Streamlining of building permit approval processing of town and country planning department in Ghana

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Noriss Kweku Hammah[1]*

Abstract: To date, the Ghanaian development control system has proven unsuccessful in delivering quality planning application approvals in a timely manner and it is doubtful whether it is possible to achieve that basic goal in its current form. Planning application approval assessment is performed conjointly by various planning organizations spearheaded by Accra Town and Country Planning Department (TCPD). The success in delivering quality approvals in a timely manner therefore depends on the inter-organizational task interdependency, collaboration, and teamwork of the various planning agencies that form the Accra Metropolitan Assembly. The paper puts into perspective the TCPD organizational workflow and knowledge flow based on their strategies, size, leadership style, organizational complexities, and their competencies to contribute to the success of the approval process. Further, this paper examines the reasons behind the increasing amorphous planning and unapproved development/construction and identifies the various planning approval problems. Finally, it offers modalities to curtail planning approval delays.

Subjects: Behavioral Sciences; City and Urban Planning; Development Studies; Development Studies, Environment, Social Work, Urban Studies; Planning; Planning and Sustainability; Urban Studies

Keywords: planning approval workflow members; planning organization; grounded theory; streamlining; Ghana TCPD

1. Introduction

While there has been a range of development control case studies on the planning approval system in the new millennium, there has been little recent work undertaken at the Ghanaian level on understanding why there are perpetual delays in planning approval applications. Planning organizational

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PUBLIC INTEREST STATEMENT

In Ghana, the planning approval process is found to have organizational problems that influence the individual team member's performance and hence the speed and quality of the planning outcome. I investigated this issue by studying the Accra Town and Country Planning Department's (TCPD) daily operations for a period of 13 months. The information gathered from 11 planning-related agencies within the Accra Metropolitan Assembly (AMA) shows that the various planning agencies are having difficulties in meeting their legislative responsibilities to deliver timely planning approvals. The study suggests several planning approval process restructuring guidelines to curtail the planning approval processing delays.

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streamlining issues in Ghana are more emergent and important than ever before (Hammah & Ibrahim, 2014) due to Ghana's role in West Africa's regional economy. Ghana is the focal point as the gateway of Economic Community of West Africa States (ECOWAS), "the adequacy of infrastructure helps determine one country's success and another's failure" (Inkoom, 2010, p. 5). Therefore, the restructuring of the approval system will yield better infrastructure development. This will determine the success or failure of Ghana's economic and infrastructural development during a phase of high urbanization and expansion of cities.

In this climate of high urbanization and the expansion of cities, planning approval/building permit providers (Town and Country Planning Department [TCPD] and various planning agencies) are facing difficulties in meeting their legislative responsibility to deliver timely planning approvals. Accra's population is growing and as it becomes more urbanized and dominates economically in the region, housing deficits increase exponentially (Hammah & Ibrahim, 2014). At present, the gap between housing delivery and housing demand is very high. Individual housing accounts for over 70% of the housing stock in Ghana (UN-Habitat, 2009). This shortage of housing is a serious problem in the ECOWAS region and in particular in Ghana. Affordable housing becomes a dilemma for planning organizations as a consequence (Gurran, 2008). The TCPD operates under the archaic Town and Country Planning Ordinance of 1945, CAP 84. This is the current legislation underpinning the operations of planning-related agencies in Ghana. As such, agencies must work within the restraints of this outdated control.

This paper contributes to the knowledge on inter-organizational complexities during planning approval processing through reporting on the research conducted among planning agencies responsible for planning application assessments/approval. The following section provides an overview of the literature surrounding organizational streamlining, with the key focus being on the behavior of professional workflow members.

2. Organizational workflow streamlining

Over the last decade, investigation into why professional members in organizations perform poorly has become increasingly prominent across diverse research designs (Burton & Obel, 2004; Campbell, 2011). Organizational workflow problems and a lack of modern technology have previously been framed as predominant reasons as to why the planning application process in Ghana is perceived to have unwarranted delays (Karikari, Stillwell, & Carver, 2005). Similarly, the organizational behavior and knowledge management literature have identified workflow processing misfit (Ibrahim, Levitt, & Ramsey, 2005) and the impact of a lack of professional knowledge on the efficacy of systems (Ibrahim & Nissen, 2007; Kiggundu, 1981).

Studies have included a focus on workflow process improvement if planning organizations are to meet planning standards and accountability in inter-organizational workflow responsibilities. Planning organizations habitually face challenges during development approval processing; hence, poor practices and processes can result in improper scrutiny of planning applications (Jaffe, 1999). The TCPD is known for its complex and fragmented workflow which is reflected in development application processing delays (Kweku, 2009). It is essential therefore to develop refined perspectives that help take into account the complexity of workflow process. Indeed, Ellis and Keddara (2000) argued that workflow processes are essentially multifaceted because they not only deal with members' issues, but they must also deal with broader organizational environmental factors. These broader environmental factors are usually beyond the workflow members' control (Galbraith, 1973). According to Chow (1999), workflow processes are complex, and therefore require keen observation and analysis in order to build a multifaceted workflow application. Other scholars have argued that workflow comprised elements that are unpredictable, complex, and interdependent (Bertelsen, 2003; Galbraith, 1973; Ibrahim et al., 2005). Ibrahim and Nissen (2005) identified four factors that are involved in the workflow process of a dynamic organization such as the TCPD: (a) multiple sequential and concurrent workflows; (b) discontinuous membership; (c) knowledge regression in tacit dominant areas; and (d) multiple task interdependency.

Interdependency has been examined and defined in various ways. Wageman (1995) explained task interdependency in terms of interaction which is dependent on the organization's structure (input, process, goal, and reward). Shea and Guzzo (1989) described interdependence as attributes of people behaviors and the means of accomplishing their task/work (Blau, 1972; Guzzo & Shea, 1992). This means that workflow success will depend on the behavior of professional members. As stated by Hackman and Oldham (1976), interdependence has two task variations when looking at managing workflow process: (1) variation between initiated task interdependence; and (2) received task interdependence. In this instance, the workflow members are required to accomplish complex and uncertain tasks within a given period of time without any delays. However, as a result, workflow members have to deal with an extremely broad range of organizational issues including leadership, size, technology, climate, environment, and strategy (Burton, Lauridsen, & Obel, 2004).

Wageman (1995) examined organizational strategies further by exploring variations of interdependence—the degree to which the workflow task requires collective action. In that sense, although workflow members are accountable for the success of the approval process, the effectiveness of each member is only one of many factors that impact on the outcome. Notwithstanding that the task interdependence effectiveness of each workflow member constitutes a critical point in the many variables that directly affect the workflow process (Ellis and Keddara, 2000). This view was supported by Tohidi (2011), who believed that the role of workflow members are best achieved through systematic and well-structured information processing. It is therefore an ongoing challenge as every single workflow member's behavior has a direct repercussion on time, quality, and the success of a planning approval process.

Planning agencies have time pressures and tensions in delivering their tasks. It is therefore important to explore in an actual setting how planning agencies deal with these tensions. In Steinberg's (2005) opinion, the diversity and complexity of urban planning make the integration of strategies one of the key functions of planning. Misra and Bhat (2009) mentioned that it is a tedious task to make a detailed list of all the actions and activities which planning agencies must execute in order to fulfill their responsibilities. While that may be the case, planning agencies are considered to be direct representatives of government, and are therefore responsible for the success or otherwise of planning (Steinberg, 2005). The findings of this study suggest that the current complex approval system is not significant as a primary reason for approval delays, but is significant as a secondary or contributing reason. That is, in general, complex workflow system tends to limit knowledge flow, increase interdependency rate, aids knowledge regression, and doubles discontinuous membership, which is often not alone significant to influence the behaviors of workflow members.

Throughout the literature, positive organizational workflow restructuring outcomes are reliant on characteristics of workflow members. The current study investigates the planning approval workflow of the various Ghanaian planning agencies, who are responsible for planning approval. The following section describes the TCPD of Accra as a platform of study.

3. TCPD of Accra as a platform of study

The TCPD of Accra is the study area. The TCPD falls under the gamut of the Accra Metropolitan Assembly (AMA), which is the largest council of the 46 municipalities and responsible for development control within the metropolis of Accra. Six of those 46 municipalities deal with metropolitan centers. Planning approval assessment is performed conjointly by various planning organizations spearheaded by the Accra TCPD. There are about 11 planning-related agencies which are involved in development control and thus in the decision-making on planning approval. The various Ghanaian planning agencies in the decision-making process relate to one another in terms of development control, compliance, service monitoring, and establishment of policy and enactment.

To lodge a planning application at the TCPD, one has to follow over 10 complex steps before lodgment occurs as shown in Figure 1. The TCPD dominates and spearheads a committee called the Sub-Technical Committee Meeting (STCM) whose duty is to evaluate planning applications, attend

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Figure 1. Complex planning application (lodgment) steps that applicant/developer has to follow to obtain a permit.

COMPLEX PLANNING APPLICATION (LODGEMENT) STEPS
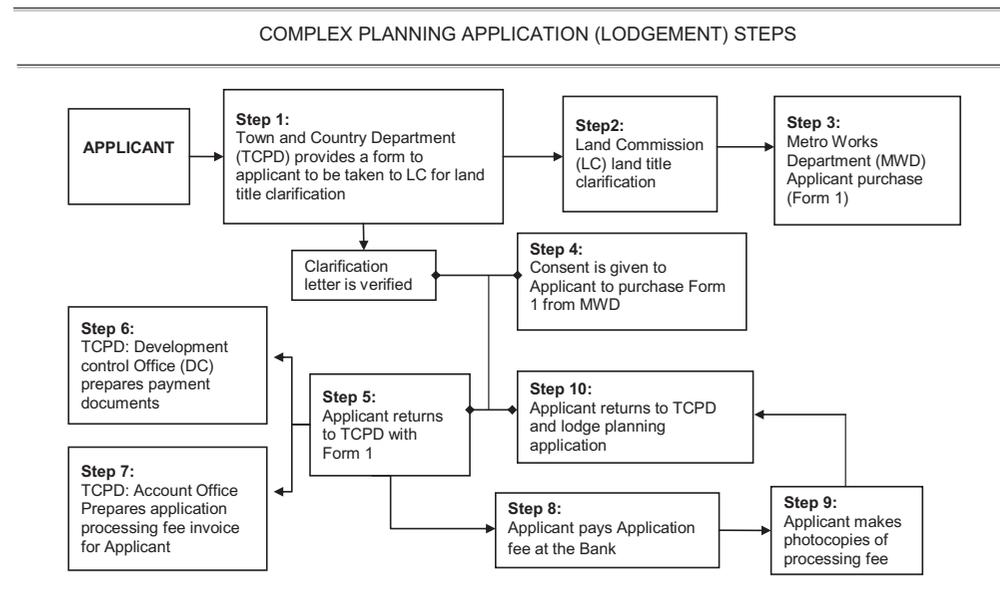
sites inspections, and make recommendations (approve, defer, or reject) to a body called the Statutory Planning Committee (SPC). Based on the recommendation of the SPC, the Works Department of the AMA is accountable for the issuance of a building permit to an applicant. This complex system creates unnecessary delays. Lengthy timeframes involved in approval processing are quite rightly creating a delay perception among the public and are exacerbating the existing lack of confidence in the system. Due to the lack of confidence in the planning system, Ghana is now faced with a situation whereby everybody builds whatever they want whenever they want.

Subsequently, the bypassing of the approvals system is resulting in unauthorized structures of substandard quality and shoddy workmanship which have been shown to lead to the collapse of buildings. Other unintended consequences arise in situations such as unauthorized construction on waterways leading to serious flooding when heavy rains occur. The proliferation of unauthorized development is also leading to social and health problems. These problems have earned international recognition and under the World Bank-funded Land Administration Project (LAP-2), a new Town and Country Planning Bill is being promulgated to enhance the TCPD organizational performances.

Thus, the study seeks to answer the following research question: What are the organizational design principles to streamline the planning approval workflow process in order to mitigate the delays of building permit issuance in Ghana? The following section describes the methodology the current study employed.

4. Design and method

Using multiple sources of evidence, the current study draws upon a grounded theory (GT) approach. Extracting data from multiple sources helped the researcher to ascertain a broader scope of the matter studied, which in turn supports data triangulation (Yin, 2003). GT is the research method that guides the study and draws upon the case reviewed and arrives at categories of conditions that cause the "phenomenon" i.e. planning approval delays. This theory is a vigorous research methodology that arrives at propositions/assumptions by putting together factual evidences and data (Martin & Turner, 1986). Accordingly, the three main kinds of coding: open coding, selective coding, and axial coding were used.

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Open Coding was used to break down, investigate, compare, conceptualize, and categorize the data (Strauss & Corbin, 1990). Axial Coding assisted the researcher to develop procedures to reorganize the data in new ways after doing the open coding—by making connections among categories involved (Strauss & Corbin, 1990). The researcher applied the *Selective Coding* techniques by focusing on the categories involved to illustrate and demonstrate the procedure of choosing the core category and then systematically and methodically relates it to other categories (Strauss & Corbin, 1990). The aim of these processes of coding is basically to derive a principal issue or focus around which all other categories are integrated. This is what Strauss and Corbin call the "storyline that frame your account."

The data were collected from the TCPD of Accra covering a 13-month period. The data collection sources included: planning documents, archival records, participant observation, interviews, and direct observations. The use of multiple sources of evidence in this case study allows the researcher to *address a broader range of historical, attitudinal, and behavioral issues* (Yin, 2003, p. 97) associated with the Ghanaian planning agencies. A total of 38 professional persons in the approval workflow processing were interviewed as shown in Table 1. The main participants were selected TCPD staff, chosen based on eligibility criteria that the staff: (a) had experience in planning approvals between 3 and 10 years and (b) they were responsible for planning applications approvals system strategies and improvements. Though the researcher had wanted to interview respondents with an average experience of five years, this was not possible as most of the staff of TCPD have less than five years of experience due the massive retirement recession facing the department at the time of this research.

The Director, Deputy Director, and three Senior Planners (SP) from TCPD were the first group of respondents to be interviewed during the first month of study. Remaining in-depth interviews with the STCM members, inclusive of three Town Planners (TP), two Surveyors (S), three Architects (A), and four Building Inspectors (BI), were conducted after the researcher had spent three months embedded with the TCPD. In addition to the planning agencies respondents, two Developers (1 and 2) were interviewed at the TCPD development control department during their approval submission. Developer 3 was involved in the delayed case investigated.

The researcher queried preliminary background on town planning, career histories, experiences, and the perceptions of the delays of planning approval processing. The bulk of the interviews covered topics including the processing of building permits; the experience of those involved in assessing applications; issues and problems arising when carrying out tasks; teamwork and interdependency; and the factors influencing the swiftness of processing (focusing on task interdependence issues

Table 1. The sample		
Number	**Respondents**	**Frequency**
1	Director-Town Planner (D)	2
2	Senior Town Planners (STP)	3
3	Town Planners (TP)	3
4	Surveyors (S)	2
5	Architects (A)	3
6	Building Inspectors (BI)	4
7	Utility Agencies (UA)	10
8	Technical Officers (TO)	3
9	Developers (DP)	3
10	Accountant (AT)	1
11	Building Permit Applicants (BPA)	4
12	Total	38

Source: Field survey 2011–2012.

that influence timely approvals and taking into account skills, knowledge, and attitude of the planning team). At the end of each interview, the researcher asked for any other details and pieces of information that the interviewees felt were relevant.

To ascertain multiple sources of evidence, in addition to the interview, the researcher observed the working relationship of the respective agencies involved in the planning process. Informal discussions were held with workers apart from those documented as respondents. This way, the researcher better understood the actions, roles, and behavior of the case study informants (Spradley, 1979).

It should be noted that, in Table 1, the small sample size of three Developers and four Applicants was due to the fact that the scope of the current research was not to investigate the planning approval stakeholders' (applicants/developers) perspectives. Although stakeholders' perspectives were taken into account, the focus of the study was to investigate the application processing workflow in regard to the various planning agencies involved in the workflow process and, hence, involved a high number of respondents in that regard.

5. Results

The study used the GT analytic steps identified by Strauss and Corbin (1990) and as such used three types of coding practice (open, axial, and selective) to analyze the data collected. Open coding involved the progression of breaking down, scrutinizing, matching, theorizing, and classifying the data (Strauss & Corbin, 1990). This progression of coding is normally done to produce concepts which form part of the categories after grouping (Bryman, 2004). Axial coding offered a way of placing data back together in different ways after the open coding—this included identifying relationships between the categories involved (Strauss & Corbin, 1990) by relating codes to consequences, contexts, patterns of interaction, and cause (Bryman, 2004). Selective coding places the emphasis on providing clear evidence in selecting a core category by relating it systematically to other categories and prioritizing them in importance. In doing so, connections are validated and categorized (Strauss & Corbin, 1990). It was at the selective coding stage that the study identified "Streamlining of planning approval workflow processes" as the pivotal category to which all other categories relate.

The multiple sources of evidence lead to a range of interpretations when examining the development application workflow process. For clarity, this section has been divided into parts. The first part explains more of the quantitative and statistical analyses based on the data-set from the study. The statistics are included for the purpose of describing and demonstrating the nature of the existing complex and unstructured workflow process. The next section details the qualitative observations, participations, interpretations, and review of documents involved in investigating the role and behavior of the various planning-related agencies' workflow members.

5.1. Planning application lodgment and processing time

Table 2 shows the planning application lodgment statistics of applications determined in 2011. The Metro Committee held a total of nine meetings in 2011. From the data of all the development applications determined, the Committee determined a total of 672 development applications over all categories of development. Out of the 672 development applications determined, 564 (83%) applications were approved, 48 (7%) were deferred, and 60 (10%) applications were refused due to non-conformity.

The 2011 determined applications referred to in Table 2 include nine applications which were submitted in 2008 along with 48 applications submitted in 2009. Seventy-two applications were submitted in 2010 and 543 in 2011, respectively. This implies that there were backlogs of 72 applications that were submitted in 2010 but were approved in 2011. The average processing time was nine months. The fastest application was processed within three months and the slowest was over four years (from 2008 to 2011).

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Table 2. Planning application (lodgment) statistics 2011—determined applications							
Number of applications determined by month and year in percentages							
Submitted in 2008 but determined 2011	9	Percent of applications determined within statutory time frame	Average processing time within statutory time frame was 3 months	Average processing time outside statutory time frame was 4 years	Number of applications approved was 564	Number of applications deferred was 48	Number of applications refused was 60
Submitted in 2009 but determined 2011	48						
Submitted in 2010 but determined 2011	72						
Submitted in 2011 and determined 2011	543						
Total	**672**	**7%**	**3 month**	**4 years/93%**	**564/83%**	**48/7%**	**60/10%**

Note: This record is for the 2011 determined applications including overdue applications processed from 2008, 2009, and 2010.

Source: Field survey 2011–2012.

Analysis of the planning approval process highlighted two major areas of concern. Firstly, applicants must adhere to a series of unnecessary steps that influence the approval workflow process as depicted in Figure 1 and Table 3. As presented in Figure 1 and Table 3, an applicant follows excessively bureaucratic steps. This includes going to the Land Commission in person to receive land title ownership clarification; the buying of the requisite lodgment form (Form 1) from the Metro Works Department; and the paying of the approval processing fee at the Bank prior to acceptance of application lodgment. Following these steps is burdensome and can last up to several weeks before an applicant could complete the process and lodge an application. Secondly, the planning application workflow is unstructured and inconsistent, as individual workflow team members dealt with applications in a different manner.

The complexity of planning approval processing had considerable effect on the processing period of planning applications. The complex workflow has three main phases as shown in Figure 2—land matters, assessment, and decision/approval. The land matters phase largely involved the process detailed in Table 3.

It must be noted that the average time taken for each step described in Table 3 in practice, could, however take weeks and even sometimes months to go through some of the activities stipulated. Ideally, it would take a maximum of two days for Land Title Ownership Clarification/Verification Reports to be issued; however, due to certain malpractices often found in developing countries, this could be extended.

The assessment phase is where the STCM assesses the application and gives professional recommendations. The last and the final stage is the decision phase where applications recommended for consideration by the STCM members will be forwarded to the Metro Meeting presided over by the City

Figure 2. Illustrations of TCPD's three sequential workflows and task interdependence.
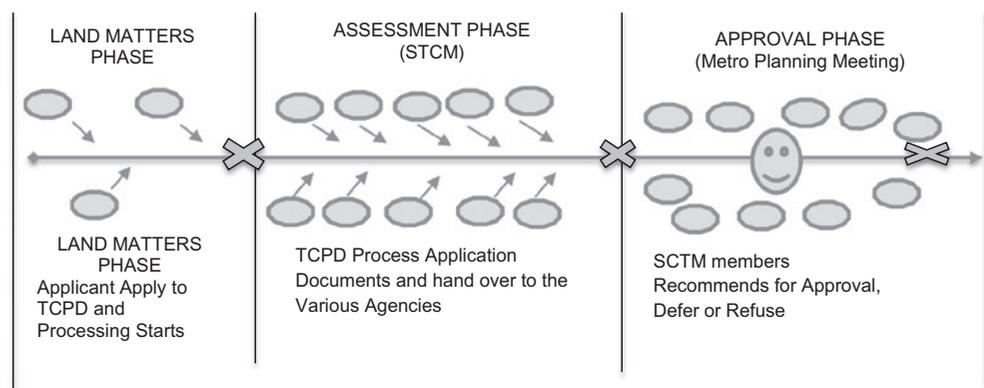
Source: Field survey 2011–2012.

LAND MATTERS PHASE

ASSESSMENT PHASE (STCM)

APPROVAL PHASE (Metro Planning Meeting)

LAND MATTERS PHASE
Applicant Apply to TCPD and Processing Starts

TCPD Process Application Documents and hand over to the Various Agencies

SCTM members Recommends for Approval, Defer or Refuse

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Table 3. The steps involved in application lodgment by applicants		
Steps	**Activities by applicant**	**Average time (days)**
1	Applicant buys and fills Form at TCPD	½
2	Applicant submits Form to Land Commission(LC) for land title ownership clarification/verification	1–2
3	Applicant returns letter of clarification from Land Commission to TCPD-Development Control Division(DC)	½
4	Applicant goes to Metro Works Department (MWD) to buy lodgment form (Form 1)	½
5	Applicant submits Form 1 to TCPD-DC	1
6	Applicant goes to TCPD-Account Division(AD) and fills payment forms	½
7	Applicant goes to Bank to pay building permit processing fee	½
8	Applicant makes photocopies of processing fee receipt	½
9	Applicant submits receipt to Account Division	½
10	Applicant submits proof of payment to TCPD-DC and lodges application	½
Duration	Average time(day) of application lodgment	7

Source: Field survey 2011–2012.

Mayor. It is of interest to note that the City Mayor's role as the chairman of the Metro Meetings was heavily criticized by respondents as he was sometimes too busy with other political issues and was known to postpone the Metro Meeting due to a busy schedule.

5.2. The role and behavior of the planning workflow members

The TCPD is responsible for bringing the professionalism of the respective planning agencies (STCM) together. Their main role was ensuring the approval process, including time and level of competency, remained on track.

> Director 1: My main task is to see to it the building regulations have been implemented. But as the overall director, I need to ensure that there are no violations of regulations/requirements. No delay on approval processing time. However, it is likely to have delays but not outside the limit. Let say beyond one year.

Assembling and coordinating various professional persons from the respective planning agencies to fulfill planning competencies were clearly a challenge for the TCPD, as they play the role of a middle man. In that role, they strive to ensure the expertise of other agencies members is accessed as the need arises.

> Town Planner: Approval processing is all about bringing various key players together. STCM consist of professionals of various major expertise. Look, I don't believe we cannot get the best out of such intellectual brains to solve our delay problems.

> EPA: To possess expert knowledge is one other thing, to bring it to work is another. We have engineers of different kinds, surveyors, architects, builders, draftsman, planners, firemen, water people, electricity, the inspectors—you know very well the experts involved.

Tapping into the componential performances of the various members therefore involved (1) the approval success principles and (2) stakeholders support success principles. In practice, all the town planning-related agencies coordinate and depend on one another, but each has a significant role and function in the process. The role of the TCPD is to liaise between agencies, provide vital application information, monitor the progress of applications, and facilitate and coordinate other approval

matters. An illustration of respondents' comments, which portrays the TCPD facilitatory role, is as follows:

> Director 1: He [the developer] didn't provide the necessary requirement so the committee decided to defer his application. We had several correspondences with the agencies to solve his problem.

> TCPD Planner: We spend some of our time solving problems for applicants who are not willing to comply. Our duty is to intervene. Being interfacing and coordinating.

It became evident that while the TCPD experts exhibited professionalism, their role was dominated and often undermined by other STCM members. One such example is that of the Hydrological Agency representative, who often argued points unrelated to his area of expertise (Hydrological services) during the STCM meeting, and thereby prolonged discussions. According to staff at the TCPD, the biggest challenge in the planning approval process was dealing with the incompetency of some of the STCM members and not the applicants. Others also apportioned the cause of the delay problems to both major planning approval stakeholders. A Town Planner clarified:

> Planner TCPD: The success of the approval is actually the combination of both parties (agencies and developers).

The lack of clear delineation of authority over the approval process makes the TCPD facilitatory role problematic, particularly during the land matter and assessment phases of the process. Although over 90% of the respondents agreed that the current system is causing delays, some argued that the STCM members' incompetency is not the main planning approval process delay factor. In their view, the system is being affected by unclear regulation rather than the behavioral effect of the workflow members.

> Hydrological Department: As long as there is clear regulation it will not cause approval delays. This is because the STCM members don't follow the approval process mandate.

> Architect 2: Actually avoiding the delays is also important. Curtailing delays will also make the public happy. In Ghana we are lacking this good process. It still falls on the TCPD, if they are good coordinators; they should be able to manage the approval processing well. Because "nsa ko na nsa aba" [give and take is better].

The delays were found to be caused by three aspects: through the behavior of the workflow members but within the workflow process and procedures; outside the workflow process but within the planning organization; and in the environment outside the workflow process and the organization in which it is being carried out. A myriad of delay problems occur during the approval process.

> Architect 3: In a technical line, there are always regulations and policies [and] so this is critical. ... there [is] always a request of considerations by applicants. This can only be achieved if one has the clear guidelines, the required knowledge and power to consider where necessary.

> Developer 1: One more thing is that there are discrepancies. They [TCPD] really don't have a system of operation and no realistic method.

> Developer 2: They [TCPD] must provide the right terms and condition, and the actual requirement to other stakeholders.

> Developer 3: So, you want to tell me they can't process common applications within 30 days. I don't understand them oh! Sometimes I think it is wickedness. It took over 3 years, I submitted 2008 somewhere, this November [2011] I had my application approved.

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The most common statements supporting workflow streamlining were demands for approval system improvement rearrangement, task interdependency, training opportunities, and widened participation and coordination initiatives. The most evident functionality issues included the failure of the approval system and the relative decline in efficiency as a result of staff shortages. The TCPD, although having over 90% of its application processing times outside statutory timeframes, nevertheless had a relatively low proportion of application processing deferral in 2011. If the numbers of deferred applications in various categories was significantly higher, it could be assumed that there was a defect in the pre assessment (checking on lodgment) of planning applications by the TCPD. There are clear streamlining opportunities to exploit. The members of the STCM interviewed see restructuring as an important dimension. The aspects supporting organizational restructuring include the TCPD/STCM roles, behavior, policies, and regulations. Organizational behavioral factors included professionalism and competences, skill sets, and workflow members' expertise and experience. This led to the identification of a number of workflow improvements and recommendations.

6. Discussion

The analysis confirms that organizations such as TCPD with a workflow process that involved several professional persons and various agencies perform poorly (Sherman & Keller, 2011). Workflow process with various professional members (i.e. involving various skills sets and tasks) often have more complexity issues than those with a simple structure (Ellis and Keddara, 2000). As Tohidi (2011) noted, teamwork, leadership style, training, goals, size, motivation, measurement, and information technology also can be a way for workflow members to improve their performance for higher productivity. Research in workflow process (Ellis and Keddara, 2000; Ibrahim & Nissen, 2007) and knowledge-based workflow (Mengoni, Graziosi, Mandolini, & Peruzzini, 2011) provide evidence that including certain group members and behavior associated with level of professional expertise impact the flow of knowledge and affect the workflow process.

According to Chow (1999), workflow is a complex activity demarcated for particular purposes. Chow explained that the connection between workflow activities regulates the complex flow of the workflow configuration. That finding is parallel to the findings of the current study, which identifies a mass of interconnecting complexities and uncertainties. This study relates to uncertain situations where the planning agencies are not sure of their environmental factors (such as the TCPD being unable to predict the number of planning applications they will receive in a day).

One of the respondents mentioned processing difficulties and how the process is impacted by numerous regulations and policies which make it difficult to make quick decisions. The results posit that while the process appears to be routine, in reality, it is a non-routine workflow process and as such the approval process is uncertain. Although various procedures have been used to determine uncertainty in an organizational environment, researchers found differences between organizations. The rate of uncertainty may differ from organization to organization. This proposition resembles the Lawrence and Lorsch (1967) concept that uncertainty was an outcome of clarity of communication and informed responses. What became clear through the research was that the processing uncertainty was affecting how knowledge flowed between the STCM members. This is because the information from one expert to another was impacted. The individual member's uncertainty was not critical, as it was not severely affecting the knowledge flow (information). Individual professional members weren't lacking knowledge, but they did require the information from each other to continue the workflow process.

Planning approval processing agencies and stakeholders consist of applicant/developer, development project consultant, TCPD, the 10 agencies, and other interested parties from the government (such as the Mayor). The TCPD was therefore working with a diverse group of professionals and government officials to approve permits for applicants. They were typically the direct contact with the applicant/developer and as such must manage the tension between developer expectations and what is practical and in line with development control policies. The TCPD has a big responsibility toward developers, as they must anticipate the developers' needs and fulfill them (Chess, Dietz, &

Shannon, 1998). Getting it right for TCPD was a challenge as some of the stakeholders did not possess the technical knowledge for informed decision-making (Amendola, 2002).

Unreasonably, but not uncommon in the development industry, the developers' aspirations are high and they ideally want their applications to be approved instantly. However, developers must also take responsibility for some of the failures as they should also provide proper documentation to avoid delays. In planning, both private developers and public authorities endeavor to resolve planning issues (Dear, 2000). This can best be realized where there is cordiality among the stakeholders throughout the workflow structure.

The empirical results of the study found the workflow process structure of the planning agencies fragmented with several imbalances. The results support the literature findings that "structure follows strategy" as posited by Chandler (1962). This is because a complete top-down structure is difficult to accomplish planning workflow due to the complexity of coordination and integration among professional members (Healey, 2006). Chandler's prominent structure proposition is very straightforward in the sense that the internal structure of an organization must be complementary to the collaborative strategy. The results demonstrate that the approval workflow structure involves organizational formations, such as formalization and centralization. Moreover, the results found that the planning agencies have high formalization and centralization. These formations are contrary to the manager leadership dimension as explained by Burton and Obel (2004). The results support the claim that an organization must choose its strategy before designing the type of structure to be followed or, as the data proved, high centralization and high formalization affect the approval workflow process.

The planning agencies' own description of their workflow processing structure revealed failures in the way they handle planning application processing. These failures can be used as an overall framework for discussing the workflow processing structure:

- The planning agencies were found to have no clear procedures to guide them in the application processing. There is no clearly defined process map for approval processing.
- The TCPD have no organizational chart. They have a poorly defined structure that hinders the linkage of job titles and descriptions to reflect the various organizational units, divisions, and functions, thus affecting the relationship between positions and expertise.

The poor structure tends to affect lines of authority (thus affecting the decision-making positions among the staff). Inappropriate lines of authority diminish power to allocate tasks and delineate activities within the workflow process. Cognizance of hierarchy is very important when organization intends to design a structure rather than when an organization is to design a strategy as explained by Amburgey and Dacin (1994). Though this result does not contradict the early "structure follows strategy" argument by Chandler (1962), the results proved that the TCPD/STCM members lack strategies in structuring the workflow process.

It was found that the TCPD is neither operating under a clear divisional organizational structure nor a functional structure. Although it is unclear, when considering the nature of the planning approval agencies, the current structure does however appear to be more closely aligned with a divisional approach. This revelation makes it appropriate to talk about the current structure. Divisional structure reduces interdependency of sub-units. It also decreases coordination among sub-units. As a result, the TCPD top management is not directly participating in operational and tactical matters. The study identifies an opportunity for top management to enjoy the benefits of proper structure and be good administrators of their own workflow process.

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6.1. Planning approval workflow improvement recommendations

Though this study is not structured to compare planning systems from different countries, it is nevertheless appropriate to use successful well-structured systems as a good model. One such example is the Malaysia "One Stop Center-OSC" concept where applicants/developers submit applications at a particular department without facing all the responsible departments/agencies individually. The old traditional planning system before the implementation of the Malaysian OSC was also characterized with many of the delay problems mirroring those of the current Ghanaian system. With the OSC, the heavily sequential workflows were reduced, thereby making the system very efficient and processing development approvals within three to six months. The OSC has proven to be efficient and effective with recent developments in planning approval such as electronic submission (e-submission) of applications and electronic approvals (e-approval) (Rashid, 2012). Considering the appraisal and acclamation of the OSC, this model could be a good example for Ghana.

Table 4 presents the summary results of the development application workflow analysis of the Ghanaian approval system from various sources of evidence. Each of the workflow factors encompasses the broad categories of substantive issues that warrant modification. When attention is paid to the issues, different implementation recommendations arise based on procedural and regulatory implications. This tiered approach for consideration is derived from the assumption that regulatory organizational changes require statutory changes which take longer to achieve. The main practical factors affecting the application process are: applicants' perceptions, meetings, delegation of decision-making, organizational structure and staffing, application lodgment process, procedural responsibility, and the standard of applications. In discussing the applicants' perceptions of the development process, a series of clear concerns became apparent. To summarize, the major concerns revolve around: lack of clear guidelines and information, lack of consistency in implementation of standards, and ensuing lack of confidence in the system.

As previously detailed, the roles and objectives of the STCM members are unclear and require clarification. Through examination of the process, it is clear that all proposals are currently referred to the Mayor as the final decision-maker. Given the high number of proposals and the number of minor

| Table 4. Key issues, recommendations, and implementation for the planning approval process			
Factors	**Issues**	**Recommendation**	**Implementation**
Applicants' perceptions	Lack of consistency.	Provide clear guidelines and information on approval procedures.	Effect changes in the system to regain public trust. Embark on public information campaign.
	Ensuing lack of confidence in the system.		
	Unresponsive system.		
Meetings	Lack of professionalism.	Consideration should be given to procedural change.	Introduce standardized agenda.
	Lack of preparation and/or inconsistent standards.		
Delegation of decision-making	Unclear roles and objectives of the STC.	Mayor should delegate decision-making powers on minor proposals to the STC Chairman and/or the Director TCPD.	Transparency of delegations and consistency of decision-making.
	The Mayors involvement and associated time constraints.		
Standard of application	Substantial variation in the standard of application documents.	Review of guidelines for submission of development applications.	Updating and review of guidelines.
Application lodgment process	Frustrating steps with a number of agencies.	The applicant lodgment process should be simplified.	Create a OSC for application lodgment.
Procedural responsibility	Torturous path that involves several agencies external to the TCPD.	The TCPD should be responsible for the entire approval process.	Modification of the process is considered a high priority.
Organizational structure and staffing	Disconnect between the functions of the TCPD and other agencies.	Modify organizational structure of the TCPD for clear reporting and task grouping and allocation.	Effect procedural changes before regulatory changes where possible.
	Lack of clarity of task.	Job description forms should be developed for each position.	

proposals forming a part of that number, it is questionable whether the Mayor should be utilizing his time to review applications of a minor nature. As such, it would be a more effective use of the Mayor's time, and that of the STCM, if the Chairman of the STCM, was to determine applications of a minor nature without requiring referral/approval to the Metro Meetings and the Mayor.

The STCM Chairman and/or the Director TCPD should determine all applications for single residential dwellings (inclusive of fences and outbuildings) without the need for referral to the STCM, unless an application requires consideration by the STCM on the basis of complexity or precedence setting.

Examination of a number of proposals has indicated that there is a substantial variation in the standard of application submitted. This is of particular relevance to the standard of plans/technical drawings lodged. The acceptance of irregular and, in some cases, substandard applications makes assessment difficult and wastes the time of both the applicant and assessing officers, as their time is frustrated through an inability to process the application. While there is a current checklist entitled "Guidelines for Submission of Development Applications," it is clear that the Guidelines are not enforced. This is neither good for the applicant or for the processing authorities, as substandard plans and documentation only cause delays and further reworking. The checking of applications on lodgment should be done by a dedicated lodgment officer who has sufficient training to read plans and understand the nature of the information required. A Town Planner is not required to be in attendance where an application is being lodged, unless the application is of a complex nature. In such instances, the applicant should make an appointment with a planner to ensure that all specialist reports required are lodged appropriately.

Development applications currently follow a somewhat torturous path that involves several agencies external to the TCPD. One of the most confusing aspects of the approval process is that of the seemingly interchangeable roles of the TCPD and the Metro Works Department. For example, applications are lodged with the TCPD, processed by the STCM through TCPD, but the Form 1 is sold at MWD and the approval permit "Certificate" is issued by the Metro Works Department. There are several other puzzling agency roles in the process such as the Chairperson of the STCM from the Department of Urban Roads. While the Chairing of the STCM by a person from another agency is in itself not problematic, it should be made clear which agency is responsible for the planning approval process as a whole. It is recommended that the TCPD be responsible for the approval process from

Figure 3. Recommended Process Map. Application submitted to the TCPD without going through all the other related planning agencies.
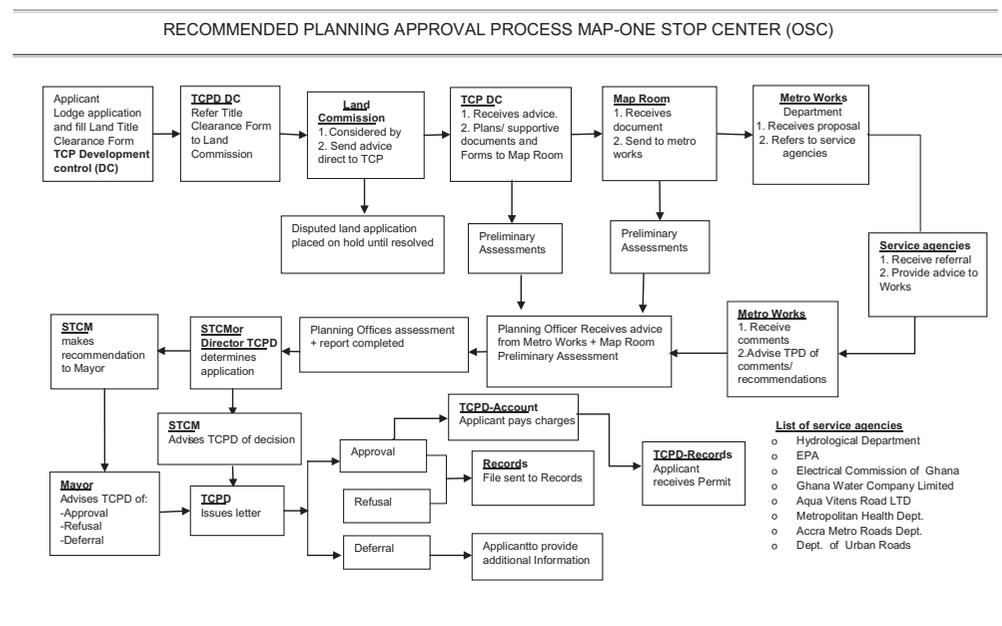
beginning to end. If no one agency is responsible for the success or failure of the process, then it is less likely that positive procedural change will occur as each of the agencies can claim (whether rightly or wrongly) that it is not their part of the process that causes delays. Figure 3 provides a recommended replica of OSC concept which reduces heavily sequential workflows of the existing system. This will make TCPD the sole agency responsible for permit issuance. If one agency has complete ownership of the process, then they are clearly responsible for process improvement initiatives and can be held accountable for any discrepancies and unnecessary delays in the approval process.

As previously detailed, there is a serious disconnect between the functions of the TCPD and the roles fulfilled by other agencies. While some of these issues can be addressed through the procedural changes recommended, there is another opportunity to group "like" functions within the same agencies. A prime example is that the Building Inspectors are situated in the Metro Works Department. This spatial differentiation is burdensome. Given that the TCPD should be given ownership of the approval process, it is logical that follow-up inspections and compliance/enforcement should be linked within the same agency. Another issue is qualified technical officers losing valuable time by dealing with minor applications. Checking proposals/applications are time-consuming, but capable of being handled by a suitably trained information officer or an assistant planner. Other areas of improvement identified include: overhauling of the record-keeping system (numerous instances were observed where a file could not be located or there was time wasted in locating or organizing a file); organizationally, there is a lack of clarity as to what tasks individual officers should be carrying out, and at whose request; there is a lack of clear reporting structure, and therefore accountability for general performance; there is a lack of clarity of roles; and a high degree of double handling of tasks that would be better allocated to specific positions.

Clear terms of reference should be established for multi-functional teams and alignment of organizational goals must be drawn between the three service areas to ensure a "silo-mentality" does not result. As depicted in Figure 3, the Building Inspection function, Form 1, and Building Certificate issuance should be the functions of TCPD. Also, consideration should be given to the deployment of staff in the role of "Information Officers." Information Officers can be junior or trainee staff, who are dedicated to the role of providing the immediate point of contact with members of the public. A centralized records storage area should be established and set for each section and position. Key Performance Indicators (KPIs) should be reported against on a yearly and monthly basis to the Coordinators, Deputy Director, and Director. Clear alignment should be drawn between the Organizational Strategic Plan (1–5-year plan for the organization) and service provision. Given that there are a series of recommendations, implementation timeframes will vary. However, introduction of some of the measures can be immediate with others in the medium term.

7. Conclusion

The findings suggest that a complex workflow system tends to limit knowledge flow, increase interdependency rate, aids knowledge regression, and doubles discontinuous membership. These factors alone are not significant enough to influence the behaviors of workflow members. The quality of clarity (indicated by aspect such as inter-organizational collaboration, teamwork, leadership and management style, strategies, and organizational differentiation) is a dominant component in the streamlining of planning approval workflow process. While these findings are relevant for the planning and implementation of restructuring the Ghanaian planning approval process, there are a number of factors that should be considered when interpreting these findings. The analysis only draws on data gathered in a single municipality (TCPD) Accra and data didn't cover organizational motivation, such as corruption and malpractice, which is endemic in the developing world. These two factors are likely to have had a significant influence on workflow members' behavioral outcome for the study population. Nevertheless, the study offers 11 major recommendations;

- Creating a OSC system to reduce heavily sequential workflows.
- Formulating clear alignment between the Organizational Strategic Plan.

- Establish clear terms of reference for multi-functional workflow teams.
- Develop cohesive strategic and technical plans between service provision agencies.
- Establish a centralized archival records storage area for each section and position.
- Key Performance Indicators (KPIs) should be reported against on a monthly and a yearly basis.
- Mayor delegates decision-making powers on minor proposals to the STC Chairman and/or the Director of TCPD.
- The checking of applications on lodgment should be done by a dedicated knowledgeable lodgment officer.
- Encourage best performing staff with incentives and rewards.
- Introduce periodic overhauling of the record-keeping system.
- Introduce new software and organize workshops and training for staff.

The findings suggest that rules, regulations, and policies can be used by the respective planning agencies as a planning tool for higher workflow improvement and performances.

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