the problem. This is evidenced by the fact that over ten buildings have been reported as collapsing from 2007 to 2012 which killed many and yet there has been no procedural reform (Modernghana.com, November 14, 2012). In 2009, there were many articles reporting delays associated with the granting of building permits coming from permit applicants. One such common complaint highlighted that “the numerous illegal and indiscriminate erections of various structures and building edifices can be attributed in part to the length of time a building application is considered for a permit” (The Ghanaian Times, June 30, 2009). Hence, this study proposes to focus on improving the permit application process by addressing the organization issues the between planning agencies and among various professional persons.

In a study by Anderson et al (2000) they found that there is not only tension between the environment and growth, but also between the national and the local levels of control. They also found that while such tension persists, real progress is unlikely. Their findings are echoed in the problems affecting the planning system in major cities in Ghana. Already shying away from the statutory system, such tensions further discourage developers from seeking planning approval prior to construction. As the only seriously entertained penalty for non-compliance is demolition and as developers are long gone from the scene when that occurs, the study argues that the penalties for non-compliance are effectively non-existent or severely limited. Consequently, the study posits that tensions will continue to be perpetuated for those stakeholders involved in property development unless a proper measure is

taken to mitigate the identifiable delays and enforce penalties at an early stage where non-compliance is evident. However, a proper investigation on why the situation keeps recurring is needed before mitigation actions can be implemented. Thus the study proposes to focus on identifying the sources and the root cause of prolonged building permit application process.

In planning technical compliance and logic may not be complementary to each other and such ambiguities create a vantage forum (Hammah, 2010). The demolition of illegal buildings and those awaiting demolition is a big dilemma which is both a politically and socially painful situation for responsible authorities. As previously stated demolition is a harsh and questionable solution to the problem of unauthorized development. It would be preferable to address inherent structural impediments at their source by addressing policy and procedural shortcomings in providing an ultimate sustainable solution. Notwithstanding that a more sustainable approach is possible, the demolition exercises have been positive in the sense that they have created a forum of argument as outspoken critics have become vocal in arguing that demolition is not the best solution for ending building irregularity practices in Ghana. Mr. Lawrence Amesu, Country Director, Amnesty International, Ghana asked “Why do we give permits to people to build in disaster-prone areas and after spending so much to build their houses we go and demolish the houses?” (TNP, 2010). The obvious answer to his question is that those buildings awaiting demolition have no permits, however, a better question might be why is building occurring without permits? Therefore, this

study is critical to support the building authority in expediting its planning approval workflow process.

An earlier study by Hammah (2010) recommended focusing on planning approvals because land development forms a major part of economic empowerment in any nation. In fact, Glasson (2007) sees planning as very important when he observed that the major issue in a process is complexity since most regional planning processes requires complex coordination or integration between various professional actors. Therefore, for property development in Ghana to be sustainable and beneficial to the wider society (world), this study posits there must be proper organizational restructuring and reform mechanisms if improvement is to happen.

The majority of research only looked at the common delay problems characterized in the permit process, or, developer constraints in obtaining permits. Several did also seek to address the issue of the stakeholders involve in property development. Amongst those exceptions were the few studies that specifically addressed planning permission issues in Ghana. One such was that of Karikari (2006) who proposed that GIS application be implemented as a form of facilitating the restructuring of the planning approval process as part of the ongoing United Nation Land Administration Project within Ghana. Another similar work was conducted by Obeng-Odoom (2010) who examined the district assemblies' perspectives of causes that lead to failures in the Ghanaian planning system. Yet, his study was limited to general planning problem and thus does not really focus on the collaboration

among approval agencies. Hence, a gap still exists on explaining the collaboration between stakeholders and workflow process of planning approval applications.

Coordination among professional persons stands to be a key organizational strategy in property development. Buitelaar & Needham (2007) asserted that creating and using 'organization' is an essential part of property development. Many scholars such as Macmillan, et al (2001) have highlighted work interdependency (which involved various phases with dynamic information and knowledge transfer) could result in disorganized behavior. This is because property development involves several professional persons and phases which are interdependent with each other (Syms, 2002). In view of multi stakeholder's involvement the study is concerned where Ibrahim (2005) defined 'knowledge flow' as a process of transferring knowledge (tacit to explicit) through a medium of communication by sharing or distributing operational information. The study embraces Ibrahim & Nissen (2007) on the need to understand knowledge flow and workflow factors in the operating environment of planning agencies than in terms of its multiple sequential and concurrent workflows, discontinuous membership, multiple task interdependency, and tacit knowledge regression. It supports Misra et al. (1974) who emphasized that the success of every property development depends on the competence of the planning organization.

1.6 Research Aim and Objectives

With reference to the problem argument above, the study aims to develop a better planning approval processing model to curtail the organizational environmental problems facing TCPD that slows down the building permit approval processing in Ghana.

The objectives of the study are;

1. To study and identify the functions and role of the agencies and departments involved in the processing of planning approvals in Ghana.
2. To identify the predictor variables that impair and are associated with the swift applicability of planning approvals workflow processing from an organizational point of view.
3. To analyse the effect of the collaborations among the professional persons involved in the planning approval workflow process.
4. To propose a heterogeneous and advanced system of planning approval model using VDT COT simulations Model.

1.7 Research Questions

It is worthwhile to understand the actual organizational issues and what happen during planning approval processing, especially in the context of Town Country Planning Department. As Cadman & Topping (1997) argue, planning

approval plays a central role not only in the planning process, but also in the progress of property development. Therefore the study seeks to answer a research question as to:

What are the organizational design principles to streamline the planning approval workflow process in order to mitigate the delays of the building permit issuance in Ghana?

Four sub-questions are also addressed in this study:

1. *What is the required knowledge needed to enable a swifter workflow process during planning approval processing?*

In order for an organization to perform better in complex processing such as planning approvals, the knowledge capacity must align with operating environment (Ibrahim & Nissen,2008). Burton & Obel (2004) argue that the organizational performance depends on how knowledgeable the members are in terms of their environmental factors.

2. *How interdependency of task relates to sequential and concurrent workflow process in order for knowledge flow to enable workflow?*

Since planning approval processing requires a diverse range of expertise with different knowledge and skill type, the various planning agencies are dependent upon the performance of the planning agencies team (STCM

members). Usually, the approval process has substantial forms of task interdependency responsibility and huge workflow (Wageman, 1995).

Table 1.1. Eagle Research Framework Table an Adoption from Ibrahim (2010)

Main Research Questions				
What are the organizational design principles to streamline the planning approval workflow process in order to mitigate the delays of the building permit issuance in Ghana?				
RQ-Construct	Description of RQ Construct	Sub- RQ	Description of Sub-RQ	Research Objectives(RO)
WHAT	Organizational design principles	What are the organizational functions and roles of the planning agencies?	To documents the organizational structure and functions of the agencies	RO#1: Functions/ Roles
WHAT	Streamlining approval workflow process	What is the required knowledge needed to enable a swifter workflow processing?	a) To identify the key rules and regulations pertinent to building permit b) To identify potential organizational hitch	RO#1: Functions/ Roles RO#2: Knowledge Flow
HOW	Mitigate approval delays	How interdependency of task relates to sequential and concurrent phases during planning approval workflow process?	To documents the forms of interdependence as per required knowledge during approval workflow process	RO#2: Knowledge Flow RO#3: Collaboration
WHO	Building permit Process in Ghana	How heterogeneous organizational strategies and structure will alleviate the planning approval processing problems?	To recommend an improved and well restructured workflow process	RO#4: Building Permit Process

3. *What are the organizational functions and roles of the planning approval agencies and departments involved in planning approvals process?*

4. What organizational design principles of strategies and structure will alleviate the planning approval workflow processing delays in Ghana?

Planning approval processing is particularly subject to issues such as delays than other planning events because of its complexity; an approval process usually requires a multitude of professional persons with different skills and interests and the coordination of a wide range of unlike activities (Healey & Barrett, 1990). It is therefore important to streamline the planning approvals process by adapting new strategies and applying proper organizational structure to alleviate the delays therein.

The exhaustive literature pertaining to the organizational functionalities of planning agencies need to be examined. The focus of this study is to investigate the planning agencies with particular attention being paid to the details regarding STCM member's collaboration in processing the planning applications. Put simply, the question arises as to what is really 'role and functions' and what is going on in the approval process and respective agencies. To date there are little published works that address functions and role of the planning agencies impact on the planning approval process.

1.8 Case Study Inquiry Strategy

This study proposes looking at the streamlining of planning approval process in some countries generally and more particularly at Ghana and is explanatory in that it attempts to focus on fundamental relations in real-life situations (Robert K Yin, 2003). Consequently there is a need to examine

more closely what is really going on in the planning approval process in Ghana and the experiences of the various planning agencies involved. For this purpose this study proposes examining what TCPD in Accra really do (and why) using case study research methodology.

In many planning studies the researcher found 'case study' a dominant inquiring strategy. With a few notable exceptions (IB Karikari, 2006; Obeng-Odoom, 2010), most of the research investigated provided insights from the perspective of the effect of planning on housing. There were several studies conducted into housing which use a range of approaches such as quantitative and others. For example, in one study to test the District Assemblies' perspectives on the state of planning in Ghana, Yeboah & Obeng-Odoom (2010) examined the Ghanaian planning system. They carried out a case study research (with questionnaire) where four district assemblies were selected to ensure a socio-cultural and socio-economic range of sampling. Another study by Asiedu & Arku (2009) used descriptive study on the rise of gated housing estates in Ghana in the form of mixed method approach (i.e. a combination of quantitative and qualitative methodologies). They researched into local authorities responsibilities against the publics' perceptions. In deeper review, the study finds mixed method research does not limit the gathered data when it combines, since the outcomes come from qualitative and quantitative inquiring strategies in planning related studies. To provide further support another recent similar case study research was conducted by Baiden et al (2011) who assessed housing resident's satisfaction in Accra, Ghana. In that study, they adopted

an interview method of a representative sample of 562 households. These numbers were selected from three case neighborhoods and interviews were conducted with one adult resident in each household.

Case studies are exhaustive inquiries of individuals, groups, organizations or other societal firms. Polit & Hungler (1983) established that a researcher conducting a case study tries to analyze the factors related to the subject matter. The Case Study approach has been chosen for this research because it is suitable to meet the unique needs and demands of this study.

Another reason for the type of chosen research method is that case study leads to a practical inquiry that investigates existing occurrences within the factual circumstances Yin (2003) while considering the 'real-life situations'. This is important when looking at the Ghanaian planning agencies with particular reference to their activities and methods of planning approval processing because of the need to address a broad range of issues. Creswell (2003) suggested case study as an appropriate technique to investigate workflow processes, activities and events. The Case Study approach therefore has the potential to uncover new perspectives on the experience of processing a planning approval through the TCPD. Specifically, the Case Study methodology allows the researcher to generate a theoretical contribution, based on the data, about how the planning agencies apply their knowledge during planning approval processing. Thus, the approach conforms to Bagozzi's (1984) principles when he asserted that knowledge expansion depends on theory building and therefore more attention should

be paid to the process and structural aspects of a concept. Hence, the study uses mixed method case study research methodology as its dominant inquiring strategy.

1.9 Expected Finding

The main finding of this thesis is based on the current planning agencies settings in regard to the Accra TCPD. The study expects to improve the organizational process and thus be able to propose an enhanced 'Streamlining of Planning Approval Processing'. Streamlining of planning approval processing is expected to improve the TCPD process in avoiding delays. The study hopes it will offer solutions to TCPD's workflow process problems and will explain the means of adaptability of sound organizational structure and applicability of good strategies for the streamlining of planning approvals workflow process.

1.10 Justification of the Study

The reason for carrying out this research is justified on the grounds that several scholars (IB Karikari, 2006; Obeng-Odoom, 2010; Ofori, 1989) have raised concern over the need for the restructuring of the approvals process in Ghana. The system of planning permission approvals procedures in Ghana requires a review based solely on the extent and intensity of the problem. Secondly, there has been a call by Ghanaian leaders to solve the problematic situation facing the nation. Since not much has been done to

address the matter, the researcher would like to heed the call by the past President of Ghana for all experts and professionals with technical knowledge to find solutions. The past President pointed out that approval delay issues are the prime cause of abandonment of adherence to building regulations (GNA, 2010, 23).

1.11 Scope and Limitation

The study is limited to the understanding of the discontinuous membership in organization (DIO factors) and environmental contingency factors affecting only a selected Municipality (TCPD Accra) in Ghana. The study did not address the organizational motivation and corruption issue which is also part of the organizational problems that intensifies the building permit delays. The proposed model developed was not practically tested. Hence, the results are validated through computational simulations based on system analysis (Alternative Restructured Model-ARM) computational validation (reliability) test (see Chapter 5 section 5.5.2). The data collected was from a single municipality (TCPD) of Ghana.

1.12 Expected Contribution

This study will make significant contribution to both the theory and practice of planning and organizational design in the field of planning and organizations having workflow process. The literature relating to planning and property development and organizational design has shown a gap (see Chapter Two)

about adaptation and application of contingency factors in its practices. They encompass the knowledge required by organizational members (professionals) and how the professional's knowledge connects to workflow. Forms of knowledge and workflow vary within the literature studied. Although several lists of knowledge applicability are generated, they seem to tabulate single flow of knowledge conversion as per project (organizational) optimizations rather than combining them according to some criteria which would help analyse the interaction between them and the possible consequences. This study empirically supports Ibrahim's (2005) premise that property development related organizations - such as planning organizations - are operating in a different environment and demonstrate having multiple sequential and concurrent workflows, multiple task interdependency and having discontinuous members that create knowledge losses. The knowledge flow factor itself might not, in practice, directly affect the project's success or failure however there is usually a combination of environmental factors such as those identified by Ibrahim (2005) at different phases of the project life cycle which result in a project's success or failure.

In this research, a new theoretical framework for planning and management will be proposed. This framework would provide understanding about the required knowledge and describes the connections and impacts of knowledge when members are inter-depending on one another during planning approval processing. Emphasis is given to the connections between knowledge flow and workflow in the form of task interdependency between the planning agencies in Ghana. It extends the urgency of adapting and

applying the expert knowledge or the strategies as opposed to simply identifying the knowledge flow problems in the workflows.

1.13 Organization of Thesis

This study consists of six chapters. The content of each chapter is structured as follows:

Chapter One: Introduction

Chapter One presents the background of study, the statement of problem, main research questions, purpose of study, objectives, scope and justification of the study.

Chapter Two: Literature Review

The literature survey is divided into three parts. Part One includes the relevant literature on property development and planning. Part Two discusses organizational issues while Part Three emphasizes knowledge flow and workflow among the planning agencies. The Chapter explains the theoretical framework for the whole study.

Chapter Three: Methodology

Chapter Three discusses the research procedure used in this study. The study has adopted a case study approach based on Yin (2003) as its case study methodology. The chapter explains the research design, unit of analysis, population and sample, interview strategies and data collection procedure. The qualitative data analysis and VDT COT system analysis method employed are also explained in Chapter Three.

Chapter Four: Result and Analysis of Planning Approval Agencies Workflow in Ghana

Chapter Four presents the results of the qualitative data analysis of planning approval agencies workflow. The first part of the results is explained step by step and arrives at the result of a streamlined workflow of planning approval agencies. The chapter uses the VDT COT simulations of the current approval workflow of TCPD in Ghana.

Chapter Five: Result and Analysis of Streamlining Principles of Planning Approval Process

Chapter Five focuses on the process of Streamlining planning approval in Ghana using VDT COT simulation. The outcome provide validation in proving to what degree the recommended framework / structure developed by using VDT COT will contribute to find another means in the approval process.

Chapter Six: Conclusion and Recommendations

Chapter Six summarizes and discusses the findings by capitalizing on the four parameters of DIO theory compared against organization contingency theory. The chapter presents the conclusion, knowledge contribution, impact of the study and recommendation for further studies.

1.14 Definition of Terminologies

In this section some key words and concepts are defined. This has been done on the basis that it is critical that a commentary is provided on the way in which certain terms are used (in order to avoid confusion in terminology). The clarification of relevant words gives a better insight to the reader as well as ultimately supporting subsequent arguments. The following terminology is used within the body of this study:

Applicant: An individual or a body representing and/or acting on behalf of a development team formed for the explicit purpose of securing planning permission approval/ building permit (Kweku, 2009).

ARM: Alternative Restructured Model is a name given to the Model built from the Baseline Model.

AMA: Accra Metropolitan Assembly is a government department in Ghana which is responsible at the local government level in Greater Accra to

maintain public infrastructure, health, building and sanitation, electricity, water and more.

TCPD: Town and Country Planning Department is a local authority responsible for physical planning within the Accra Metropolis.

COT: Computational Organizational Theory

Delays: Wastage of time (dead unproductive time) experienced in the issuance of planning permission. These lead to (but are not limited to) high cost, disputes, housing shortages and abandonment of projects (Hammah, 2010, Kweku, 2009; Ball, M. et al, 2009).

Property Developer: A term used to express a person or a body embarking on property development as an investment and for profit (Barrett, Stewart, & Underwood, 1978; Cullingworth, 2006).

Explicit knowledge: Explicit knowledge can readily be codified in words and numbers (i.e. data and statistics); may be easily shared in manuals; and is easy to distribute. It can be stored as written documents or procedures and made available to others both internally and externally to an organization (Payne & Sheehan, 2004).

Housing: Deals with creating and producing a structured shelter for a better and a preferably healthier lifestyle by planning agencies and regulatory bodies having consideration for the needs of the people (Ginsberg & Churchman, 1987).

Model: Representation of process or object.

Knowledge: A set of abilities and aptitudes possessed by an individual or group that enables them to perform a particular task (Nonaka, 1994). It also refers to a knowledge acquired and developed from time to time by people in a certain community based on experience, research, observation or experimentation (Gunderson, 1999; Jarrow, Lando, & Turnbull, 1997; Pullin & Knight, 2001). Scholars such as Levitt & Nissen (2002) researched into knowledge flows utilization by using computational models to simulate knowledge flows actions. Their study provided support to which Ibrahim (2005) defined knowledge as “enabling action entity that allows the holder of a knowledge entity to undertake certain action”.

Property development: Property Development, also known as ‘land development’, is a process undertaken by an individual or a development organization to accomplish the communal and economical needs by the use of land rehabilitation and/or construction of housing projects (Cadman & Topping, 1995).

Property development lifecycle: Also known as ‘Facility development lifecycle’, this consists of systematic stages of development involved during facility development. There is much debate about the nature of the phases involved - though in reality the differences can be viewed as minor differentials (Barrett, et al., 1978; Cadman & Topping, 1995; Patsy Healey & Barrett, 1990; Ibrahim & Paulson, 2008)

Physical Planning: Refers to spatial policy, land use planning and local development (Healey, 1999; Wood, Handley, & Kidd, 1999).

Streamlining: Improving on the planning approval system by looking into the organizational factors. The term can be conjoined with other terms, including structure (Chandler 1962), fit (Porter, 1996), integration (Weill & Broadbent, 1998), fusion (Smaczny, 2001) and linkage (Henderson & Venkatramen, 1992). However, in this case, it concerns the integration of strategies relating to the approval processing success.

Tacit knowledge: Knowledge that is not easily quantified. Tacit knowledge is attained individually within a precise framework, and is typically difficult to formalize and converse (Polanyi, 1967).

Task Interdependence: Described as communication, support, helping and information/ data sharing in an organization, (Crawford & Haaland, 1972; D. W. Johnson, Johnson, & Maruyama, 1983).

Utility Agencies: Are planning related agencies that provide developmental services such as agencies the Electricity Cooperation of Ghana (ECG), Water Cooperation of Ghana (WCG) etc.

VDT: Virtual Design Team (Jin & Levitt, 1996).

Note: Some instances where the term 'planners' is used may refer to professionals such as architects, landscape architects, surveyors, lands administrators and so forth.



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