Interconnectedness of Factors Dictating the Present State of Building without Permit in Some Peri-Urban Communities in the Kumasi Metropolis, Ghana

1, 2Bismark Quarku Parker*, 1 John Agyei and 2Isaac Pratt

1Institute of Research, Innovation and Development (IRID) and 2Dept. of Building Technology, Faculty of Built and Natural Environment, Kumasi Technical University, Kumasi (KsTU) *Corresponding author: bismarkparker@gmail.com

Abstract

The study was undertaken to show the relationship among factors accounting for building without permit in the Kumasi Metropolis. Understanding the connections among such factors and their associated effects would enable solutions that are focused at the entire system of building regulation rather than the piecemeal approach. Key informants in three selected peri-urban communities in Kumasi were interviewed. Secondary information was also gathered through review of relevant literature. Subsequently, the interrelatedness of these factors was created in Vensim using the causal loop diagrams. The study found out that land custodians are major players contributing to structural development without permit. Factors such as rent charges and the quest for owning property increase demand for land and subsequently, structural development. The study revealed that the existing coordination between the state actors and land custodians, has not inured to the benefit of effective control of unauthorized development. Also, land custodians in their bid to ensure that their clients secured lands, tend to encourage commencement of building even without the requisite permit. The study suggests that land custodians are central to the regulation of building construction and are among the actors that impose dynamic effects on the system. Therefore, a framework that integrates all stakeholders especially land custodians in the process of permit issuance is recommended.

Key words: Building Permit, Land custodian, Regulator, Construction, Systems

Introduction

Buildings form key constituent of the built environment in settlements all over the globe (Yankson & Bertrand, 2012). They provide shelter and safety for people, animals and materials; and they also serve as place of work for many occupations, particularly informal sector operators. In order to promote overall well-being of people, built environments are properly planned to enhance access and or proximity to roads, houses, parks among others. It is therefore, expected that structural development is carried out in accordance with plan to ensure attainment of congenial environment (Botchway et al., 2014). Such plans could be changed entirely or modified (rezoned) to meet current needs guided by regulation.
To ensure adherence, it is required that a permit is obtained ahead of plot development in accordance with the National Buildings Regulation L.I. 1630 (Republic of Ghana, 1996). In Ghana, building permit is the authorisation, certification and or consent granted by the district, municipal or metropolitan assemblies (MMDAs) for commencement of structural development. Thus, building without permit is illegal and could result in demolition or imposition of fine by the respective local assembly. Despite the existence of National Buildings Regulation (NBR), many buildings in towns and cities in Ghana are constructed without permit (GhanaianChronicle, 2003). The situation has resulted in erection of unauthorized buildings and such occurrence has been cited as the root cause of building collapse, inadequate access and flooding in major settlements in the country (Ametepey et al., 2015)alteration of building structures and execute works or install fittings in connection with any building. Although, this regulation has been enacted, its implementation is questionable. The aim of this research was to assess factors affecting the implementation of the NBR and measures to enhance smooth implementation of NBR in Ghana. Interview and questionnaire survey were the two principal methods used to elicit data from 180 respondents. Three (3). But what reasons account for the putting up of structures, both residential and non-residential, without legal authorisation which have led to haphazard development of settlements in Ghana? This is a perplexing issue confronting individuals, corporate entities, professionals in the construction industry and planning authorities.

It appears that the practice is not stopping anytime soon. This is because buildings can be constructed only when there is land and in this case, the sale or rent of land is done without the involvement of the regulator. In Ghana, land custodians are not regulators except where the land is leased by the local assembly. It is interesting to note that a relatively large chunk of land in Ghana (78%) is directly under the control of traditional custodians including stools/skins, families, clans and individuals while the remaining 22 percent is vested in the state and the President (Owusu & Agyei, 2008). In view of this, if the lessees do not apply for permit and the regulator fails to locate and stop any of such unauthorized developments, the structures are erected and occupied. The recurrence of such trend could account for increased unauthorized developments. Hence, appropriate strategies to curb non-compliance with the national building regulation especially acquisition of permit prior to commencement of plot development must include bridging the gap between the regulator and lessors. The study therefore, sought to explore interconnectedness of factors dictating the present state of building without permit and assess their relationships and strengths.

Some studies have identified factors accounting for the high incidence of building without permit in Ghana (Hammah & Ibrahim, 2014; Mensah & Antwi 2011). It is however, important to note that these factors may have some connection resulting in cause-effect relationships; hence, the need to establish the relationships and feedbacks. Cause-effect relationship is not necessarily linear. Consequently, listing the factors even in chronological order would not show the true connections needed to yield the requisite feedbacks. Thus, studies of the systems are important for identifying the various system components and understanding the behaviour of the system.

**Reasons for Building without Permit**

A building permit for structural development is usually granted after a thorough assessment of documents submitted by a lessee to the issuing body. The process of building permit acquisition differs among the regions in Ghana. For instance, while an indenture is the main requirement to initiate the process in the Brong Ahafo Region, a lease is required in the Ashanti Region.
A brief description of the process in the latter involves submission of documents (lease and proposed drawings of building) to the Town and Country Planning Department (TCPD) for verification and authentication. Thereafter, the documents are forwarded to the Technical Subcommittee where drawings are vetted subsequent to which the Statutory Planning Committee considers the outcome of the various assessments and decides to approve or reject the request for permit. The process is not fast, smooth and friendly; hence, developers find it convenient to proceed to construct without acquiring a permit (Kpamma & Adjei-Kumi, 2013; Hammah & Ibrahim, 2014).

Some recent studies have explored the factors accounting for building without permit in Ghana. For instance, Adjei Mensah (2014) identified six major factors contributing to the growth of informal settlement in the Kumasi Metropolis. These were socio-economic, cultural, institutional, historical, physical and political factors. For instance, high rent charges coupled with low income levels of majority of workers were among the important socio-economic factors while corruption and delays in processing of permit applications characterized the institutional factors.

According to Agyeman et al. (2016), the challenges include delays and cumbersome processes associated with acquisition of building permit. The results of their study conducted in the Sunyani East and West municipalities showed that there is the tendency for increased applications for permit if regulators respond to the applications and grant permits on time. In addition, data inaccessibility, absence of coordination among land agencies, inadequate staff and financial capacity as well as inappropriate technology are factors contributing to building without permit. Ametepey et al. (2015) also identified corruption, absence of public education, political interference, and ambiguities in some sections of the National Building Regulations as factors contributing to building without permit. Meanwhile, according to Botchway et al. (2014), inadequate logistics and understaffing of regulatory agencies hinder their ability to effectively check unauthorized developments.

It is also asserted that problems associated with land transaction such as insecurity of title and undocumented land transactions in the urban and peri-urban localities (ISSER, 2005; Somiah & Aidoo, 2015) could trigger construction of unapproved structures. These problems undermine permit process in two ways. First, those who doubt the tenure security of plots acquired are eager to establish their presence on the land in order to avert any threat of losing their stake. Secondly, the acquisition of lands without proper document weakens the ability to acquire permit. The surest way out in these situations is for developers to flout the building regulation by constructing their houses and thereby occupying their properties.

It is important to note that identification of the factors accounting for building without permit is good but does not really help in finding effective solution to the problem. This is because these factors themselves do not explain the reasons for the construction of buildings without appropriate authorization from the institutions mandated to ensure orderly development of settlements. Thus, a list or ranking does not necessarily help in providing the needed answers for addressing this menace. There is the need to show how the factors interrelate and contribute to the problem. This calls for the use of an integrated approach for effectively checking the construction of unauthorized structures.

The key research question is what is the interconnectedness of factors dictating the present state of building without permit? The specific questions were:

a. What is the linkage between the regulator (TCPD, Survey Department, MMDAs, etc.) and custodians of land in ensuring orderly development of settlements?
b. What are the motivations for land custodians to urge prospective developers to build without building permit; and what are the likely consequences?

c. What are the causes of the delay in permit application?

**Conceptual Framework / Context**

The study adopted the system dynamics approach in exploring the cause and effect relationship of factors within the boundary of building construction industry in Ghana. Financial reward for the sale or lease of land, the quest for development of community (increased infrastructure and population) and increased demand for land are vital factors affecting leasing of lands by custodians. Buyers or developers are at the centre of the incidence of the situation of building without permit. Their contribution to the problem can be alluded to poor documentation amidst seemingly disregard for documentation resulting in tenure insecurity (i.e. ownership is evidenced by physical development) and taking advantage of the poor coordination between custodians and regulators. The key purpose for permit issuance includes ensuring health, safety and shelter for the population. However, this is negatively affected by bureaucratic delays, data inaccessibility, low level of coordination among land agencies, inappropriate technology and inadequate logistics.

Vensim PLE version 6.1c (1988 – 2013) was the system dynamics tool adopted for this study. Information on these factors were gathered from literature and their connectedness as well as feedbacks were structured (Haraldsson, 2000). The process was followed in Vensim to form the base system from which the whole system was generated.

A system is defined as grouping of parts which operate together to attain a common goal. In other words, it is a set of elements standing in inter-relations. A system connotes interdependence and interconnections within an organization, between organizations or individual organisation and its environment. In this context, property owners (developers), custodians of land and the regulator work to ensure decent and improved housing in planned settlements. This is a feedback system, and according to Forester (1980), “a feedback system generates growth processes wherein action builds, a result that generates still greater action”. That is to say, past action influences future action which is behaviour of a closed system. In a positive feedback process a variable continually feeds back upon itself to reinforce its own growth. In this system, an integrated approach in processing of application for building permit will trigger further improvement in overall welfare. The approach could be likened to Goodman’s snowball effect (1980). According to him, as snow rolls down a mountainside, picks up snow, its mass and circumference increase which cause it to grow and move faster. In effect, actions and outcomes at the collective level emerge from the actions and interactions of the individual components that make up the collective.

The factor at the tail of the arrow is the cause, while that at the head is its effect. Where a positive sign (+) is indicated at the arrow head implies same direction (as in, increase in A leads to increase in B) while a negative sign (−) implies movement in opposite direction (thus, increase in A results in a decline in B). Finally, equal sign (=) arrow was used to indicate delay in the system.
The causal loop diagram (Figure 1) indicated that increasing rent charges increased in residents’ quest to acquire residential property in order to avoid exorbitant rent. This is similar to an observation made by Adjei Mensah (2014). The situation further increases the search and demand for building plot resulting in greater motivation for land custodians to lease lands. The demand together with the financial gains to custodians could also explain the multiple sale of same land, which is the root cause of land litigation in key settlements of commercial and administrative importance (Owusu & Agyei, 2008). In effect, lessors motivate the lessees to commence development so as to secure the land. Their decision is to ensure that their customers do not lose the land and demand refund of the monies paid. Since land disputes abound in many communities in the country (Maxwell et al., 1998; ISSER, 2005), those who acquire lands are in a hurry to build and will not wait to go through the permit application process.

It should be understood that these custodians are responsible for issuing lands and without their consent, structural development cannot proceed. Because they reside in the community, they have effective mechanisms (use of taskforce and informants) for cracking down on people who disregard their orders. Despite encouragement from the land custodians for structural development to commence (usually without a building permit), the financial capacity of prospective developers as well as prices of materials and services would also influence the process. When prices of services and materials rise, structural development is likely to slow down resulting in a negative relationship between the former and latter factors.

**Role of the land custodian in promoting orderly structural development**

The second part of the causal loop is named ‘custodian control’ (Figure 2) to show the influential role that custodians play in driving the process of curtailing unauthorized buildings. This causal loop considers the case where lands given out by custodians are done in collaboration with the regulator. The approach has the potential to reduce litigations among developers, harassments and erection of unauthorized structures. After all, the aim of enforcing the National Building Regulation is to ensure safety and well-being of the people but not to punish. This is why creative alternatives to enforcing same must be sought.

Moreover, decreased unapproved structural development is in the interest of the community development as a whole. This is so because, the existence and spread of unauthorized structures would decrease land for community development in the future. Where lands for parks, markets
and schools are given out for residential developments, there is a greater tendency that such social facilities would not be available (this would call for residents travelling long distances to access such facilities elsewhere). Meanwhile, where lands earmarked for specific social purposes are put to use for the same, the land custodians and the community would stand to benefit in the long run.

![Diagram](image)

**Figure 2:** Custodians in partnership with inspectors

It is important to state that site inspection and consensus especially together with the land custodians (Figure 3) would ease the process of document clarification and authentication that could otherwise delay permit issuance. Therefore, from the perspective of this study, permit issuance would increase with site inspection and this holds positive implications for structural development. When applicants get convinced that the regulators work strictly on documents and issue permit, trust for local authority would increase and more applications would be submitted. The land custodian is therefore very important in the process of permit issuance; hence, state agencies must initiate the process to engage them so as to curtail unauthorised developments.

![Diagram](image)

**Figure 3:** Information flow and coordination between land custodians and state institutions
Using key informant interviews to validate the role of land custodians to promote authorized structural development

Data Collection and Analysis

The study used qualitative data obtained from primary source because the issues involved pertained to attitude and perception of the stakeholders, which were very difficult to measure numerically. Personal interviews were conducted among developers, traditional authorities and professionals in the building industry and in-depth interviews using key informants. The respondents were purposively selected in order to have the views of all stakeholders. Geographically, the respondents were selected from three peri-urban communities within the Kumasi Metropolis; namely, Ayeduase, Gyinase and Kyereapatre.

The key issues which formed the basis for the interview guides included relationship between traditional authorities and building regulator, motivations for land custodians to urge prospective developers to build without permit and the consequence that confronts developers for taking this advice or not. The interviews were transcribed and later analysed through content analysis. This deductive approach was deemed appropriate in view of the fact that the study had limited time.

Background Characteristics of the Respondents

A total of 15 persons comprising 10 males and 5 females participated in the study. They were aged between 26 and 65 years with an average of 45 years. The majority of them (53.8%) were below 45 years old. In terms of marital status, the study revealed that the majority of them were married (80%) and the remaining 20 percent indicated that they were widowed or separated.

Regarding educational attainments, all the respondents had formal education ranging from primary to tertiary level. With respect to type of occupation pursued, they were teachers, traders, artisans, surveyor, planner, and civil engineer among others. In terms of study objectives, the respondents comprised land custodians (4) developer (8) and regulator (3).

Existing Linkages between the Regulator and Land Custodians

The results of the survey indicated that the existing linkages between the regulator and land custodians are not effective to ensure orderly development of the city. It emerged from the interviews that layout plans of settlements are always changed by the chiefs. According to them, when a new chief is enthroned, pressure is brought to bear on the planning authority to rezone whereby plots reserved for community facilities including parks, lorry stations/bus terminals, educational and health facilities and green belts are changed and sold. Unfortunately, the local political authority seems weak in resisting such attempts for the fear of becoming unpopular and being voted out. They tend to forget the masses who suffer from their inactions as the communities develop without these facilities.

Information gathered from interviews revealed that land custodians are able to ensure orderly development in their respective communities. This is because they wield the power to lease land, they are highly respected by developers, they live in the community and they get access to first-hand information from their subordinates.
The Urge to Build without Permit

The study sought to investigate the dichotomy between land custodians and developers regarding acquisition of permit prior to commencement of house construction. The property developers’ view was that “If the landowner asks you to work on the land and you want to wait for permit, you will have yourself to blame. This is because either the landowner that you had transaction with or somebody (family member or someone else claiming to have interest) will sell the land to another person; and by the time you realize there is a house on your plot. And the practice is that the one who develops that land would have upper hand in retaining it”.

A respondent recounted his ordeal when he ignored the advice of the land custodian with the intention of wanting to get all the relevant documents before commencing construction of his house. According to him while waiting to go through the permit acquisition process, somebody built on one of the plots acquired. This compelled him to commence construction without a proper title or permit. According to him, he has regretted not following the advice of his landowner. This was how he recounted his experience: ‘it would have been better for me to have commenced work and incurred the wrath of the regulator and pay penalty than losing that plot. In fact, I do not know whether the lost plot would be replaced by the land owner or not” (property owner, Ayeduase).

It was found that unofficial statements of some state officials gave credence to the stance of custodians that one does not need to wait for permit before commencing structural development. For instance, one of them recounted his experience when somebody encroached on his plot and started building (without permit) while he was waiting for a permit. He petitioned the Kumasi Metropolitan Assembly. According to him, in the course of discussion, an official of TCPD suggested that he should have walled the plot before or while going through the permit application process. He even added “you are not the only person who is law abiding citizen in Ghana”. This amounts to blaming the law abiding prospective developer, and this constitutes a tacit approval of the stance of land custodians.

Delays in Processing of Building Permit Application

Analysis of the interviews conducted revealed divergent views of respondents. That is, while some interviewees (property owners) indicated that they were aware that one required a building permit for structural development. A few of them claimed that they did not know that one should acquire the permit before structural development. They thought that it could be acquired alongside building. They expressed concern about the relatively long time for processing a permit application and since tenure security is a major challenge, it is almost impossible to wait for a building permit. According to them, their major fear was that someone else would develop the plot and make them become losers.

The views expressed suggest there are three levels of awareness of the populace on the need to obtain building permit. There are those who knew of the existence of the regulation, understood the procedure and processes, and applied themselves to it. The second group was aware of the regulation but lacked understanding of the processes involved; hence, dared to make an attempt to apply for permit. The last group was completely not aware of the need for acquisition of building permit before structural development.

Information gathered from the officials of TCPD (building inspectors) indicated that most developers were not aware that they must obtain a building permit prior to structural development. The technical experts set their estimation of unaware population to about three
out of every five property developers in Kumasi. This is consistent with the view of Somiah et al. (2015) who assessed house-owners’ knowledge of the regulation and issuance of building permit. The high proportion of population of developers that is unaware of the regulation could explain the high degree of resistance and non-compliance to the regulation.

The views of some property owners suggest frustration and disappointment with the system. One house owner indicated that when he had waited for three years (2008-2011) without securing a building permit, he got fed up and decided to go ahead with the construction. According to him, he completed the structural works and roofed the house before he finally received the permit after five years (2008–2013). He indicated that by flouting the regulation, he made financial gain since the prices of materials and labour were rising. It is believed that stories like this convince others to side-step the regulation pertaining to structural development.

Complaints on the delay in processing of application was almost everywhere among developers. This encourages developers to continue to build without recourse to the laid down procedure relating to housing development. There are people who are ready to take advantage of the absence of strict enforcement of the building code. This was how one of them put it: “we are willing to pay penalty or fine for breaching the law and thereby taking advantage to avoid effect of inflation on the overall cost of the project. I am certain that securing my land and avoiding effect of inflation are more beneficial than the penalty or fine that would be imposed”.

Conclusions and Recommendations

The systems dynamics framework was useful in exploring the connectedness of the variables that contribute to building without permit. The relationships exposed issues that have been less thought of as vital avenues for addressing the challenge. The study therefore concludes that building without permit is determined by factors that strongly connect with each other. Therefore, it should be viewed from the systems perspective than just a presentation of a list or ranking of factors. Thus, the study showed that inclusion of land custodians as key stakeholders in the issuance of permit would reduce some long documentation and verification processes and thereby increase efficiency and delivery. Therefore, a framework that integrates state agencies, land custodians and lessees is recommended for checking the springing up of unauthorized structures with serious ramifications for residents.

Owing to the fact that land is the main asset at the disposal of chiefs and other traditional leaders, such persons must be provided in-depth knowledge on land use management and related issues. To make this relevant, there should be capacity building programme for stools to enable them display grasp and understanding of issues on land management and planning.

Also, state agencies could have an arrangement with the land custodians to ensure occasional fora where developers would be provided with reliable information and also given the benefit to initiate the documentation process. Thus, the state agencies must reach the people at all cost. It is expected that by creating close relationship with land custodians, these agencies could maximize compliance and minimize non-compliance (permits).

It is also suggested that MMDAs and other agencies which are responsible for spatial planning should collaborate with land custodians in the various settlements within their respective districts. The situation whereby the regulator comes up with master layout (settlement plan) without active involvement of the owners of the lands should cease.
References

Journal


Book Chapter


Working Paper


Conference Proceedings


