UNIVERSITY OF GHANA

DEPARTMENT OF GEOGRAPHY AND RESOURCE DEVELOPMENT

STREET ADDRESS SYSTEM AND DELIVERY SERVICE: THE CASE OF COURIER SERVICE OPERATORS IN THE ACCRA METROPOLITAN AREA

PETER OFORI-ATTA

10170117

THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF PHILOSOPHY GEOGRAPHY AND RESOURCE DEVELOPMENT DEGREE

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DEDICATION

I dedicate this work to my caring Grandmother, Anna Amo, and Aunts Cecilia Kwofie and Monica Domina who tirelessly struggled to raise and care for me with minimal resources when all hope was completely lost. Your love, kindness, encouragement, strong work ethic, sacrifice, and advice will always be cherished.

DECLARATION

With the exception of references to other works which I have duly acknowledged, I hereby declare that this piece is as a result of my own research and that neither in whole nor in part has this work been presented for the award of another degree elsewhere.

…… ……

Peter Ofori-Atta Date

(Student)

…….. ……

Prof. Jacob Songsore Date

(Principal Supervisor)

…….. ……

Dr. Alex Barimah Owusu Date

(Co - Supervisor)

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ABSTRACT

One of the most spectacular changes in Ghana since the 1980's after World Bank and International Monetary Fund programmmes (ERP and SAP) has been the dramatic demographic shift skewed in favour of cities. With fewer than 49 percent of its people being rural, the 2010 population census indicated that the country is currently 50.9 percent urbanized. Accompanying such demographic explosion is the challenge of developing the needed infrastructural resources to deal with urban growth and pursue efficient urban development. The problem is particular worrying in situations as exhibited in Accra where development normally precedes planning, and informality has become another face of our urbanism.

Against this backdrop, systems for identifying streets, buildings, and plots (where available) have simply been unable to keep up with the pace of urbanization. As a result, 60 percent or more of the city have no visible street names or addresses of structures, and the problem is particularly acute within the poorest neighbourhoods. This creates a worrisome predicament for urban services. Makeshift solutions to these problems exist, but the delivery of courier services according to these methods is generally problematic or ineffective. Using mixed method approaches, the study reviews the role of street addressing within the array of courier services and highlights current issues and practices within Ghana and in particular, the intra-city flows within the capital. Though the process of naming and assigning numbers to streets and structures has begun, it has not covered much of the city, leaving courier operators to find innovative ways of operating.

The study further highlights the potentials and challenges confronting the practice and highlights the need for implementing street addressing initiatives. In conclusion, the study optimistically argues that the broad range of experiences resulting from practices elsewhere in similar countries, demonstrates that the district/municipal/metropolitan involvement is one key factor in guaranteeing the system's success and sustainability.

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ABBREVIATIONS AND ACRONYMS

AMA	Accra Metropolitan Assembly
ACP	African Concrete Products
CBD	Central Business District
CODI	Committee on Development Information
DHL	Dalsay, Hillblom and Lynn
DHS	Demographic Health Survey
DPWN	Deutsche Post World Net
EA	Enumeration Areas
ECA	Economic Commission for Africa
ECMT	European Conference of Ministers of Transport
EMS	Expedite Mail Services
GDP	Gross Domestic Product
GIS	Geographic Information System
GOIL	Ghana Oil Company Limited
GPO	General Post Office
GRA	Ghana Revenue Authority
GSS	Ghana Statistical Service
GUMPP	Ghana Urban Management Pilot Project
IT	Information Technology
KPMG	Klynveld Peat Marwick Goerdeler
MDGs	Millennium Development Goals
MLGRD	Ministry of Local Government and Rural Development
MoC	Ministry of Communication
NCCE	National Commission for Civic Education

NRC	National Redemption Council
P & T	Post and Telecommunications
PCSRC	Postal and Courier Services Regulatory Commission
SDG	Sustainable Development Goals
SSNIT	Social Security and National Insurance Trust
SSNIT	Social Security and National Insurance Trust
TCPD	Town and Country Planning Department
TNT	Thomas Nationwide Transport
UK	United Kingdom
UNFPA	United Nations Population Fund
UN-HABITAT	United Nations Human Settlements Programme
UNSD	United Nations Statistics Division
UPS	United Parcel Service
UPU	Universal Postal Union
USITC	United State International Trade Commission
WTO	World Trade Organization

CHAPTER ONE: GENERAL INTRODUCTION

1.1 Introduction

Theoretically, street addressing is an exercise that makes it possible to identify the location of a plot or dwelling on the ground, and can also be seen as a system to locate a building or parcel of land and involves sign installation, numbering main entrance of buildings, mapping and recording these data (Farvacque-Vitkovic *et al*, 2005; MLGRD, 2010). It plays a key supporting role in municipal development (Farvacque-Vitkovic *et al*, 2005), and due to their service, infrastructure and land administration responsibilities, it is commonly found that local authority establishes and maintains address reference data for its area of jurisdiction (Coetzee et al, 2008). Delivery services are among many entities that rely on such base information in their daily services. Emergency services also depend on the address system in providing services to the general public.

For the public, a functioning street address system makes the city more "user-friendly"; it improves the system of street names to enable people to get around the city more easily. It facilitates the delivery of emergency health, fire, and police services. It helps in locating urban facilities. For local governments, it improves urban management (planning, managing public assets e.g. street system, their length, number, and condition) and increases municipal revenue mobilization (see Grant, 2009; Farvacque-Vitkovic *et al*, 2005). Through its surveys and spatial identification of locations, street addressing offers an exceptional opportunity to gather baseline information on a city and enables utility concessionaires to manage their business more effectively. At the national level, dysfunctional physical address system induces loss of revenue due to limited revenue collection strategies (taxation and billing, location based services), discourages foreign direct investments, negatively impacts on regional and global

economy, wastes time and resources, increases transaction costs, upholds poor governance, poor performance of emergency and security services, etc. (UNECA, 2009).

In Ghana, the challenge is compounded by a number of equally important local factors (see Oteng-Ababio et al, 2015; Songsore et al, 2005; 2009; 2014). For example, the assemblies which are constitutionally mandated (Local Government Act 1993: Act 462) to manage spatial development of the cities currently appear deficient in capacity that will guarantee efficient planning of activities in space and effective coordination and control of physical development (Owusu, 2013; Oteng-Ababio, 2011; 2013; 2014; Oteng-Ababio et al, 2015). Hence, prior studies have shown that most assemblies lagged behind in the preparation of appropriate city layouts and even where they are prepared, enforcement has been an area of grave concern. Specifically, the pace of development of properties has outstripped the rate at which assemblies are able to put in place approved layouts to be used as a basis for enforcement.

In addition, until recently, issuing building permits was fraught with long periods of delay, (see Grant, 2009; Gough and Yankson, 2011) which has been the cause of numerous physical developments proceeding without the necessary approval from the assemblies. This problem is also partly caused by the fragmentation of land ownership and an underdeveloped land market. These have consequently resulted in multiple sales of same parcels to different buyers by people purporting to be land-owners (Gough and Yankson, 2011; Songsore, 2003). Based on the constraints outlined above, when most people purchase a parcel of land, for fear that it will be sold out to others, they proceed to start development without recourse to the laid down process of acquiring the necessary development approvals (Tipple, 1987; Oteng-Ababio, 2011).

This development has resulted in a situation where a considerable number of developed properties have no permits as well as addresses, as most of the developments hardly go through

the approval processes of the assemblies. The absence of street names and property numbers coupled with the mounting rate of urban growth, presents a disturbing development trend due to the effect it has on delivery of urban services and virtually compelling most assemblies to operate with a myriad of challenges and difficulties. According to the Ministry of Local Government and Rural Development (MLGRD) Operational Guidelines for Street Naming, some of the physical development challenges of urban areas manifest in the form of:

i. Poor housing and property development due to improper use of land as effective land management principles are not followed;

ii. Inefficient and ineffective disposition of activities in space due to the lack of and/or non-enforcement of zoning requirements;

iii. Traffic congestion due to poor layout of access ways; and

iv. Mounting difficulties associated with provision of emergency services in times of fire, robbery and health emergencies (MLGRD, 2010; p.1).

The Ministry's guidelines further rightly acknowledged that, the absence of an effective street addressing system brings to the fore certain pertinent questions in respect of how city services function. These critical questions include but are not limited to the following:

i. In the absence of an effective identification system, how do city dwellers and visitors find their way in ever-expanding cities especially in Accra, the national capital which is the most urbanised and populated city in the country?

ii. How can commercial entities easily locate their clients and deliver the needed services?

iii. Would services such as ambulances, fire or security be able to operate effectively to safeguard the welfare of the urban population?

iv. How can courier services be managed with ease in locations outside well known public places?

These challenges have received some semblance of government attention in the past initiatives geared towards naming streets and numbering properties in line with modern trends albeit in a piecemeal and incoherent fashion across the various assembles. More importantly, these initiatives normally tend to be carbon copy of what persist in the developed world where the fundamental infrastructural services and planning attributes have been well laid. Without attempting to domesticate these foreign based initiatives in the local settings these initiatives tend to crucify such interventions at birth. These arguments fits perfectly to recent calls to shift the focus of urban theory from North to South and demonstrate how widely used concepts must be interrogated and reviewed as they "travel" from place to place. Consequently, some service providers frustrated by the current bizarre system continue to use their own numbering systems to identify properties to facilitate their operations, thus leading to a multiplicity of numbering systems and the erection of multiple sign posts and boards. This study therefore examines how courier services in Accra navigate these challenges in the pursuit of their operations.

1.2 The Problem Statement

The level of urbanization and economic development of a country are often closely linked (Dwyer, 1975; World Bank, 1990; Cheema, 1993). Nonetheless, urban growth in some cities in most developing economies is associated with citywide challenges particularly in the area of housing and urban services. This has resulted in proliferation of slums, pollution, spiraling land prices and the deterioration of the urban environment (Chakrabarty, 2001). Accra, like most cities in the developing economies has seen considerable growth and economic development in recent years. This manifests conspicuously in the construction of numerous multipurpose towers, high rise apartments and other infrastructure at an alarming rate (Farvacque-Vitkovic *et*

al, 2005). The Trust Towers, Heritage Towers and the very recent Airport City Project are among the few, which readily come to mind (Owusu and Oteng-Ababio, 2015; Afrane 1986; Owusu, 2013).

Accompanying such unprecedented increases in population and development is a rapid consumption of urban resources at an environmentally threatening rate especially in the case of land. Most of the lands of Accra do not belong to the state, they are privately own by clans, families and individuals and held in trust by the respective family heads and traditional authorities. These lands are put to different uses in pursuance of the whims and caprices of the "landowners" and often, disregarding or devoid of approved land use planning.

This tendency has resulted in situations where in most cases, construction sometimes starts without necessary permit (see Owusu, 2013). This has also been attributed in some instances to lengthy processes involved in the acquisition of land and development permits (Songsore, 2003; Grant and Oteng-Ababio, 2012). Mention has also been made of the inability of the regulating agencies to keep up with the rate of physical development (Oteng-Ababio, 2011). The result of this development is the creation of a bizarre and sometimes chaotic city landscape with many sections of uncontrolled physical development. This puts the rate of physical development ahead of planners. Said differently, planners are saddled with land-owners using unplanned and undocumented lands for purposes other than its original plan. In the light of these, urban services provided by both public and private operators tend to face insurmountable problems relating to identification and location of companies, organizations and individuals.

One of the unintended consequences of this haphazard and chaotic development is the difficulty that ensues in locating people and identifying structures within the built environment. In most cases, it is only the old city centre that has some visible addressing system as a means of identification, leaving major spatial extent of the city to other forms of identification. Where

such historical identification exists, gentrification and most probably, the emergence of unapproved structures have blurred such historical system, making them inconsistent with the current realities. It is thus not uncommon that within the city of Accra and its surrounding area today, there are houses and other land properties without addresses, compelling service providers, individual residents and visitors to express their frustration and abhorrence about the current system and to adopt unorthodox methods of identification.

The inconsistency and absence of a standardized system of street and property identification, presents a disturbing development trend. In recent days, many parts of Accra remain under-serviced in respect of urban and emergency services delivery. Locating points of interest and navigating through the city is not only a major challenge but also equally frustrating. The cumulative effect on the city's forward march for example in the provision of municipal services and emergency response services in times of fire, robbery, and accidents could be daunting, though that is not the subject for the current study. The interest of the present study is to examine how courier services operators' function in this urban configuration without a well-functioning identification system such as street names and addresses.

This motivation emanates from prior studies which clearly indicate that the provision of efficient physical addresses provides a means for urbanites to not only navigate the city without relying on memory or extensive local knowledge, but also it is an exercise that makes it possible to easily identify locations. This involves sign installation, numbering main entrance of buildings and mapping and recording these data. It is an exercise, which plays key supporting role in municipal development (Farvacque-Vitkovic *et al*, 2005; Coetzee et al, 2008). More specifically, studies indicate that proper street address system ensures efficient data collection and facilitates updating of urban planning documents, guarantees planning investments, maintains facilities and infrastructure; and finally, mobilizes local resources more effectively (World Bank, 2005; MLGRD, 2010).

1.3 Research Questions

Considering the rapid, unplanned and chaotic or haphazard development in Accra, the questions that come to mind include:

i. What is the current spatial pattern of the operation of courier operators and their activities within Accra?
ii. In the absence of an effective identification system, how do these service operators locate their clients and deliver packages within the city?
iii. How efficient are courier operators in providing their services?
iv. What can be done to improve on the current service delivery?

Effective identification system in this regard refers to the degree that these courier service operators have had the freedom to operate, in other words, navigate the city or the lack of such a system hinders the effective performance of their duties in relation to service delivery. In this regard, the five main roles of efficient identification system namely civic identity, urban information, support to municipal services, tax system and economic development, articulated by the World Bank (2005), and highlighted by MLGRD (2010) are the concerns of this study.

1.4 Objectives

The main objective of the study is to investigate how efficiently courier service operators function within Accra in the face of well-documented challenges.

The more specific objectives are as follows:

i. To investigate the evolution of courier services in Ghana
ii. To establish the spatial extent of service delivery by selected courier operators.
iii. To find out how courier service providers locate clients within the city.

iv. To assess courier service providers' level of efficiency in the pursuit of the function.

v. To provide recommendations for policy considerations in search for efficient courier service operation.

1.5 Propositions

i. Communities with well-labelled street and house numbering systems receive better delivery services.

ii. Operators using proper address system are more likely to be efficient in service delivery than those using unorthodox approaches (i.e. asking anyone available)

1.6 Literature Review

The purpose of this subsection is to throw more light on the key concepts that are used in this thesis. Attempts will be made to analyse the interrelationship between the concepts and how they can be employed in this work to help explain the emerging issues the thesis intend to engage with. The discussion of these concepts will provide a collated and synthesized view regarding their conceptualisation and adoptability for this study.

1.6.1 The Role of Street Addressing Systems in the Development

The literature is replete with plethora of courier services, consisting basically of activities that have to do with the transport and delivery services, whether to domestic or foreign destinations, of letters, parcels and packages, rendered by a courier service provider and using one or more modes of transport, other than by the national postal administration (WTO, 2010). Sometimes referred to as express delivery services, it is commonly defined by key characteristics of its operation that includes transport of parcels - meaning anything from documents to much larger packages — within short, guaranteed times at a reasonable price (ECMT, 1996). The United States International Trade Commission (USITC) also explains

courier services as "delivery at a greater speed with value-added elements such as collection from point of origin, delivery to addressee, tracing and tracking, possibility of changing the destination and addressee in transit, and confirmation of receipt". As for the weight of the parcels carried, it considers that the limit could be set at 30 kg, but some carriers are raising this limit to 70 kg. This increases the range of products that can be carried (ECMT, 1996). The parcel type or kind has been greatly improved mainly due to transport improvement over the past decade. Thus, the main difference between courier service and regular mail services is the reliability, speed and added value services such as tracking.

The industry has the potential of improving the mass movement of goods and services better than it is currently. Such improvement in movement can usher in a well-structured urban movement where congestion and delays can be reduced to increase efficiency within the city. The courier service industry can absorb and regularise urban freight movement to reduce part of the chaos in the city which drains heavy resources. On the global scale, the industry generates more than $80 billion to global GDP with over 2.7 million employment opportunities (Oxford Economics, 2009). Courier services and delivery has become a prominent part of the communication services infrastructure in most emerging cities. Since deregulation and liberalization of most social and specialized services in Ghana, especially after the period of the structural adjustment, the country has witnessed an expansion of the courier service industry.

Preceding this period, most of these services including postal and courier services were solely under the control and monopoly of the state, through state agencies like the Ghana Postal Services. Currently most courier services are carried out by private companies which are both foreign and domestic companies. This development has been fostered by the deregulation of the economic and business environment allowing private companies to play a meaningful role in the sector. An important aspect of this arrangement basically is to allow a new form of

competition from private businesses that will enhance efficiency, effectiveness and innovative capacities of the players within the industry (WTO, 2010).

In a search on the internet, specifically on Ghana Business Directory, we found not less than forty companies in Ghana alone, with most of these companies plying their trade in the nation's capital Accra. In addition, detail information was provided on the specific services, location and addresses (e-mail) of these companies all stationed in Accra. This therefore suggests that this industry has also taken advantage of the ICT air wave to advertise and also promote their businesses. Some of these companies include APK Courier Services Ghana Ltd, Tag-Courier Services Ltd, Rapid Express Courier Services, McDan Shipping Ltd, DHL Ghana Ltd, EMS and FedEx.

The importance of these services for the expansion of other ancillary jobs within Accra cannot be over-emphasized, most especially when transportation and delivery of goods and services are considered as a vital part on which the success of a business is measured. The interesting fact is that most of these services are stationed in Accra, bringing to light the importance of city growth and city infrastructural development to the economy and local government administration.

In addition to the increased use of ICT, by these courier services, Amankwah and Mark-Oliver (2013) state that courier services providers form part of the newly emerging e-commerce services, especially when their activities are increasingly been linked with other Mobile Network Operators, through mobile money and other specialized services in the country. One of the factors, that has favoured the expansion of courier services business in Ghana and in Accra in particular has been the growth of small and medium scale businesses. This is because an efficient delivery system of goods and services constitute a key to the sustenance of these emerging businesses and also the fact that it will be difficult for one business to engage in all

aspects of the business cycle from production to consumption. Amankwah and Oliver (2013) assert that a key to the success of courier services in Accra, will be an enhanced co-ordination and partnership between private businesses both small and medium scale and courier service providers. In addition to this, improvement in current urban infrastructure is also critical as most of these courier services directly depend on good transport infrastructure like roads, better telecommunication services and a good regulatory and business environment, which also promote a sustainable urban growth and development.

1.6.2 Street Addressing Systems and Development in sub-Saharan Africa

The United Nation's Rio plus 20 summit in Brazil in 2012 committed governments to create a set of Sustainable Development Goals (SDG) that would be integrated in the follow-up to the Millennium Development Goals (MDGs) after their 2015 deadlines. This development had twin priorities: the eradication of extreme poverty and the protection of life support systems in an urbanizing world. Indeed, recently, many cities particularly in developing countries have experienced extremely rapid population growth. This growth has created the need for more resources, creating many underserviced neighbourhoods. Poor planning due to uncontrolled sprawl has further compounded the problem, thus virtually crowding out certain neighbourhoods and communities. Baseline data for such urban centres are crucial for meaningful planning. This starts with a proper and functioning identification system.

Essentially, the street identification systems initially used in old neighbourhoods in the city centres have rarely been extended to new emerging areas at the peripheries in particular while the old areas are also being subjected to rapid densification. Consequently, the inadequate identification systems have created a worrisome predicament for urban services. With no system of street address, how does one find one's way around a constantly growing city? How do you dispatch ambulances, firemen, or law enforcement personnel quickly? How do you send mail and messages to private homes? How can municipal services be provided? How do

you pinpoint breakdowns in water, electricity, and telephone systems? How do you set up an efficient tax collection system?

To achieve the United Nation's SDG by 2030, these are pertinent questions that must engage all city authorities. Admittedly, many governments in the early 1990s embraced decentralization as a possible panacea to the negative externalities of rapid urbanization (Word Bank, 2005). However, the abrupt emergence of local government made capacity building of municipal government teams a priority. Municipal governments were unequipped to meet the challenges of such a broad array of problems: substantial new investments and maintenance work were required while few resources were available to do so, owing to almost non-existent tax revenues (Word Bank, 2005). Such challenges brought to the fore the importance of street address system.

The first street addressing initiatives in sub-Saharan Africa were implemented against this backdrop in the early 1990s. At the time, they appeared to be an alternative to costly and ineffective cadastral projects (Word Bank, 2005). Street addressing makes it possible to begin at the beginning: to lay out the city using a simple approach that can be put in place by local governments as they strengthen their urban management expertise in the following four priority areas: collecting information on their cities and facilitating the updating of simplified urban planning documents; planning investments; maintaining facilities and infrastructure; and mobilizing local resources more effectively (Word Bank, 2005).

Street addressing makes it possible to identify the location of roads or a plot or property on the ground, by using a system of maps and signs that give the numbers or names of streets and buildings (Word Bank, 2005). This concept may be extended to urban networks and services: in addition to buildings, other types of urban fixtures, such as public stand-pipes, street-lights, and taxi stands also get addresses. Designating a home address is a big problem indeed, it is

one of the most difficult to resolve in urban life, although it may not seem so. The problem is significant because individuals are as defined by their place of residence as they are by their height or the colour of their hair or eyes (Word Bank, 2005).

The magnitude of the challenge largely explains why it has taken a lot of time to find a solution, to the act of "assigning an address" to locations, and yet, the solution is continually being modified (Word Bank, 2005).Currently, the system chosen most of the time, which defines the address using the street number of the house on the street, and the city, was adopted only after much trial and error, dating back the 18th century Mannheim, Germany, which was considered the prototype of American cities in the 19th century. In fact, the "street-house" idea was not immediately obvious (Word Bank, 2005). Significantly, it is important to state that more than just being a simple street identifying operation, street addressing provides immense opportunity including: creating a map of the city that can be used by different municipal units, conducting a systematic survey that collects a significant amount of information about the city and its population, and setting up a database on the built environment, a rich source of urban information that is too often unavailable.

It is equally important to note that the information gathered will be associated with an address, thus making it easily locatable. This database (which can take the form of a GIS at a later stage) is the major innovation of street addressing initiatives, particularly in countries with rapidly growing urban areas where local authorities have lost control of the urbanization process (Word Bank, 2005). The real advantage lies in the potential of the urban information database, which, in conjunction with a street addressing plan and a street index, can be used for various applications and benefit the population as whole, local governments, and the private sector.

From the foregoing, it can be deduced that street addressing has several and varied objectives to different people at different times. For the public, it makes the city more "user-friendly" by improving the system of street coordinates to enable people to get around the city more easily (Word Bank, 2005). It also facilitates the delivery of emergency health, fire, and police services, and the location of urban infrastructural facilities and services. Within the realm of the local government, it increases municipal revenues and improves urban management through its use. It provides professional tools for planning and managing municipal services by technical departments including the identification of public assets (street system, facilities, their length, number, and condition) and allows a monitoring system to be put in place to assist with urban planning and programming of investments.

It is further expected that the tools so generated can improve local tax collection using information gathered by street addressing initiatives (Word Bank, 2005). It is also possible to locate and compile a register of taxable individuals or businesses and thereby more accurately determine the tax base. On the part of the private sector, it enables utility concessionaires to manage their networks more effectively. In fact, street addressing helps water, electricity, and telecommunications concessionaires to maintain their networks and collect fees.

1.6.3 Street Address System in Ghana

In most cities in developing countries, and particularly in sub-Saharan Africa where development precedes planning (Owusu and Yankson, 2007; Owusu and Oteng-Ababio, 2015), the urbanization process often takes place haphazardly and informally, resulting in unnamed streets and unnumbered houses (Word Bank, 2005). In most communities therefore, moving around the neighbourhood will naturally seem normal as people can "conveniently" find one another. This is true if one assumes that "find" is understood in terms of traditional relationships in the context of extended families, neighbours living in close proximity, family lineage, and long-standing business relationships. The lack of urban street coordinates goes

hand in hand with a certain type and level of social relationship. In a convincing report, World Bank (2005; pp 20) argues that in a traditional milieu, both family and business relationships share the commonality of being "non-urban" in the sense that they perpetuate the social systems that existed before the birth of the city.

As rightly argued by Word Bank (2005), although a city without a system of street coordinates comprises a physical urban space on some level, it cannot transform into a civic community without such a system in place. A citizen is not an anonymous entity lost in the urban jungle and known only by his relatives and co-workers; he has an established identity. He can reach and be reached by associations and government agencies, and he can interface with fellow citizens outside the traditional networks, all by dint of residence in the same city. An individual without an address has no civic identity; a citizen, however, can communicate with fellow citizens. Having an address is essential for this exchange to occur. Street addressing is therefore the foundation on which civic identity can develop, and a prerequisite for the development of civic institutions (Word Bank, 2005).

In areas with limited resources, the implementation of urban management tools based on street addressing systems enables gradual progress and ensures technical expertise at the local level. Prior studies have abundantly noted that in most cases, adopting a gradual approach and pace is a prerequisite for the success of any operation of this nature (Word Bank, 2005). Conversely however, in most developing countries, the policy makers tend to subscribe to sophisticated projects that use state-of-the art methods and the latest software, which are operational only with outside assistance. Such tendencies tend to stall the smooth implementation of any well-intended project. The fact is street addressing needs to be less a technological feat than a tool that local players can use to progressively improve the way municipal business is conducted. Street addressing generally involves three basic dimensions:

i. relations between citizens, which are at the core of any system and can exist only with a street addressing system;

ii. relations between citizens and government authorities, which implies that each individual and economic activity can be located for both fiscal and political purposes;

iii. control of urban space, for which street addressing is the first in a series of applications intended to ensure the gradual development of management tools.

When broadly operationalized, the concept of street addressing may be extended to urban networks and services and thus, in addition to buildings, other types of urban fixtures such as public standpipes, streetlamps, and taxi stations (stands) also get addresses (MLGRD, 2010). A World Bank report revealed that designating a home address is a big problem (World Bank, 2005) and indeed, the process is known to be one of the most difficult to resolve in urban life, although it may not seem so. The problem is significant because individuals are as defined by their place of residence as they are by their height or the colour of their hair or eyes. In that circumstance, one's home address is an integral part of personal identification data and in some instances, it is found on individuals' voter identification and social security cards.

This problem is particularly challenging in developing economies witnessing unplanned urban growth and urbanization thus compounding the city's ability to resolve and therefore taken a lot of time to find a solution, which is continually being modified. Principally, within metropolitan, municipal, district and indeed any urban centre, houses need a distinctive marker that is easily recognizable, but the system chosen most of the time, which defines the address using the street number of the house on the street, and the city, was adopted only after much trial and error (MLGRD, 2010). The report from the World Bank (2005; 44) indicates that the "street-house" idea was not immediately obvious and that it was sometimes supplanted by the idea of a block of houses.

Notwithstanding the challenges embedded in street address system, the process when successfully executed remains more than just a simple street identifying operation, but also provides an opportunity to create a map of the city that can be used by different municipal units, conduct a systematic survey that collects a significant amount of information about the city and its population, and more importantly, set up a database on the built environment, a rich source of urban information that is too often unavailable (World Bank, 2005; MLGRD, 2010). Many a time, information gathered is associated with an address with the build environment of the city, thus making it easily locatable. Ultimately, the database (which can take the form of a GIS at a later stage) becomes the major innovation of street addressing initiatives, particularly in countries with rapidly growing urban areas as exhibited in Accra, where local authorities seem to have currently lost control of the urbanization process. The real advantage lies in the potential of the urban information database, which, in conjunction with a street addressing plan and a street index, can be used for various applications and benefit the population as a whole, local government, and the private sector.

Ghana, like other developing countries has witnessed an increase in its urban population over the last 50 years. With about 23.1 percent of the total population living in urban areas in 1960, by 2000, it had risen to 43.8percent and currently, about 51percent of its 24 million population live in urban areas (Engelman, 2009). One interesting phenomenon of the urbanization process in Ghana has been the skewed distribution of the urban population across its national space. The greater share of the urban population is found in the larger metropolitan areas particularly in Accra and Kumasi with the two having the largest percentage share of the urban population. For instance, Kumasi and Accra metropolis had about 31.35 percentage share of the urban population as of 2000 (GSS, 2005).

Whiles it is acknowledged that, experiences with the urbanization process in most developing countries has proceeded with poor economic growth and a lag in infrastructure (Gantsho,

2008), there is no doubt that it still presents the potential for economic transformation and development. Urban areas serve as engines of economic growth, cultural innovation, social transformation and a hub of industrial agglomeration (MLGRD, GUMPP, 2010). In recent times there have been concerted efforts from policy makers, urban and regional planners and politicians, that increasing and improving urban infrastructure is the surest means of enhancing the economic viability of cities, especially in the developing countries.

In this regard, there have been significant strides by successive governments to enhance infrastructural development and access in most urban communities, as evident by the increase in access to telephone, power and water to most communities in Accra. For instance as of 2003 electricity coverage was just 44percent of the national space but by 2008, it was increased to 58 percent (GSS, 2008). This however does not discount the latent structural constraints and inefficiencies in the provision of vital social services, of which considerable attention and policy direction should be geared towards as a way of addressing these bottlenecks.

Urban infrastructure and service is critical to sustainable urban development, and one of such services is courier service provision. This is so because a key to the success of most businesses within the urban business environment has to do with how goods and products are distributed or delivered to consumers in various parts of the city. The critical nature of this service coupled with its impact on ancillary jobs within the urban business environment has led to an increase in outlets of courier service providers in the country and in Accra in particular. The preceding sections of this essay will discuss some of the prospects and challenges of courier services in Accra and then followed by the institutional framework under which courier service providers operate in Ghana.

1.6.3.1 Institutional arrangement of courier service in Ghana.

Largely, the Ministry of Communication is mandated by law to oversee the operations and activities of courier services in the country. It also provides the policies and the regulatory framework that governs the operations of courier services in the country. With regard to the subvented agency, it is directly under the purview of the Postal and Courier Services Regulatory Commission (PCSRC) which "has the mandate to regulate and license the operation of the postal and courier services in Ghana and has been pursuing its functions with diligence" (MoC, 2011). One of the important aims or functions of the Ministry of Communication over the years have been the development of an effective and competitive courier services environment, and as intimated by the former Minister of Communications, Hon. Haruna Iddrisu, there has been increased collaboration between State Agencies, such as the Customs, Excise and Preventive Service, Ghana Airports Company Limited, licensed courier service operators and PCSRC to manage and track illegal operators and bring them under the regulatory framework. He asserted that, the last quarter of 2010 and early 2011, the Commission licensed twenty-one postal/ courier service operators, bringing the total number of operators licensed at sixty eight as at June, 2011 (Iddrisu, 2011). Another area worth noting is the transformation of the sector in the era of ICT under the e-Ghana Project of which a bill has been sent to Parliament by the PCSRC.

1.6.4 Urban Configuration Patterns and Service Delivery in Accra

Accra is the national capital and considered as a prosperous economic and commercial hub of Ghana. Its location as the national capital was pioneered by the colonial British authorities after the administrative capital was moved from Cape Coast to Accra in 1877 and the period marked the most significant factor in the growth of the city. According to Dickson (1971, p. 261) following the relocation, considerable investment was channeled into the town's infrastructure,

including major transportation arteries - road, rail and sea –which supported its growth. As a result, the volume of trade and commerce stepped up as well.

The drivers of the Accra growth process, which originated in the 19th century, have remained intact since. Consequently, the city has attracted migrants not only from other regions of the country but beyond (Otiso and Owusu, 2008; Grant, 2009; Owusu, 2013). As a result the process of urbanization and urban growth has been stronger here than any locality in Ghana. Currently, the Greater Accra Region is the most densely populated region and most urbanized with a density of approximately 1,236 persons per square kilometer compared to a national average of 103 persons (GSS, 2013). In addition, the city attracts a daily daytime population of over 3.5 million (Owusu, 2008).

This high concentration of population has resulted in a spillover of its population to the surrounding districts and the rapid conversion of several settlements into one big contiguous urban concentration referred to as the Greater Accra Metropolitan Area (GAMA). Table 1.1 shows the population of the various metropolitan areas and municipalities of GAMA from 1970-2010. The population of the metropolitan area grew from over 827,983 in 1970 to over 1.3 million in 1984, and then over 2.5 million in 2000 reaching over 3.6 million in 2010. Thus, between 1984 and 2010, a period of 26 years, the population of GAMA nearly tripled.

In principle, one of the distinctive features of street addressing is its propensity to create a common platform on which the concepts of urban space and civic community/identity can come together. It is a prerequisite for undertaking a new approach that will create a lasting connection between the city and its residents. A city is, first and foremost, a means for coexistence, exchange, communication, and integration. Street addressing is just one of the many requirements that will help a city achieve such social integration.

Table 1.1: Population of GAMA (1970-2010)

District	Population & Growth Rate						
	1970		1984		2000		2010
Accra Metropolis	636,667	3.0	969,195	3.3	1,658,937	1.1	1,848,614
Ledzokuku-Krowor	-	-	-	-	-	-	227,932
Ga District*	66,336	4.9	132,786	8.9	550,468	5.0	908,053
Tema Metropolis	102,431	4.4	190,917	2.8	298,432	3.0	402,637
AshaimanMunicip.	22,549	5.8	50,918	6.8	150,312	2.4	190,972
Adenta Municipal	-	-	-	-	-	-	78,215
Total	827,983	3.5	1,343,816	3.9	2,501,196	3.8	3,656,423

*Includes Ga East, Ga West and Ga South Municipalities
Source: Derived from Population Census reports 1970, 1984, 2000 and 2010.

Another important feature of Accra urbanization is the fact that instead of expanded city boundaries to accommodate an ever-expanding metropolis, the practice has been the continuous fragmentation and division of area. The city of Accra population figures therefore overlook the reality of the fragmentation of the metropolis and consequently the undercount of its true population size. In all probability, the population of Accra metropolis is likely to grow slower or even decline as the administrative area delineated as the official metropolis becomes smaller due to continuous fragmentation into new local government areas.

This is against the backdrop of increasing land and housing prices and the process of gentrification already underway in many parts of the city – which continuously push the population to the surrounding municipalities. Under these conditions, census data are likely to give a false impression of a city undergoing depopulation and therefore affect planning and services delivery. In all probabilities, the growth of GAMA is unlikely to slow down both in terms of population and areal expansion. Figure 1.1 indicates that by 2025 the built up area of

the metropolitan area will stretch over 50kms to the west, east and the north. In other words, the built up area by 2025 and beyond will encompass districts in the Central Region (Kasoa and Awutu Municipalities); Eastern Region (Akwampim South/Nsawam-Adoagyiri and Aburi Municipalities) and the Dodowa/Dangme East Districts in the Greater Accra Region.

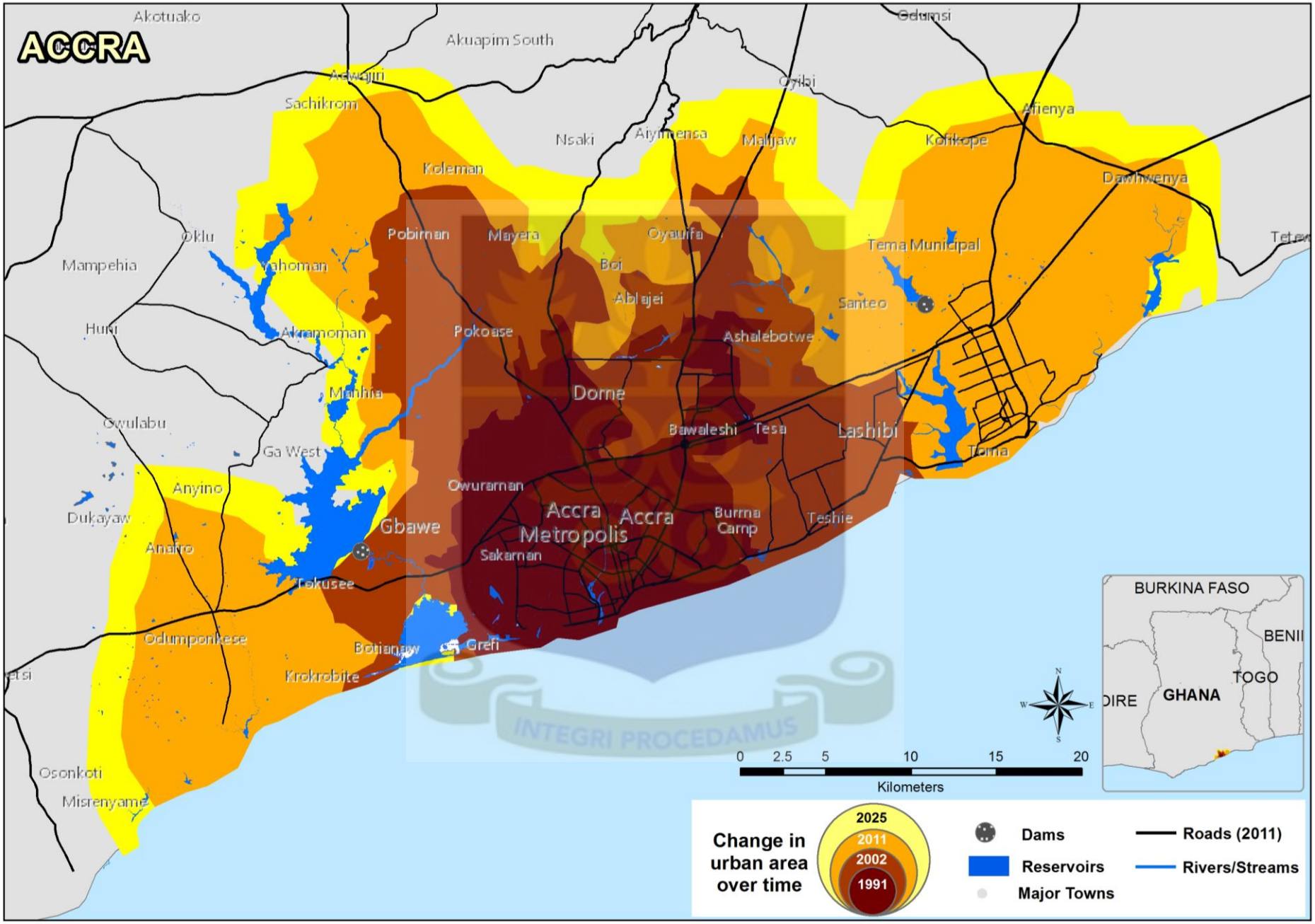


Figure 1.1: Accra: Change in urban area (1992-2025)
Source: Jacobsen et al. (2013)

This sprawl is likely to pose severe challenge to the quest for sustainable urban development especially in the area of service delivery. This is to be expected when cities operate in systematic fashion and therefore the collapse of any sub-system will have repercussions in the whole system. Thus, in a city which attracts for example a million people daily (Owusu, 2008) and with about 70 percent people lacking access to basic sanitation (Oteng-Ababio et al, 2015), the provision of vital and life sustaining services and infrastructure, that protect health and improve productivity, are more likely to be compromised. With nearly two thirds of the city population residing in densely populated informal settlements (UN-Habitat, 2011) devoid of efficient identification systems, the provision of efficient courier services will needlessly be compromised.

1.7 Conceptual Framework

Cities are very dynamic urban centres. Their functions and roles keep changing in intensity and are affected by a wide variety of factors in tandem with their spatial dynamics, governance structure and economic configurations (see Malera et al, 2013). The liveability and efficient functioning of every city is contingent on how the various sub-systems change with the growth dynamics. This calls for careful planning and religious adherence to implementation plans and monitoring schedules, failure of which consigns and indeed can induce a chain of negative consequences (Figure 1.2). As a result, the existing urban scene of Accra is the outcome of years of interactions within and from outside that has shaped and reshaped it. The present setting exhibits a mixed character with many parts of the city displaying uncontrolled physical development and inadequate institutional effort to arrest the situation.

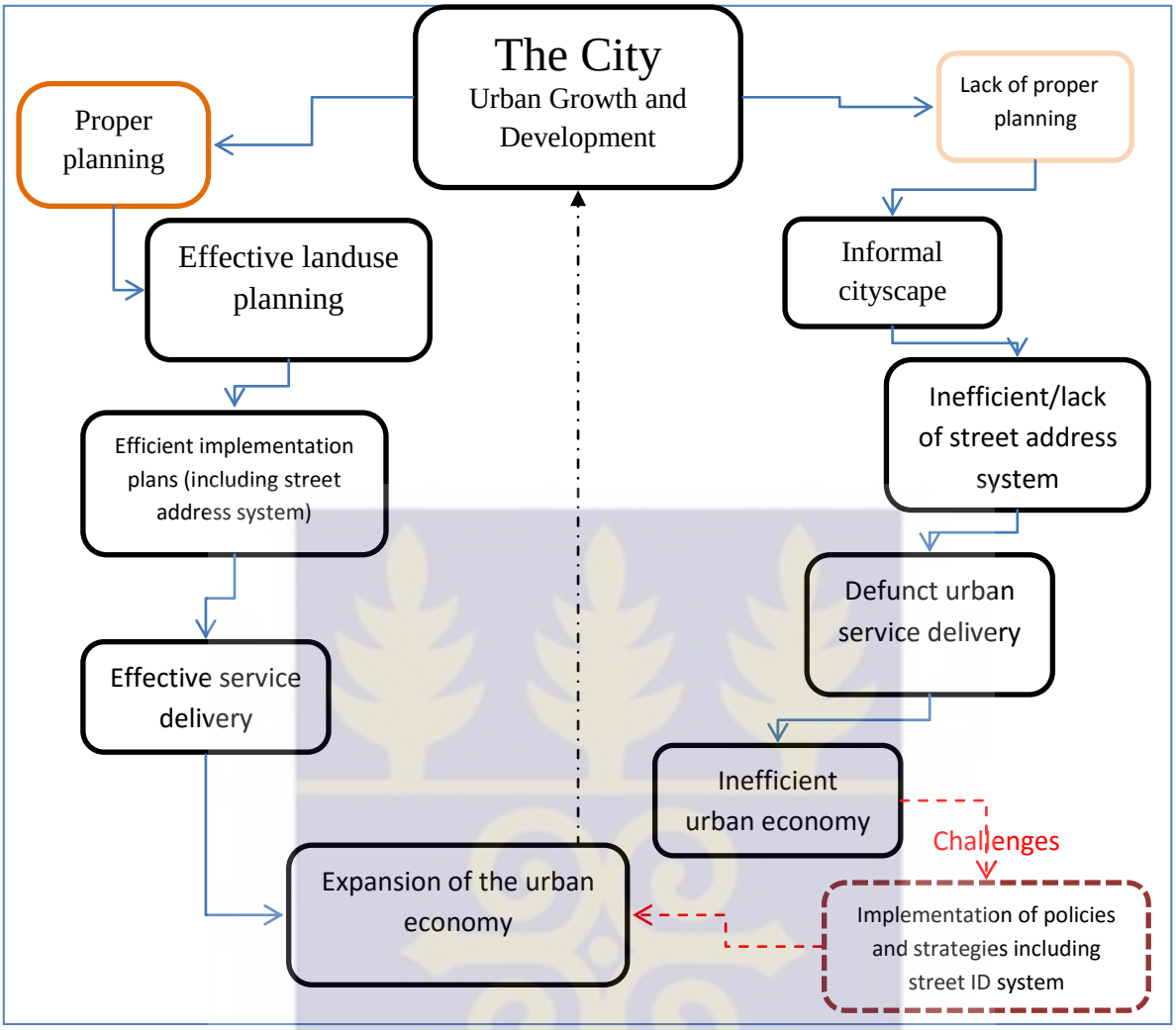


Figure 1.2: Courier Service pathways in energizing urban economy
Author's construct

For the desired outcome (efficient movement of goods by courier operators within Accra) to be achieved, stakeholders including courier operators, local government agencies, transport and urban planners, consumers and others need to play their respective role. Through the provision and implementation of sound policies including urban development plans including street and house address system, coupled with adequate technologies employed by operators, the spatial interactions and movement in the city can be transformed. Well labeled street, structures and their arrangement along with appropriate transport network and its functioning can bring about positive urban change. When this is properly done the outcome is likely to be a more user-friendly urban geographical space, which will improve courier delivery and urban mobility in

general. Put differently properly managed city systems including instituting proper address system will not only ensure efficient courier services delivery but more importantly improve the city's internally generated revenue which is the life blood for any city's development. Failure to achieve this would continue to deepen the current urban problems with its inefficient, high cost and limited scope of urban courier services. It will then legitimate growing inequality and marginality within the urban space where majority of the urban dwellers will be 'officially' cut off from the municipal services. This has been the situation and has been the major concern for the problems confronting many city authorities in developing countries. This has to change to ensure inclusivity within the urban space to generate development for all, a panacea for sustainable urban development.

1.8 Research Design and Methodology

A variety of techniques were employed to achieve the objectives of this research. Figure 1.3 below presents the research design employed in this study. The main source of data used was generated from fieldwork. With the use of interviews in the form of questionnaires, both qualitative and quantitative data were teased out. Added to this was the use of direct observation. This was used to get first-hand information and details into the daily operations of the courier operators for better understanding. The main respondents in this research were the courier service operators and residents from selected communities. Being the key stakeholders involved in the courier delivery services industry, operators were studied and surveyed. This was done by the use of interviews (questionnaires), observations and interpreting some secondary data received from some operators. Residents of sampled communities were also surveyed for their perception of courier operators in the country. There was the use of experiment and simulation in meeting some of the set objects.

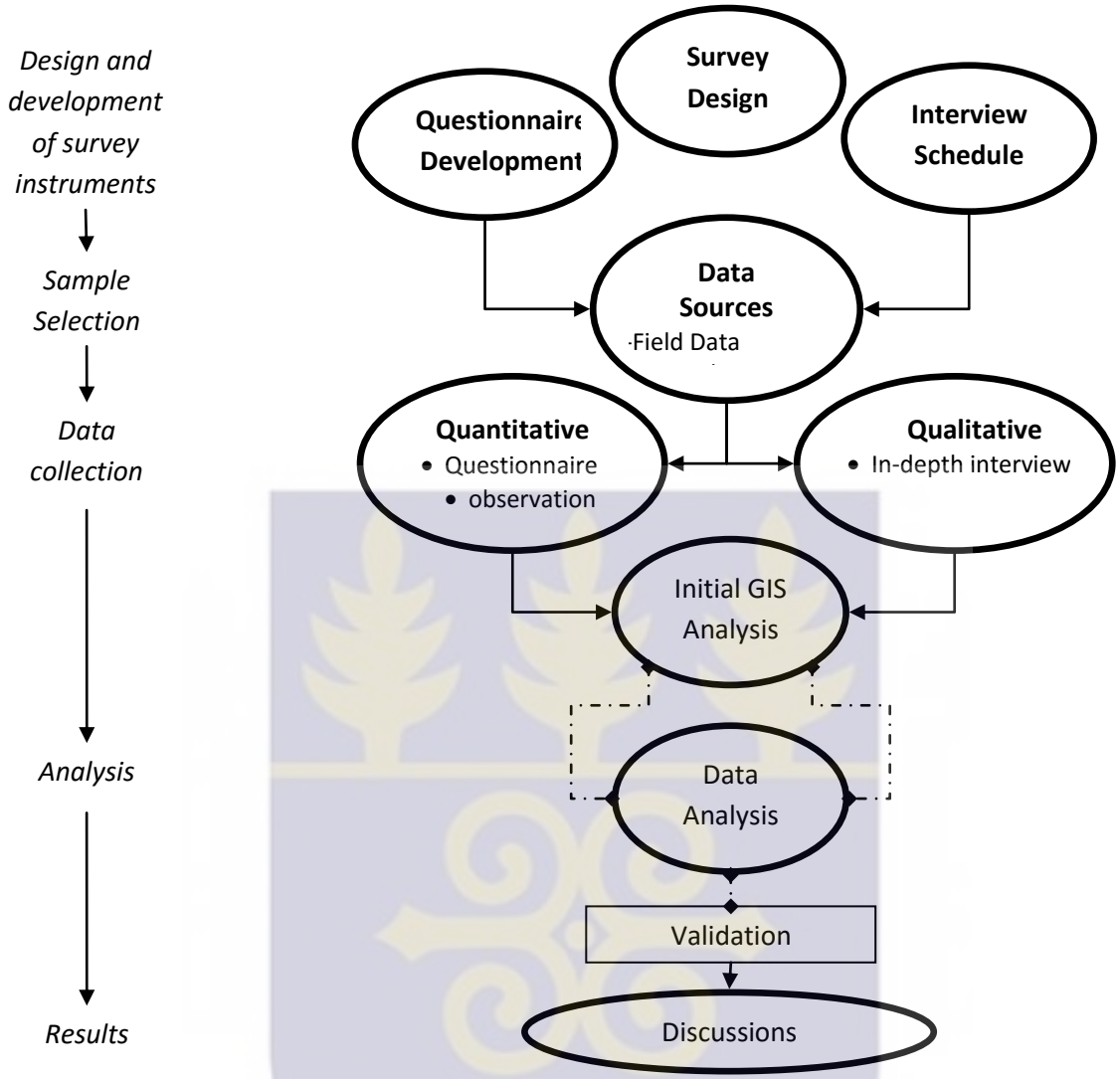


Figure 1.3: Research Design

1.8.1 Participants

This research was carried out within the Accra Metropolitan Assembly, which is in the Greater Accra region. Under this administration system, the metropolitan assembly is divided into eleven sub-metros namely Ablekuma Central, Ablekuma North, Ablekuma South, Ashiedu Keteke, Ayawaso Central, Ayawaso East, Ayawaso West, La, Okai Koi North, Okai Koi South And Osu Klottey as at June 2012. AMA is surrounded by Ledzokuku-Krowor and Adenta Municipal Assemblies to the East, Ga East, Ga West Municipality to the North, Ga South to

the West and the Sea to the South. The area is about 173 km^2 and has an estimated population of more than 2.5 million people (2010 Census, GSS).

The two main target populations were operators of courier services within the city and some clients and potential clients within selected localities. For the selection of localities, where questionnaires were administered, a multistage sampling method was used considering a number of issues. Among these were land-use classification, income based classification and spatial structure of the locality.

At the first stage, the study area was broadly divided under the land use classification. The area was categorized into residential and non-residential land-use areas. The residential areas were further segmented into sections using GSS residential classification using income, while the non-residential areas reclassified into commercial, industrial and administrative areas. This led to localities ordered into high-income, middle-income and low-income neighbourhoods. From these three residential types, one locality was selected each taking into account the spatial layout and configuration of the localities. The arrangement and types of road network, buildings and structure were also considered.

It was realised that the configuration of building and road network tend to relate positively with residential income classification; thus high-income neighbourhoods exhibits well-marked property boundaries, solid sandcrete structures with good surface roads. Roads are well defined with gutters along it. Airport residential area is one of such localities and was selected.

Plate 1.1 shows an aerial view of a well-planned community (like Airport Residential Area) where there are good layout network of streets with often a single structure on a well demarcated parcel of land. Also termed "Be aware of Dogs Community" (Oteng-Ababio, 2011) these high-income areas are easily traceable as these areas are sparsely populated, even though signs of "containalisation" are emerging in some of these neighbourhood.

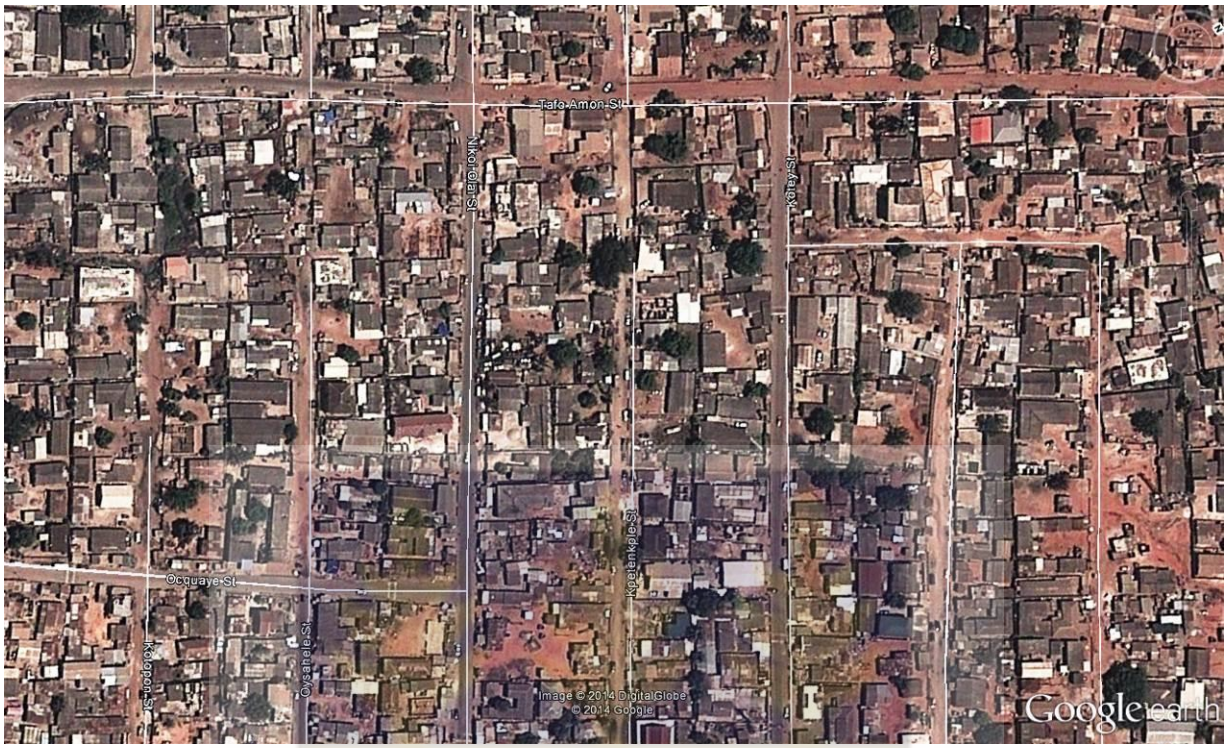
Plate 1.1: A satellite image of the high-income locality- Airport Residential

Source: Google Earth, 2014

For the middle-income community, Kaneshie was selected. There are some signs that show characteristics of some elements of the high-income neighbourhoods. They were planned neighbourhoods, which have seen some high levels of in-filling and crowding. Structures of sharp contrast exist side by side in such neighbourhoods.

Here, parcel boundary exist but not visible. Multiple structures occupy a parcel of land and some roads disappear at sections of the street network (see Plate 1.2). It is important to indicate that though the area was originally gridded with properly demarcated lanes and drains, this architecture are being blurred with the proliferation of kiosks and containers at vantage points within the city. These emerging containers and kiosks are not only densifying the urban morphology, but complicating one's ability to locate individuals and places in the absence of a proper address system within such locality.

Plate 1.2: A satellite image of the middle-income area – Kaneshie



Source: Google Earth, 2014

The third sampling locality was, Labadi, from the low-income neighbourhoods. The low-income neighbourhoods often have few major roads that are in good conditions passing through it. Streets connecting to these roads are often unpaved and without gutters. Structures of different materials occupy any available space. Streets are narrow with vehicles and pedestrians competing for space. Plate 1.3 shows an aerial view of a low-income neighbourhood like Labadi. Parcel boundaries do not exist. Structures of all kinds occupy the entire land in no particular order. Here, there are a few clearly defined streets. Streets either disappear at sections into people's homes or are reduced to foot path and vehicular movement within the community is virtually treacherous. There are few major roads running through the community and the outer boundary. These are one of the most difficult areas to operate especially for the courier operators due to the high population density (i.e. 1,650 per Km^2) in the face of improper address system, coupled with the cannibalisation of every available space by the teeming migrants to the city for greener pastures or for non-existent white collar jobs.

Plate 1.3: A satellite image of the low-income area - Labadi

Source: Google Earth, 2014

For the purpose of this study, one non-residential area was also sampled. The Ministries area and its surroundings which constitute a major portion of the Central Business District (CBD) was selected. This area houses majority of the state ministries, departments and agencies and other government administrative offices. Headquarters of some commercial institutions such as the banks and also recreational facilities are sited here. It forms part of the central business district of the city. Among other reasons is that there is a perceived high level of interaction with courier services. It is considered one of the major areas where they depend on services of the courier operators.

These localities (see Figure 1.4) were selected based on the reasons stated above to examine the operator's interactions among different urban areas and also to solicit the perception of residents (potential clients) of the services of courier operators. As seen in Table 1.2, the proportion of sample size chosen was made to reflect the population of the localities with

higher numbers selected form highly and densely populated locaties (Kaneshie and Labadi). Household heads, office administrators and shop owners responded to the research instruments.

Table 1.2: List of selected localities

No.	Name	Income class	Sample
i	Airport Residential Area	High-Income Area	25
ii	Kaneshie	Middle-Income Area	53
iii	Labadi	Low-Income Area	53
iv	CBD	Commercial Area	25

Table 1.3: List of selected courier service delivery operators

No	Local Operators	International Operator
i	EMS Courier	DHL
ii	McDan Courier. Ltd	FEDEX
iii	Quick X Courier	UPS
iv	Kingdom Concept Courier	TNT
v	APK Couriers Ghana Ltd	Sky Dragon Courier
vi	Eagle Courier	
vii	Racinglink Expert Courier	
viii	Skynet Courier	

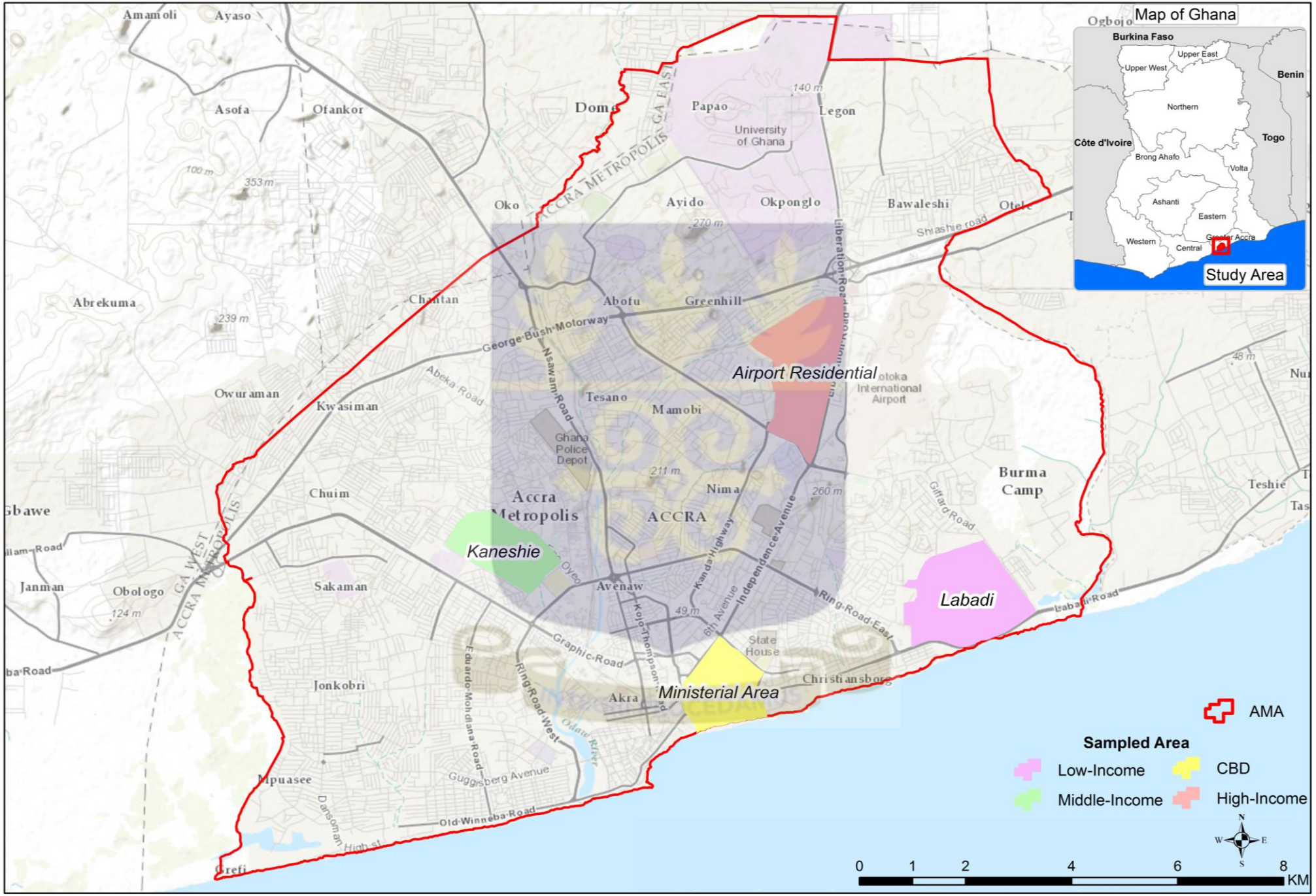


Figure 1.4: Map showing the sampling localities

Source: Fieldwork, 2014

As of the time of this work, there were 56 licensed operators in good standing according to the Postal and Courier Services Regulatory Commission (PCSRC) of Ghana. These were registered operators whose core and primary function was freight and courier services. Others that were engaged in other activities did not form part of the sampling size. Out of this group, the sample was reached using a multistage sampling technique. Operators were initially grouped into two categories based on ownership: international and local operators. From these groups, operators working within the city of Accra were considered. From the international, 5 operators were selected (see Table 1.3) based on their dominance in the local market i.e. investment and market size. For the other group, 8 were selected (see Table 1.3 and Figure 1.5). A simple random selection was made from those that are located and operating within the city. They were randomly selected because their operational mode and sizes were similar.

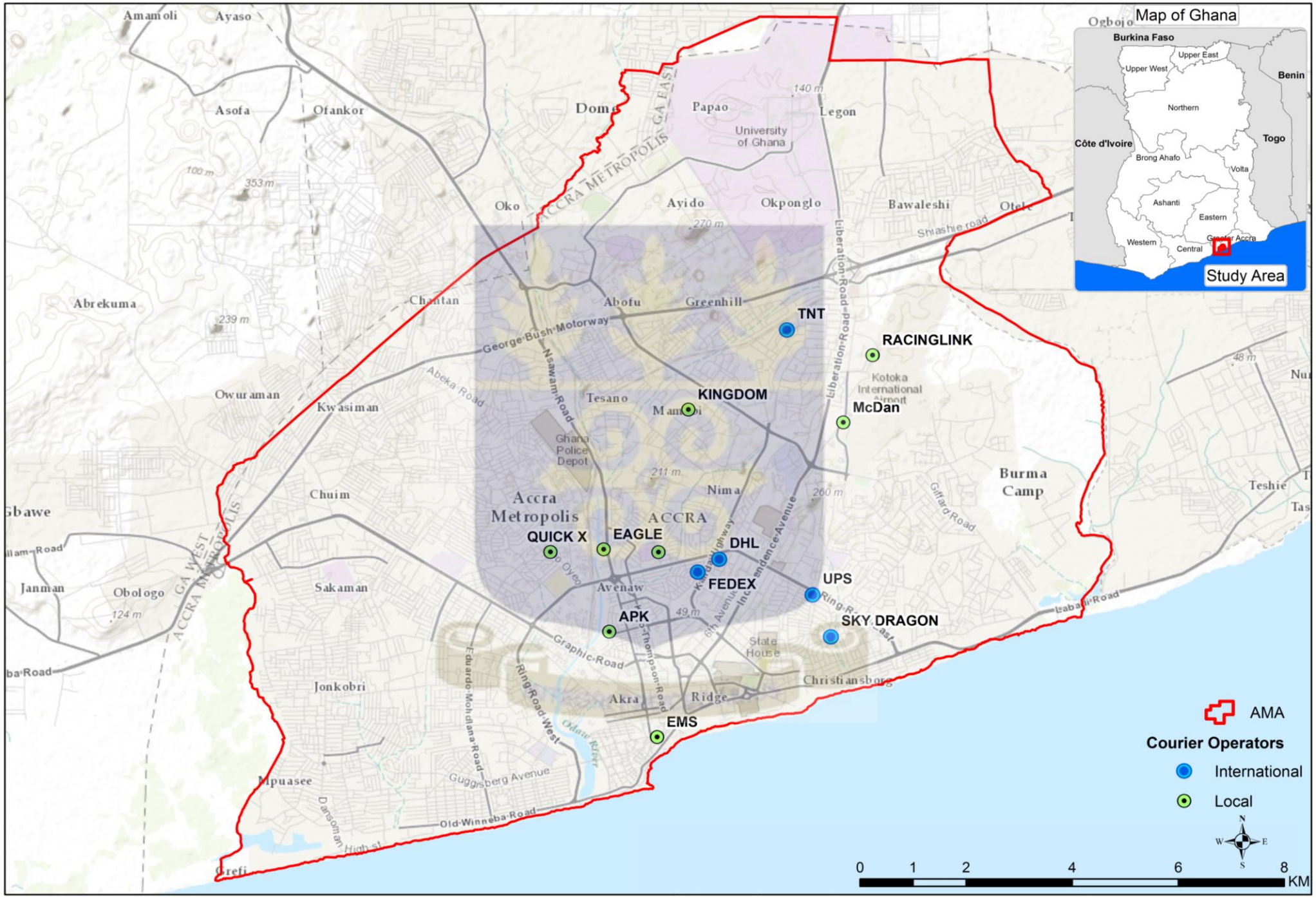


Figure 1.5: Map showing the sampling courier operators

Source: Fieldwork, 2014

1.8.2 Instruments

A number of research instruments were used for this research. These include questionnaires, interviews guides, observations checklist, documents, and a handheld GPS. Mixtures of structured and unstructured questionnaires were used. These instruments were used among the potential clients. Household heads and administrators were targeted for their views and perception of the courier operators. This was to elicit response regarding different issues of their interactions with and perception of the courier service. There was the need to guide respondents regarding the level of their interactions with the courier operators. They were unrestricted in expressing their views and perceptions on the operations, quality and other aspects of their service.

The use of interviews were employed in gathering data from the operators. Through the use of structured and unstructured interviews, data were collected about operators, their operations and interaction with clients. Operational supervisors and dispatch officers were the target persons for the interviews for the courier operators. They provided data on activities ranging from how clients locate them to how they place orders to when they are able to end the delivery processes. The supervisors were responsible for planning, sorting and routing of items and packages. When this was ready for delivery, the dispatch or drivers were the responsible persons who conveyed the packages from the operators premise to the delivery points or clients. In all instances, these two individuals were interviewed separately. They responded to different aspects of their duties. The supervisors also provided supporting documents which gave additional information about deliveries.

With a keen interest on spatial variations within their activities, locations of interest were noted and geocoded with the aid of geographic information systems. Some of the locations provided were geocoded with the GPS device. Geocoded data enable the use of GIS as complementary methodology to come out with thematic maps. It helped to determine spatial distribution of

operators sampled and spatial distribution of services areas. A detailed spatial analysis was established with the help of GIS. It was also with the aid of GIS that simulations and experiments to find out delivery times and distances covered were done. This was to determine delivery efficiency by the operators.

Visits to their offices also provided useful information about their pre-delivery activities. Such observations revealed how preparation and planning of packages are done including sorting, route planning and delivery. These observations were easy to make among the local operators compared to the foreign operators. This was because the pre-delivery processing takes place in one room and is not complex as that of foreign operators where different officers check and recheck items at different locations within the same office complex. Field researchers were permitted to accompany dispatch officers in vans in some instances but not on motors for safety concerns. Documents such as monthly delivery reports, operational guidelines and fleet lists from some of the operators were useful in gathering data that contributed to the overall information attained for this research.

1.8.3 Data Analysis

With data needed for this research collected, subsequent analysis was guided by the main research objectives. Research questions which were raised earlier also guided in teasing out patterns, comparison and other issues. Descriptive statistical analyses such as the use of frequency distribution like pie and bar charts were used on the responses to obtain a clear understanding of the operations of the courier services in AMA. The key informant interviews were also transcribed and thematically analysed and used to complement and support the quantitative data.

1.8.4 Limitations

In the quest to use appropriate research methods to investigate the way delivery service operators function within the city of Accra, a combination of techniques were used. There were

other methods which could have provided a better understanding of the activities of courier service such as computerised delivery history details. This could have enrich this study perform a package analysis. These were not within reach of this research due to some limitations. From fieldwork, it was apparent that as helpful as participants were, there was some information which was held back as trade secrets that could have enhanced this work. Actual operational figures were not available from some participants. This leads to the use of projected figures based on figures gathered within the periods of observation for this research. Other spatial techniques tied to spatial data aforementioned was not considered due to their unavailability. This led to the use of only a few spatial analysis results with the help of the ArcGIS software. However, notwithstanding these challenges, the available techniques used here were sufficient in achieving the set objectives for this research.

1.9 Structure of the Thesis

This chapter one has introduced key concerns of this research. It has explained the importance of courier services in the development process. It details, through a review of different sets of literature, the challenges related to infrastructure provision and its impact on the provision of courier services. It presents the different debates and the conceptual framework for the study. The study reviews courier service and justifies the selection of the fieldwork and different collection and analysis methods. The fieldwork which took place in four socio-economic zones in Accra, low-income area (Labadi), middle-income area (Kaneshie), high-income area (Airport Residential Area) and a commercial area (Ministries). Semi-structured interviews with 14 selected courier companies offered a clearer picture on the operations of courier services in the metropolis.

Chapter two examines the history of courier delivery service through various stages of its development. It discusses the informal postal service and its development in the world and

particularly in Ghana though the different scenes of our history. Chapter three describes spatial analysis of courier service operators. Although the activities of courier operator cannot be examined without the inter-city or inter-regional flows, this study pays particular attention to intra-city flows activities of courier delivery service with the city of Accra. The macro-level focuses on the description and analysis of both international and local courier operators in the country and the micro-level provides nuanced information on the fourteen selected companies operation in the city of Accra. Chapter four, which interrogates the efficiency of courier services operation in Accra is divided into four sub-sets that present the results from the factors ensuring efficient courier service delivery, the profitability of the services (service efficiency), the major challenges faced by operators and finally the comparison of delivery times in selected areas.

Chapter five triangulates and discusses the findings, presents their implications for urban and regional development and more importantly, the development of Accra. It finally suggests an approach for an improved infrastructure provision to ensure efficient service delivery to reap the full benefits of the services. Chapter six concludes the thesis through answering the five research objectives and stating three findings. The last part of the conclusion suggests recommendations and areas for future research. It concludes by a more personal appreciation of the research exposing some elements of reflection for the future of urban infrastructure provision. Following this overview chapter, the next chapter presents the history of courier delivery service in Ghana.

CHAPTER TWO: HISTORY OF COURIER DELIVERY SERVICES IN GHANA

2.1. Introduction

As already mentioned, the importance of communication and messaging in management of any development agenda and a country cannot be overemphasized. Among others, it enhances the smooth working of the economy. It also promotes cooperation and enhances industrial peace. The role of the postal sub-sector within the communication industry in Ghana with emphasis on Ghana Post Company Limited is therefore significant. The foregoing coupled with the impact of globalization, liberalization of economies and improvement in technology has shaped the communication industry over the years dating back to pre-colonial era. Consequently, this chapter examines all these important features of development. The chapter begins with the pre-colonial era, when man used talking drums to communicate among themselves.

2.2 An Overview of Ancient Postal and Courier Services - The Talking Drums

Long before the advent of courier services, indigenous communities particularly, in Africa mustered the act of providing similar services through the use of talking drums. Ong (1977) acknowledge the historical importance of talking drums. He stated emphatically that African talking drums or slit-gongs have been of considerable interest to anthropologists, linguists, and others today because these instruments Africans had in the past produced probably the most highly developed acoustic speech surrogates known around the world (Ong, 1977). They pointed out that in the past, various cultures developed acoustic surrogates or sound substitutes for ordinary spoken words, using gongs or drums or whistles or bells or other instruments, as well as special sounds produced by the human voice itself, to communicate verbalized messages, often at a distance greater than that which articulate speech itself can cover.

An acoustic speech surrogate, studies have shown, is a code, that is to say, a system of sounds which essentially have no similarity to the sounds of the speech they represent: the Morse code used on an old-style telegraph is a standard example here, for the clicking buzz of a telegraph does not sound at all like speech and is not intended to. Similarly, "Dawuro" in the Akan parlance comes with a different sound and meaning to those who comprehend and appreciated its unique sound. Hence, an African drum language is not such an abstract signalling code, but rather a way of reproducing, in a specially styled form, the sounds of the words of a given spoken language. Only recently have knowledgeable descriptions of various drum languages been worked out. As for most parts of history, our knowledge of most such languages remains somewhat defective (Ong, 1977).

Though this system was widely used historically, it is important to add that to arrive at an understanding of how the drums operated, one must first have a command in depth of the normal spoken language which the drums adapt, and then discover the principles governing the adaptation. That is to say, to understand the traditional drum talk, one must know the spoken traditional language being used - for one drummer will drum his native Fante, another Ewe, another Dagomba - and, in addition, one must discover the way in which the language is adapted or styled for the drums. A drum language is not understood ipso facto when one knows the spoken language it reproduces: drum language has to be specially learned even when the drums speak one's own mother tongue and this appeared to be one of the greatest challenges that confronted the system in the past.

Suffice to add however that not all drums that transmit information used to be talking drums. Some studies have indicated that some of the drum rhythms were used for signalling narcotic ceremonies, others for manioc beer ceremonies, still others for deaths and attacks by enemies, while the rhythms being differentiated much as those of a dirge and of wedding music might be in Western culture. It must be added that many cultures, including that of the present-day

United States, use drum beats or gong beats or church bells in this way. In spite of the limitations identified, traditional drums (gong gong) imitate words by imitating their tones. Hence, for these talking drums a tonal language was and remains indispensible. A tonal language uses pitch to distinguish words. Many African languages are tonal unlike English language.

What African talking drums do is to reproduce the tones of words, not the vowel or consonant sounds as such. The African wooden slit-gong is typically, though not always, a section of tree trunk, and thus a cylinder, some two to six feet or so in length, hollowed out with a slit an inch or so in width running almost its entire length. The hollowing can be done, laboriously, through the slit, but more commonly the log is opened at the ends, which are then plugged up again afterwards. These traditional gong gongs here play important communication roles in the past and continue today albeit with changing roles due to imported technology. The point is, rather, the traditional drums were used as an expression of the verbalization patterns of oral cultures and were strikingly characteristic of drum language as such, and played a very important role in the genesis of the courier services.

2.3 The Genesis of Courier Services and Colonial Ghana

From the forgoing, it can be concluded that, the post and courier service today is as old as man. Several oral traditions and narratives documented indicate that ancient people conveyed messages (communication) through three main conduits: by (a) the beat of drums (b) blowing of horns and (c) through messenger. In the course of time, Pigeons were even trained to carry written messages.

Prior studies indicate that the present day post and courier service originated from the United Kingdom and was the brainchild of one Rowland Hill, an English School Teacher who coined the idea in 1839. According to history, Rolland Hill after years of conceptualization, suggested

to the then British Government the need to establish a common independent place where letters from individuals and corporate bodies could be "posted" for onward dispatch and "delivery" on arrival. This was after Rolland Hill had in January 1837 published his pamphlet Post Office Reform: Its Importance and Practicability, which successfully detailed the need for a common postal service.

He had no doubt or illusion about possible challenges or the sources of trouble including the complexity of the charges and the possibility of generating mixture of paid and unpaid letters. In his estimation, a plausible solution pertained to the institution of a prepayment scheme. He opined that to ensure sustainability of the system the charge should be low and uniform and he further recommended a fee of 1^{d} to one ounce in weight. However, Hill failed to initially make or mention the method of prepayment. Nonetheless, Hill proposed that a uniform charge should be collected on all letters meant for posting.

In 1840, the British Parliament gave him, Rowland Hill, the go ahead to find a suitable location for the posting and delivery of letters. It is further reported that Rolland Hill, unable to find any suitable place, used his own house as the first Post Office in United Kingdom. In the same year 1840, he introduced the first "Postage Stamps" known as the "Penny Post" or the "Penny Black". Before Rowland Hill in 1840, the British initiated and implemented a system of informal courier service which was highly complex and very expensive. Letters for postal and delivery were charged by distance and the number of sheets of paper they contained. Normally, the charge was paid by the recipient due to the quantum of the payment expected to be made. As a result people often 'cross-wrote' their letters to save money. Later, the state took over the work of the Post, and thereafter, Hill suggested the use of stamped covers. Then, taking into consideration the possible difficulties with people unable to write, he suggested the use of "a bit of paper just large enough to bear the stamp, and covered at the back with a glutinous wash." This was eventually to become the Penny Black, the world's first adhesive postage

stamp. The reforms introduced by Rowland Hill in the Victorian period changed the face of the British postal service forever. He opened up what had been a complex and expensive system to a much wider public. This coincided with an increase in literacy and together with this, resulted in greatly increased communication.

His postal reform was an immediate success. The number of chargeable letters in 1839 had been only about 76 million. By 1850, this had increased to almost 350 million and continued to rise dramatically. Adhesive postage stamps were slowly introduced throughout the world. With the change to charging by weight envelopes became normal for the first time. With such a success, the postal and eventually courier services were to assume a wider geographical application and significance.

2.4 The Postal Service in the Gold Coast

The "Postal Services Revolution" started by Rowland Hill in the United Kingdom in the late 1830s began in the Gold Coast, now Ghana in 1854. Suffice to state that during the colonial era, there was a single Postal System in the British West Africa (Gold Coast, Nigeria, Sierra Leone and Gambia), aligned to the British Postal Service. Around the end of 1854, the then Governor of the Gold Coast, Major Stephen Mills made a representation through the Secretary of State to the Postmaster General of U.K. asking for separate Postal Service for the Gold Coast. After a successful representation, the request was approved and in 1860 the legislative Council of the Gold Coast enacted legislation for the prepayment of postage on certain classes of letters passing through the post.

The first post office was opened in Cape Coast, the then national capital, in 1873 with one Rowland Cole, a Sierra Leonean as the first Postmaster. The year also saw the printing the first Gold Coast stamps in the denomination I pence, 4 pence and 6 pence. In 1874, the General Post Office (GPO) was moved from Cape Coast to Accra. In 1879, the Gold Coast became a

member of the Universal Postal Union, an umbrella organization of all Postal Organisations with its headquarters at Berne, Switzerland. On l6th March 1881, the first Telegraph line between Cape Coast and Elmina was installed. It was later extended to the Christiansburg Castle, Accra. On 24th May 1887, the first Inland Telegrams were accepted at 1^{d} for the first 20 words and 3d for each additional 5 words. In 1888, Private Letter Boxes were first installed in Accra. In 1890, the first manual Telephone Exchange was inaugurated in Accra Central.

The development of the postal industry witnessed a further boom when private letterboxes were introduced in Accra in 1888 and a postal school was opened in Accra in 1921 to provide training in all aspects of postal duties including morse and teleprinter. After World War II, the Postal Services became a department of the Civil Service and came to be known as the Postal and Telecommunication (P & T) Department, with the addition of Telephone Service. Table 2.1 presents the chronology of the development of postal services in Ghana.

Table 2.1: Chronology of the development of postal services in Ghana

YEAR	ACTIVITY
1854	Major Stephen Mills requested for separate Postal Service for the Gold Coast
1873	First Post Office, opened at Cape Coast, Rolland Cole (a Sierra Leonean) first Postmaster
1874	The G.P.O was moved from Cape Coast to Accra
1875	The first Gold Coast Stamps were issued in 1^d, 4^d and 6^d denominations
1881	The first Telegraph line between Cape Coast and Elmina was installed.
1887	The first inland Telegrams at 1^d for the first 20 words and 3^d for each additional 5 words
1888	Private Letter Boxes were first installed in Accra
1890	The first manual Telephone Exchange was inaugurated in Accra Central
1906	"Special Mail Service" was introduced
1912	The first Postal School opened in James Town (Accra)
1913	The second school was established at Cape Coast
1915	Completion of the G. P. O. and two schools were merged.
1946	G.P.O added telephone services to become Postal and Telecommunication (P & T) Department
1959	G.P.O. introduced 1/-, 5/-, 10/-, 20/-, 40/-, 60/-, 80/- and 100/- shilling denominations
1961	Third school was established in Kumasi
1965	Division of P&T into Postal Services and Telecomms Services
1966	The two organisations were brought together again under one Director
1974	The P&T Department was incorporated vide NRC D311 of 1975
1982	Relocation of school from G.P.O. to the Telecoms Engineer School, Tesano Accra
1982	The name Postal School was changed to P&T Training Centre
1984	The Kumasi Postal School was closed down
1990	Expedited Mail Service (EMS), a courier service was introduced
1991	The Kumasi school was re-opened.
1991	Postage Stamps were printed in Ghana for the first time
1992	New ₵100.00 and ₵10,000 Postal Orders were introduced

Source: Unpublished data derived from Ghana Post headquarter, Accra, 2015

2.5 From General Post Office to Ghana Post

The Ghana Post Company Limited (formerly Ghana Postal Services Corporation) was separated from the then P & T Corporation in 1995. It was established by an "Act of Parliament (Act 505 of 1995) to operate as a separate entity to provide postal and allied services. From the statue that sets its up, the objective of Ghana Post is to provide postal services by operating a postal system in Ghana in accordance with the Laws and International Obligations of Ghana. In pursuance of this objective, the company shall have power to provide the following services.

i. Postal Services;

ii. Courier Service;

iii. Service for which money may be remitted by means of money order, postal order or otherwise;

iv. Agency Services on behalf of the Government or any other body:

v. Such other services as may conveniently be provided on the part of Post Offices that are open to the public (whether for the transaction of postal business or otherwise). The Company also has the power to appoint agents for the purpose of giving effect to any or all of the functions of Ghana Post.

In December 1993, the Telecommunication Division of the P & T Corporation was incorporated under the Company's Code (by Act. 401 of Parliament) to become the Ghana Telecommunication Company Limited. The Postal Services Corporation was established in August 1995 with the enactment of Act 505 to operate as a separate and independent entity to provide postal and allied services. Finally, in June 1999, the corporation was converted into a private Limited Liability Company, Ghana Post Company Limited, still with Ghana

government as the sole shareholder. There are 298 post offices and 703 postal agencies in the country. The next section discusses the role of Ghana Post in the development agenda of the nation.

2.6 Role of Ghana Post in national development

The grim image of the Postal Service as a social service provider with its attendant ineffectiveness and inefficiencies has changed over time. Stakeholders and users of the post are beginning to be aware of the new image and the role it is now playing in national development as far as communication is concerned. The deteriorating quality of the postal service and the lack of customer satisfaction contributed immensely to the bad image. To date, however, the picture has improved tremendously with the establishment of market oriented courier companies.

2.6.1 Economic

Economic contributions can be seen in areas of Business and Trade, Employment, Support for Government Orgainisations and Revenue for Government.

2.6.1.1 Business and Trade

The Expedited Mail Services (EMS), which commenced in 1990 to supplement the universal service, delivers timely and important business mails for firms especially the financial institutions. New businesses are currently investing in Ghana due partly to the company's ability to deliver business mails on time.

2.6.1.2 Employment

The postal business is labour intensive and has to some extent eased the unemployment pressure on government.

2.6.1.3 Revenue for Government

In addition to the use of its counters in collecting custom duties on imported items through the post, Ghana Post pays dividend to the government annually.

2.6.2 Political

Conveyance of Election Materials

Political role of the Post Office is significant and covers civic education. The post office is a communication agency and has helped to facilitate movement of political materials during and after elections.

2.6.3 Social

The post office has contributed immensely to the social development of Ghana in the following areas:

2.6.3.1 Improvement in Literacy Rates

Literacy rate increased from 40% to 50% of the population between 1984 and 2000 (Source: Statistical Service Report). The post played a role in this increase. It offers children the opportunity to write letters. Also, the post office has offered a medium for school children to correspond with selected penpals world-wide.

2.6.3.2 Symbol of Development

Post offices in communities, towns, villages etc. are one of the yardsticks of the level of the development of these areas.

2.6.3.3 Tourism Promotion

The Post has served as a medium of exchange of letters between penfriends, which eventually results in visits to Ghana by these friends. It, therefore, has the potential of improving tourism.

2.6.3.4 Portrayal of Culture

Philately plays an additional role of portraying the Ghanaian culture. Various issues of commemorative stamps with flora and fauna and traditional themes have attracted patronage of tourists from USA, UK and Japan etc. This demonstrates the extent to which Ghana's culture is being sold abroad.

2.7 The Origin of Expedited Mail Service (EMS) in Ghana

The EMS was commissioned for business in April 1990 with the aim of providing the quickest postal service by physical means, or to provide a fast Courier Service to Customers with great dispatch. It is linked to over one hundred (100) countries worldwide and over one hundred and fifty Post Offices within Ghana. This gives it the nationwide coverage advantage which other express delivery services do not have. Though DHL was the first to operate as an express delivery service in 1984 in Ghana, it does not cover as much as Ghana Post's EMS does. Virtually all countries can be reached through the EMS. The EMS basically provides two types of service, that is "on Demand" and "Contract" Services.

On demand items are accepted from the Public without any formal contractual agreement. The items are, however, presented at the counter whiles the contract items are accepted on the basis of a contract between the sender and EMS Service. The service is of immense benefit to firms that import documents and packets regularly. The EMS also offers other services such as pick-up collection and delivery service and special distribution on contract basis. All these services are offered at competitive rates. Above all the services are tailored to the need of customers.

2.8 The Challenges facing Ghana Post: The E-revolution

Ghana Post like many other state subvented companies remains saddled with myriad of challenges, ranging from finances to human resources. However, the single most important "demon" that has virtually spelt the death of the service is the introduction of the cell phones

and the Internet. Indeed, this is making the Postal Service very irrelevant. Research (see Adu-Gyamfi, 2007) has revealed that since the e-mail debuted, the art of letter writing particularly among the youth has virtually died. “No one seems to have time to write letters by hand, any more” (Adu-Gyamfi, 2007). The research warns against the over-reliance on technology. Touting virtues of the postal services and cautioning against some of the ills associated with the emerging ICT revolution, Adu-Gyamfi, (2007:2) writes;

nevertheless, the drawback is that you can ultimately put your message immortalized on someone's hard drive in Timbuktu. The person can choose to forward it all around the world, instantaneously, without any guilt or hesitation.

Against this backdrop, the role of the Postal Service in Ghana is diminishing, but that doesn't mean that we should neglect its role in the society and in the communication equilibrium. Human beings tend to have a very short memory. But, who doesn't remember the days when all phone calls were made from the post offices around the country? What about telex and cable grams? The Post Office was once a place one could open a savings account. Some also sold general items, in some rare cases medicinal drugs.

Without doubt, no one is expecting any modern day Post office to function as an eighteen century one. Nonetheless, neglecting it totally perhaps may cost the nation more, down the road of its development trajectories. Indeed, the process and structure is a national monument and forms very integral part of the national communication equation. The challenge is daunting, as perhaps and it is more than likely that the postal service top management and officials themselves do not even use their service, whiles most policy planners, makers and implementers do not have to mail any letter. It is equally more than certain that most of these officials have their fax machines and expensive laptops with wireless internet hooked-up. And,

with their cell phones they can text their friends and families all over the world, it is as sure as the day follows the night that they would rather talk about IT than P&T.

2.9 Summary

The foregoing chapter deliberated on the informal postal service and key historical development issues of postal services. A discussion on means of communication especially with talking drums and other instruments were made here. Some of the roles and development of these instruments were highlighted in this chapter. This examined the African traditional way of communicating among them. This was followed by the gradual transition into other forms of messaging where even birds were used before the formal introduction of messengers. Realizing the need to move items from place to place, Rowland Hill, an English teacher, sought permission from the British to begin the genesis of formal postal service in 1839. Over the years, the service grew from one challenge after another, with best of solutions available at that time. Also discussed in this chapter was the development of postal service in Ghana through the colonial period till late 20th Century when the age of express mail service arrived in this country.

CHAPTER THREE: SPATIAL ANALYSIS OF FORMAL COURIER SERVICE OPERATORS IN ACCRA

3.1 Introduction

The previous chapter examined the key concepts and principles in courier service operations. Conscious efforts were made to interrogate the benefits to be expected with proper address systems. In this chapter, the geographies of courier service is empirically examined and discussed. The location of operators and the extent of their service are examined. In examining these, issues regarding the dynamics of urban service of courier delivery are highlighted. How the socio-economic configuration of the city influence the way these operators work is also examined.

Over the years since the capital of the nation was moved to Accra, it has played a pivotal role in national development. Being the capital, and the seat of government, Accra has a far reaching effect on all parts of the country than its geographical area suggest. All parts of the country are affected by social and economic activities of the capital. Being the national gateway to the rest of the world, all contact with the rest of the world is through Accra. Therefore, its prime role in the movement of goods and services throughout the country cannot to over emphasized. All courier companies in the country have their headquarters in Accra and as a result, Accra serves as the hub of the service. This coupled with the fact that all other activities have their head office in Accra means it is a generation point from which activities flow to other parts of the country. This is noted in the location choice of courier companies. All courier companies sampled for this study have offices in Accra. However, they are not available in all ten regions of the country as seen in Table 3.1.

Table 3.1: Distribution of sampled courier operators' location in Ghana

Name	EMS	DHL	UPS	FEDEX	APK	TNT	TOTAL
Ashanti Region	15	1	1	1	1	1	**20**
Brong Ahafo Region	9			1	1		**11**
Central Region	12			1			**13**
Eastern Region	20			1			**21**
Greater Accra Region	37	3	3	4	1	3	**51**
Northern Region	5	1		1	1		**8**
Upper East Region	3			1			**4**
Upper West Region	4			1	1		**6**
Volta Region	7			3			**10**
Western Region	13	1	1	2		1	**18**

Source: Fieldwork, 2015

Figure 3.1 below shows the concentration of courier offices in the country. The level of interaction and flow of items is synonymous with the office location. EMS and Fedex are the only courier companies with offices in all the ten regions. EMS also has the largest number of offices in the country totalling 125 offices where their service is available. Of these locations, 29 of them are parcel receiving, delivery and acceptance locations. Though the private companies outnumber the state company, there are not operating everywhere in the country. They are attracted to the heavily vibrant economic centres such as Tema, Kumasi and Takoradi.

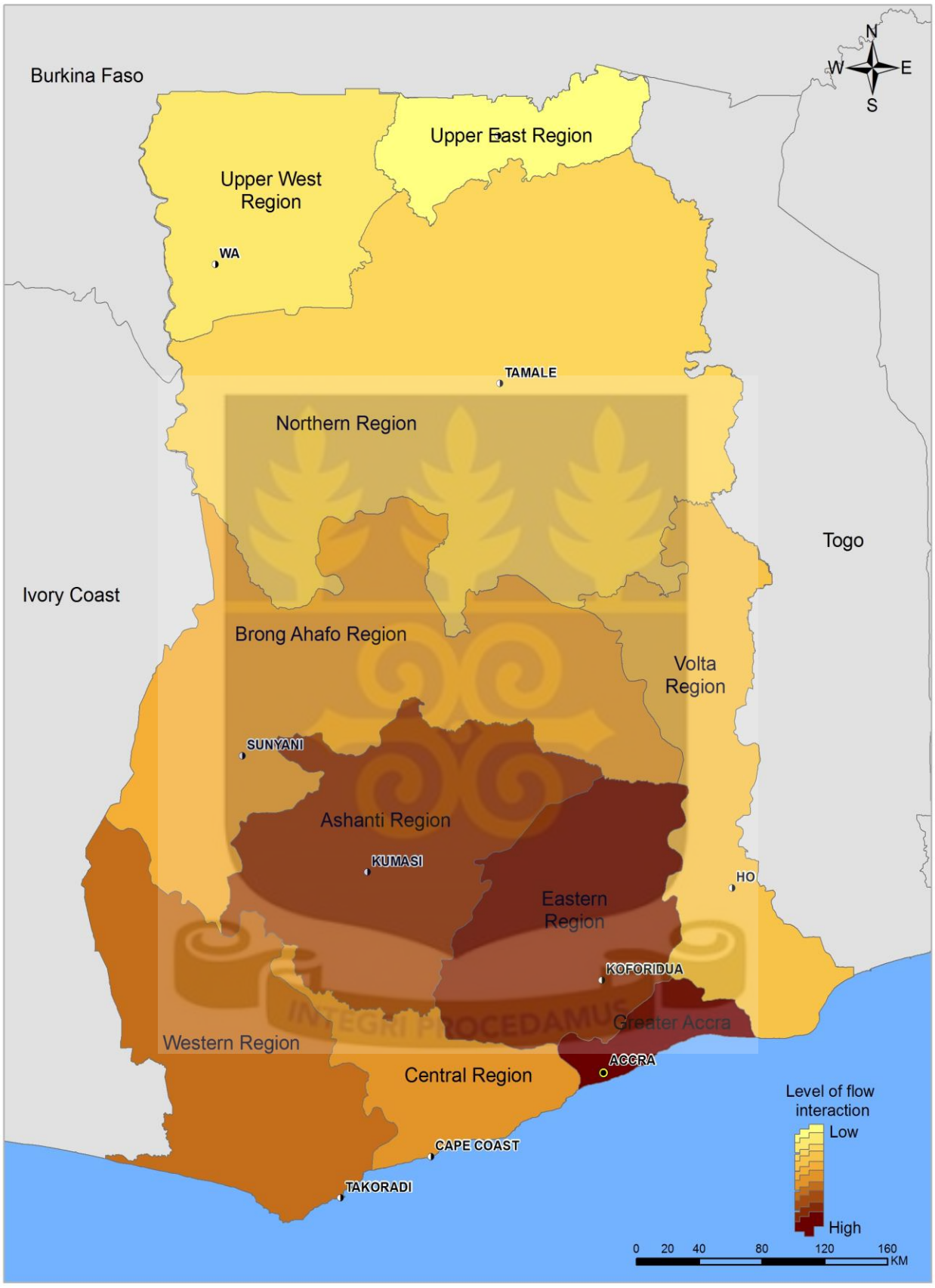


Figure 3.1: Concentration of Courier Locations in Ghana
Source: Fieldwork, 2014

3.2 Analysis of International and Local Operators

3.2.1 International Operators

Increasing global trade and interaction among nations and corporate entities has fashioned a heightened need for effective communication at international, regional, national, as well as local levels of trade and business relations. The evolution and improvement of transport modes in recent times, has functioned to crystallize the courier industry into an effective time responsive method of moving freight and other goods with courier services now an integral and inevitable option for organizations in meeting communication and business needs.

The background to the evolution and flourishing of numerous courier service delivery enterprises in Ghana and the international arena over the years becomes a basic way of appreciating the dynamics and growth trends of the industry in the development process of economies globally. Though all these companies have local points of origin, some have flourished to international frontiers reaching many nations whiles some are merely localized or operates either on a regional scale. Ghana like many other African nations has been a destination of some of these major players in the courier industry which have extended business fortunes to the African continent. The key players in the industry have very different origins and very different backgrounds, carrying with them the legacies of both their founders and the eras within which they were founded (Stinchcome, 1965) and exhibiting as a consequence, distinctive corporate cultures that have significantly shaped their strategic thinking and focus over the years. In Ghana, among these key courier service providers of international origin are DHL, UPS, TNT and Skydragon among others.

The courier service delivery industry is not a recent outfit but dates back to ancient times when courier services among countries were largely governed by bilateral postal agreements. Williamson (1930) opined that to the end of the Middle Ages, the courier service industry was

dominated by two systems working side by side – the private system maintained for their own business correspondence by merchants and the state service of couriers maintained for diplomatic correspondence. Stinchcome, (1965), observed that, the histories of the major players in this industry over the decades demonstrate intensifying competition in the international and local arena, not only among themselves but also between themselves and government-owned postal and telecommunications organizations. The increasing globalization and interaction among nations and businesses beyond the 19th century generated the need for order and simplification in communication in the rapidly developing trade and commercial sectors of the world.

The search for an international postal system led the Swiss Government to convene an international conference in Berne on 15th September, 1874 which was attended by representatives from 22 nations leading to the signing of the treaty of Berne. On 9 October of the same year (a day now celebrated around the world as World Post Day), for the establishment of the General Postal Union (Williamson, 1930). The Union's membership grew so quickly over the next three years that its name was changed in 1878 to the Universal Postal Union. With universality as its main goal at commencement, the UPU, operated on the confines of the provision of its first Article which provided that all countries who are parties to the Union form single territory in that for postal purposes, international frontiers should utterly become no barrier to transit as all member countries operated with uniform rates and transit charges. Express/Expedited Mail Service (EMS) evolved as the brand name of the Universal Postal Union which eventually embraced the whole world handling over forty thousand million letters across the world yearly (Williamson, 1930). In Ghana the EMS was launched on 10th April, 1990 under the auspices of Ghana Post to offer both internal and international mail services in the country.

Advancement and increasing private involvement in the courier services industry in the face of globalization witnessed the evolution of many outstanding private courier service providers besides the UPS in the international front. TNT Express which originated in Australia back in the 1940s, when Ken Thomas set up his own transport business with just a single truck is now a renowned global courier service provider operating in over 200 countries across the world. With links to a domestic airline (Ansett) and with no small intimation of useful political relations, it grew to dominate the small Australian domestic market (Taylor and Thrift, 1986).The business went global in the 1970s and 1980s gaining solid footholds in new markets by purchasing transportation companies in Europe, North America and Brazil in the overnight and express delivery industry with about 65,000 employees worldwide. Stellar Group Ltd, a legendary logistics and supply chain service provider in West Africa, operates the TNT Express franchise throughout Ghana, offering logistics, hospitality, travel, ship broking and retail services.

DHL International, another leading express international courier service provider globally, was founded in 1969 in San Francisco with its brand name coined from the initial letters of its three founders, Dalsay Andrian, Hillblom Larry and Lynn Robert. The three corporate founders (Dalsay, Hillblom and Lynn) set up in the business of flying ahead with documents relating to sea shipments, and arriving before marine vessels, they could complete customs clearance and other related paperwork and save clients two or three days on berth-time and ship turnaround (Stinchcome 1965). Following a significant expansion of its frontiers to several countries, Deutsche Post World Net (DPWN) acquired 25 per cent shares in DHL in 1998 and later made a total acquisition of DHL in January, 2002.

The company's worldwide trademark was adopted by DPWN integrating under one umbrella Deutsche Post, and Danzans to produce three major corporate categories of DHL Express, DHL Global Forwarding, Freight and DHL Supply Chain. With a workforce of about 285,000

employees, DHL's international network links more than 220 countries and territories offering fast and reliable services to customers in over 120,000 destinations globally. In the wave of the global coverage ambition of the company, DHL's operations were broadened to Africa, with Ghana as one of its solid foundations in the continent. From a modest beginning in 1984 in Ghana, DHL Ghana Ltd with its Head Office in Accra, is currently the market leader in Ghana and the zonal outlet linking 5 other West African countries; Benin, Burkina Faso, Liberia, Niger and Togo to its global network.

Following the private sector dominance of the international courier service industry in the early 1990's, the United Parcel Service (UPS) emerged in 1907 and was originally known as the American Messenger Company founded by Jim Casey in Seattle with its headquarters in Atlanta. The company was renamed UPS in 1919. As a key player in international courier service industry, UPS is well networked and resourced with approximately 100,000 vehicles, 400,000 staff, 3000 worldwide operating facilities and 9 million customers.

With a global outlook and ambition for expansion, UPS announced its plans to purchase TNT Express in 2012 which however fell through. UPS has several subsidiary business networks including UPS Capital which offers financial services; UPS Freight offering overnight less-than-truckload freight delivery; and the UPS Store which is a retail franchisor. With its wide international stretch, the company remains one of the proactive overseas courier services deliverer in Africa, with Antrak Express Ltd being the sole authorized service contractor for UPS in Ghana in the delivery of freight.

Despite the dominance of the international courier industry by major players owing their origin to the 18th and 19th centuries, new companies with recent origin have equally emerged to partake in the courier business generating a stern competition in recent times. Of such recent origin is Sky Dragon which was set up in 2004 under the approval of the China's Ministry of

Transportation & Civil Aviation Administration. Headquartered in Shenzhen, Sky Dragon operates a well networked global logistics circulation with major branches in Guangzhou, Hong Kong, Dubai, Nairobi, and Accra with long term strategic partnership with many key players in the Logistics industry including UPS, TNT among others. With over a global coverage of over 100 countries, Sky Dragon operates in international forwarding of imports and exports for ocean freight and air freight. Its services includes: canvassing; booking; storage; transshipment; full container and consolidation; freighting clearing; customs clearance; inspection declaration; courier service; short-distance traffic service and consultation.

3.2.2 Local Operators

In Ghana, the courier industry has grown in popularity in recent times. Even though the sector is largely populated by companies of foreign origin, several other local players have sprang up in the industry with most concentrating on serving the local market whiles others have broadened their scope to the international front often through strategic business partnerships. McDan Shipping Company, established in 1999 and headquartered in Accra, Ghana is an instrumental courier service provider in the West African sub-Region in the area of freight forwarding with branches in Tema and Takoradi, Sierra Leone and Liberia. Through business partnership with the Universal Freight Organization, McDan operates in over 2400 major air and sea ports worldwide. Specializing in Project Cargo, International Sea and Air Freighting, Cargo Handling, Warehousing, Custom Brokerage, and Haulage, McDan is the first freight forwarding company to obtain the Air Carrier Licence in handling chartered cargo flights in Ghana and has the GSA for Global Aviation in West Africa.

SkyNet Express Ltd is one of the local courier service providers in Ghana which was incorporated in 2007 as a limited liability company. At the core of its service line includes parcel delivery and general cargo haulage to all parts of the country. With almost a decade in

the courier service industry, Skynet Express has a solid clientele base including GOIL, Novotel, KPMG, Golden Tulip, Gold Fields among others. The company is duly registered with statutory agencies including, Postal and Courier Services Regulatory Commission of Ghana, the Social Security and National Insurance Trust (SSNIT) and Ghana Revenue Authority (GRA).

Like SkyNet Express, APK Couriers Ghana Ltd is a wholly owned Ghanaian Limited Liability Company that was established in 2010 as a result of the merger of BKB Couriers Ltd the Parent company of BKB Couriers (GH) Ltd and APK Couriers Worldwide GMBH of Germany and it's agent in the UK LHR Global Logistics of UK. APK Courier is made up of almost the entire staff of BKB Couriers (GH) which due to the merger officially ceased to operate in Ghana from July 2010. APK Couriers Ghana Ltd offered varied services including national overnight delivery, international air and sea freight, export packing as well as international door to door freights. With a wide service network in Ghana, APK Couriers Ltd delivers courier services to several organizations and clients including AngloGold Ashanti Ltd, Taysec Construction Ltd, Broll Ghana Ltd, Noguchi Memorial Institute, Ayum Forest Products Ltd among others.

Eagle Express Limited, another Ghanaian courier service company, was incorporated in 2008 as a courier and logistics services provider, licensed by the Postal and Courier Services Regulatory Commission (PCSRC) to provide courier services within Ghana. It is headquartered in Accra and has a strong a strong network of operations which covers all ten (10) regions of Ghana.

3.3 Spatial Distribution of Service Operators in Ghana

The section outlines the nature of courier service delivery in Ghana, taking into account the coverage areas of courier service companies, the methods of locating clients in the delivery

process, the logistics and resources used in delivery as well as the major impediments that are encountered.

3.3.1. Exploring the Socio-Economic and Physical Geographies of Accra

Accra, the capital city of Ghana, is the economic and administrative hub of the Greater Accra region. With a history of its formation preceding pre-colonial times, Accra was not a prominent trading hub like Ada and Prampram, until the colonial period when it was designated the capital of the Gold Coast in 1877. Once only a small coastal fishing settlement of Ga's revolving around the confines of the major forts of the colonial period, Accra has been transformed into the largest and most populous city in Ghana, characterized by fragmented economic and residential geographies. The evolution and distribution of settlements and economic activities in the city in recent times presents a blend of colonial architectural establishments and modern skyscrapers and gated apartment blocks. Despite the complex mix of residential and economic establishments in Accra, a distinctive analysis of the geographic distribution of settlements and commercial units is worth providing for a better understanding of the internal socioeconomic structure of the city.

The distribution of formal and informal settlements in Accra is a pivotal aspect dictating as well as orienting the location of most commercial establishments especially service providers including courier service enterprises. According to Grant (2009), the internal spatial organization of Accra, in the pre-colonial era, encompassed walled coastal fishing villages east of the Korle Lagoon which expanded to include James Town and Usher Town (Present-day Accra) after the influx of colonial administrators and merchants. In the colonial era, the spatial pattern of Accra was characterized by an European commercial and residential area (Victoriaborg) on one hand and a native residential and commercial (market) area on the other. However, these segregations became transient, with the boundaries between the two enclaves

totally blurring in the early twentieth century following the increased population pressure in the city after independence.

Grant (2009) further notes that, "Central Accra" which corresponds to the old native Accra, has metamorphosed into larger settlements including Adabraka, Tudu and Asylum Down in recent times and is notably the most crowded commercial area in Accra, housing the largest market (Makola Market) whiles Usher Town, the traditional Central Business District (CBD) and old European Town, is the most densely concentrated area in terms of corporate activities containing the administrative hub (Ministries) of the region and country at large. The CBD contains the local headquarters of many banks and many departmental stores of both foreign and local origin including Barclays, Standard Chartered, SG-SSB, Unilever, Cadbury among others.

Coterminous with the increasing population of the city, the physical confines of Accra has witnessed tremendous extension, merging with and absorbing into its urban domain domitary settlements such as Awoshie, Kwashieman, LaPaz, Abeka, North Odokor to the west, Nungua and Teshie to the east and adjoining localities such as Dome, Taifa, Gbawe, New Achimota, Anyaa, Santa Maria, Amanfrom, NiiBoye Town, Mallam, Kissieman, and Agboba. Again, Grant (2009) notes that, this contemporary urbanization pattern has given rise to a new CBD in Accra that stretches from Osu, through Cantoments to the Airport area. While much of this area was originally residential in function, properties along the main road networks have lately been transformed for commercial uses. Describing the area as a national CBD, Grant (2009) observed that the area is quite unique with a large concentration of foreign mining, finance and producer services while major roads within the area are flanked by many commercial units providing services of varied degree from department stores to office complexes.

The increasing urbanization and globalization of Accra has also led to the emergence of several gated communities as the real estate industry continues to assume enormous importance. Their presence plays a major influence on the business orientation of most service providers including especially telecommunication and courier service providers with the heightened business potential they offer as residents in these areas tend to have relatively higher propensity for such services than those in informal neighbourhoods. Among these gated communities in the city of Accra is the East Airport gated community (the first gated community in Accra), Trassaco Valley in East Legon, Palm Court, Royal Palms and Manet Court in East Airport, ACP Estates near Pokuase, Vista Valley, Tracof and Ivy courts in Spintex, Cantoments Gardens and Devtracco Villas and Bougainville in Baatsona. These communities have significantly oriented the coverage of most courier service providers. Airport residential area for instance is a major business area for almost all the courier service companies in Accra.

Figure 3.2 presents the distribution of the headquarters of the major courier services currently operating in the city. Clearly, the distribution depicts a discernable pattern: the foreign companies appear clustered within the most accessible areas of the city which coincidentally also accommodates most business and industries. At the same time, the emerging local service providers also strategically position themselves to take advantage of the emerging economic niches. This will be discussed in details in the subsequent sub-sections.

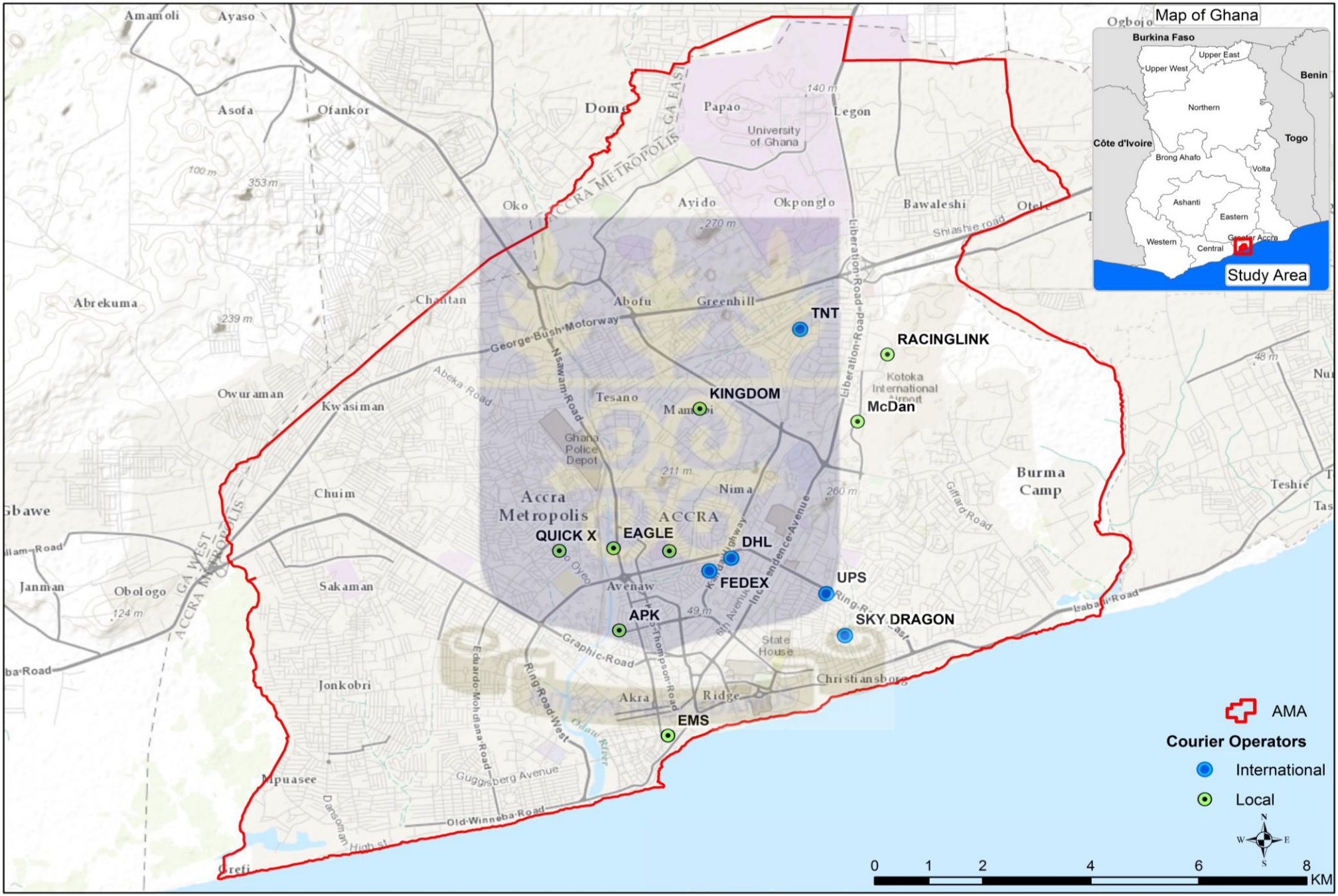


Figure 3.2: Distribution of sampled operators

Source: Fieldwork, 2013

3.4 Major Operational Areas of Selected Courier Services

Generally, courier service provision in Ghana in terms of coverage by the individual companies involved is not uniformly distributed. Some companies have a wider network to all regions while others focus their operations on specific areas. Even though Accra has benefited from the services of all these companies due to its strategic location as both a business and administrative hub of Ghana, local variations exist in terms of the distribution of the major coverage areas of these companies. Various reasons were identified in the field as accounting for the geographical variations, ranging from infrastructural services – roads which impact on where industries are located. Figure 3.3 presents the broad geography of the areal extent of some of the prominent courier service currently operating with Accra Metropolis and the functional areas and regions.

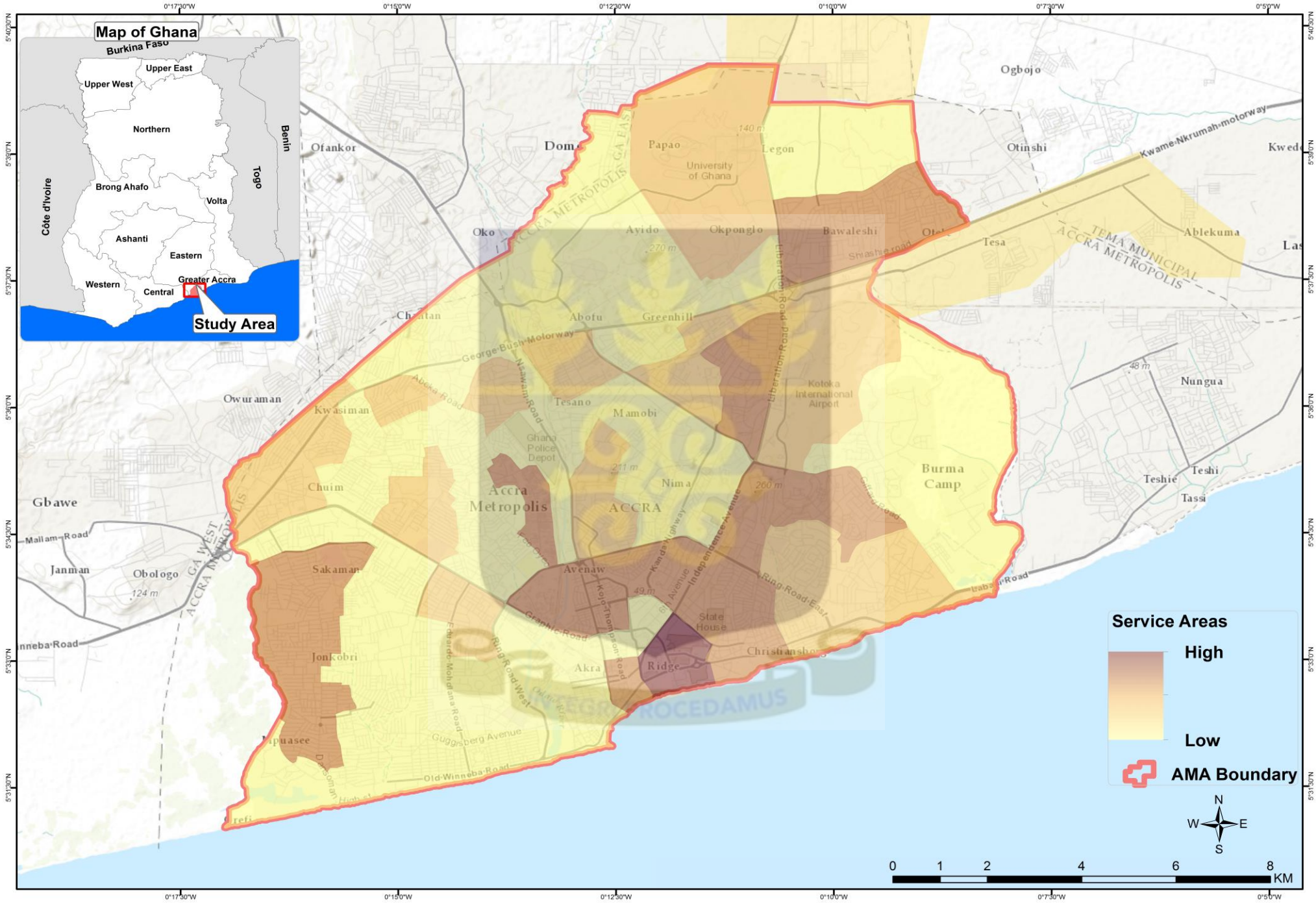


Figure 3.3: Major service areas within AMA

Source: Fieldwork, 2014

The results in Figure 3.3 show, that the distribution pattern of courier services to various parts of Accra is not uniform. Accra Central, Industrial Area and Airport have a higher coverage with almost all the responding companies operating in those areas. This pattern could be as a result of the presence of many business entities in these areas. The location of industries and administrative offices in Accra Central and Airport respectively have served as magnet to attract higher clientele as opposed to residential setting such as Odorkor, Abeka, Labone and Madina among others. Explaining why they have concentrated their operations in these major areas, all companies cited business advantage (client availability) as the main reason for choosing their locations of operation. Other reason advanced was the easy access to these locations during delivery of parcels. The lack of clients and poor address system as well as poor road network were cited as the key reasons why courier service providers operated less in some areas. It thus goes without saying that there appears to be a direct relationship between the economic status of an area and courier services (see Plate 3.1).

3.5 Courier Delivery Services and Characteristics of Sampled Localities

The study shows that, whereas the business/commercial/administrative settings offer more incentive for the operation of courier service companies to residential areas, there exist an equally notable variation in courier operations among low-income and high-income residential areas (see Figure 3.3). Among the residential areas cited within the business catchment extent of most companies included relatively high-income neighbourhood. Companies such as DHL, EMS, UPS, McDan, SkyNet and Eagle Express all had major residential areas of operation including mainly Airport Residential Area, East Legon, Osu, and Tema which are the most acclaimed high-income localities in Accra (see Plate 3.1). On the other hand among the areas courier service providers operated less were Adenta, Kwabenya, Labaadi, Haatso, Adabraka, Gbawe, Keneshie (see Plate 3.2), Odorkor and Old Dansoman among others (see Plate 3.3).

Plate 3.1 Characteristics of high-income community

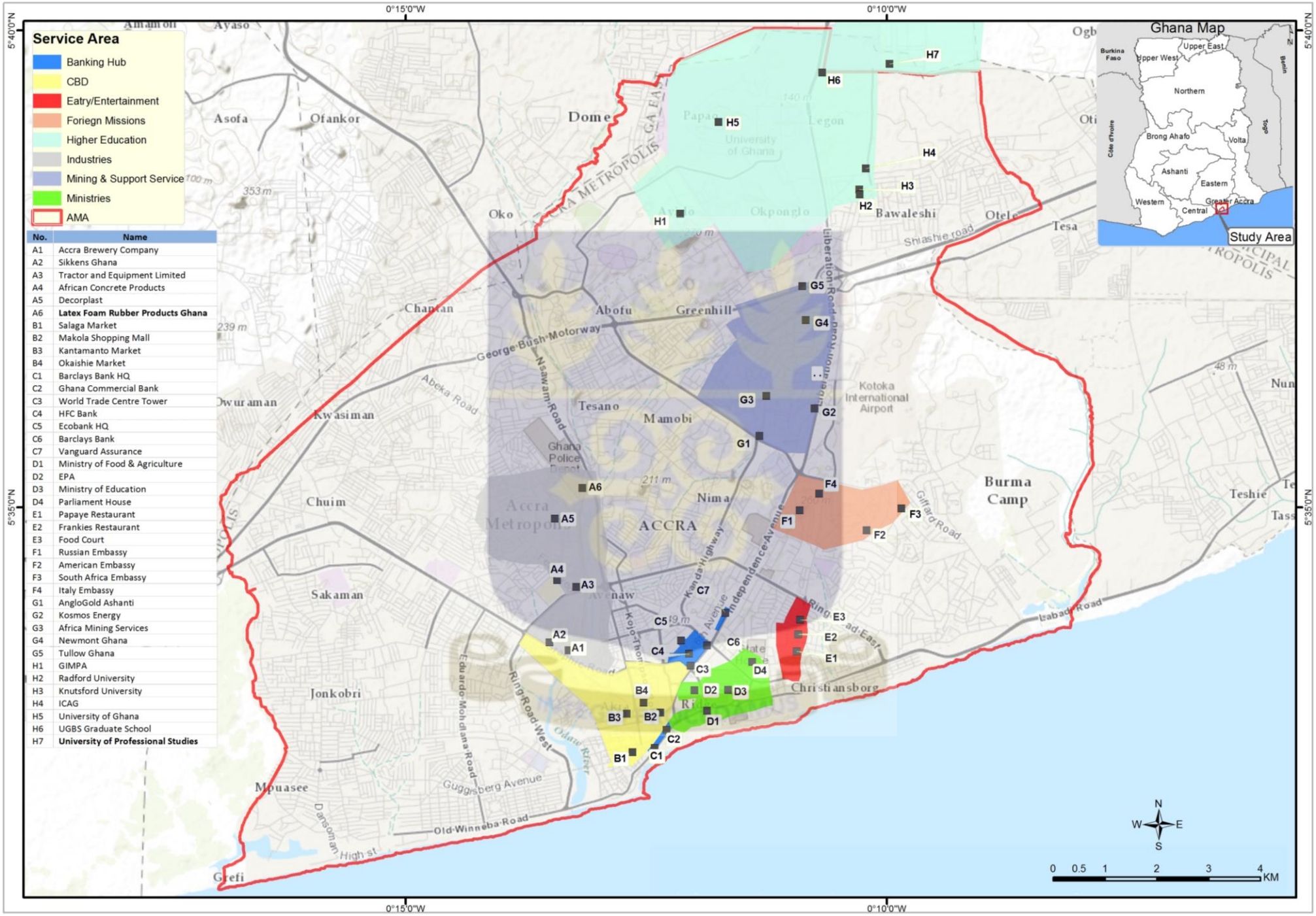
Source: Fieldwork, 2014

The high-income areas are well-planned areas, normally have top civil servants, diplomats, foreign missions and those affluent in the society. In recent years, there have been new multimillion-dollar apartment and housing complexes attracting the top-income earners and also many multinational companies have sited their cooperate head offices here, particularly mining (AMS) and petroleum (Tullow, Kosmos Energy) industry. The Airport residential community has a better house to street configuration than the other communities. Streets are wide with drains and well-manicured lawns in front of walled properties. These are some of the common features that characterize high-income communities within the city. Some streets names and house number signs are visible here. However, these residential properties have well demarcated boundary (a wall) but some properties have no house number signs.

Plate 3.2: Characteristics of middle-income community

Source: Fieldwork, 2014

The middle-income neighbourhoods are ordinarily planned areas but have suffered deterioration due to urbanisation, over-population and densification of the metropolis. As a result, some available spaces have been transformed and occupied. Street shoulders and walkways are being used as vending space, (see C) and some residents are converting part of their houses into mini shops (see B). Some residential properties within the middle-income communities also do not have numbering signs. These communities exhibits sharp contrasting street environment. There are elements of the high-income neighbourhood like property boundaries and in some cases, lawns in-front of houses (see A) and low-income community characteristics such as in-filling with kiosks, containers and table-top vending (D).



No.	Name
A1	Accra Brewery Company
A2	Sikkens Ghana
A3	Tractor and Equipment Limited
A4	African Concrete Products
A5	Decorplast
A6	**Latex Foam Rubber Products Ghana**
B1	Salaga Market
B2	Makola Shopping Mall
B3	Kantamanto Market
B4	Okaishie Market
C1	Barclays Bank HQ
C2	Ghana Commercial Bank
C3	World Trade Centre Tower
C4	HFC Bank
C5	Ecobank HQ
C6	Barclays Bank
C7	Vanguard Assurance
D1	Ministry of Food & Agriculture
D2	EPA
D3	Ministry of Education
D4	Parliament House
E1	Papaye Restaurant
E2	Frankies Restaurant
E3	Food Court
F1	Russian Embassy
F2	American Embassy
F3	South Africa Embassy
F4	Italy Embassy
G1	AngloGold Ashanti
G2	Kosmos Energy
G3	Africa Mining Services
G4	Newmont Ghana
G5	Tullow Ghana
H1	GIMPA
H2	Radford University
H3	Knutsford University
H4	ICAG
H5	University of Ghana
H6	UGBS Graduate School
H7	**University of Professional Studies**

Figure 3.4: Major activity areas within the city that attract courier companies
Source: Fieldwork, 2013

The study revealed that the low-income areas are most disadvantaged when it comes to the operations of the formal courier service. Apart from the difficulty associated with locating preferred addresses in these relatively unplanned low-income communities, the major disincentive to operation in these neighbourhoods – the low client base, could be a function of the income levels and educational status of most residents. The poor road infrastructure in these areas has also not helped matters (see Plate 3.3).

Plate 3.3: Characteristics of low income community

Source: Fieldwork, 2014

One major characteristic of the low-income area is the impassability of the area apart from the major road leading to the neighbourhood as depicted in Plate A. Operators device ingenious ways of locating individuals and places.In the low-income community, it is common to notice unapproved signposts of different sizes places haphazardly along the roads (see Plate C). Structures are put up very close to the road thereby narrowing the way (see Plate B). There is no room for pedestrians and they are forced to share the road with parked, moving vehicles and table top vendors (see Plate D).

The propensity to patronize courier services relates greatly to the individual's ability to pay and whether based on the educational and work status of a person, her/she receives or sends parcels. The distributive pattern observed in Accra therefore becomes apparent as courier services may be patronized in high-income localities where residents can afford the cost. Whiles this distributive pattern is obviously influenced by the type of localities involved (low income or high-income), there is an apparent spatial clustering of operations in the Central Business District (CBD) where business activity and administration are centred as all respondent companies identified the CBD – Central Accra, as a major base of clients.

Accra's CBD (see Plate 3.5) presents an interesting scenario. It is the home of almost all the headquarters of government agencies and departments. Like all CBDs worldwide, it houses all national entertainment and leisure industry – The National Theatre, The Art Centre, Movenpeck and Novotel hotels among others (See Plate 3.4). Most high rise building accommodating private and some public departments are located here – the Heritage Towers, Accra Word Trade Center, Accra Financial Center among others. These were identified as among the greatest motivation for the concentration of courier services operators in that environment.

Plate 3.4: Some prominent structures within the CBD of Accra

Source: Internet, 2014

The CBD attracts many activities daily, thereby having a significant large numbers of people making trips there for various functions. Among the many places are the The National Theatre (A), The Movenpick Hotel (B), Heritage Towers, and the SSNIT Towers (D)

Plate 3.5: Characteristics of the commercial area

Source: Fieldwork, 2014

At the commercial area (Ministries Area) Street signs posts are visible (See Plates A,B,C,D). They can be easily noticed at street intersections and junctions. Although the sings are many here, not all streets have visible post displaying their names. What is conspicuously absent here is property numbers. Many of the buildings within the ministries are not having visible number plates as in the case of the residential buildings in the high-income communities. With minimal struggles, one can make his way within the area thanks to large ministerial name signs plastered on the buildings

3.6 Distribution of Delivery Points

To understand the extent of movement by couriers, it is important to estimate the number of deliveries within the city. Selected dispatch officers were monitored for a period of 14 days. Each location they visited was geocoded with the aid of a handheld GPS. These points were mapped using GIS. With the various delivery points plotted on the map, spatial statistics techniques were run on the data to determine the distribution of these delivery points.

The city of Accra, has many commuters converging into the lager CBD (areas encompassing by the Ring Road) daily. There are many activities found here, with the large portion being, trading, wholesaling and retailing, government business, commerce and a host of other informal activities. These activities attract the largest individual trips within the city daily and suggest high concentration of activities. Similarly, this area also attracts the highest deliveries as seen in Figure 3.5.

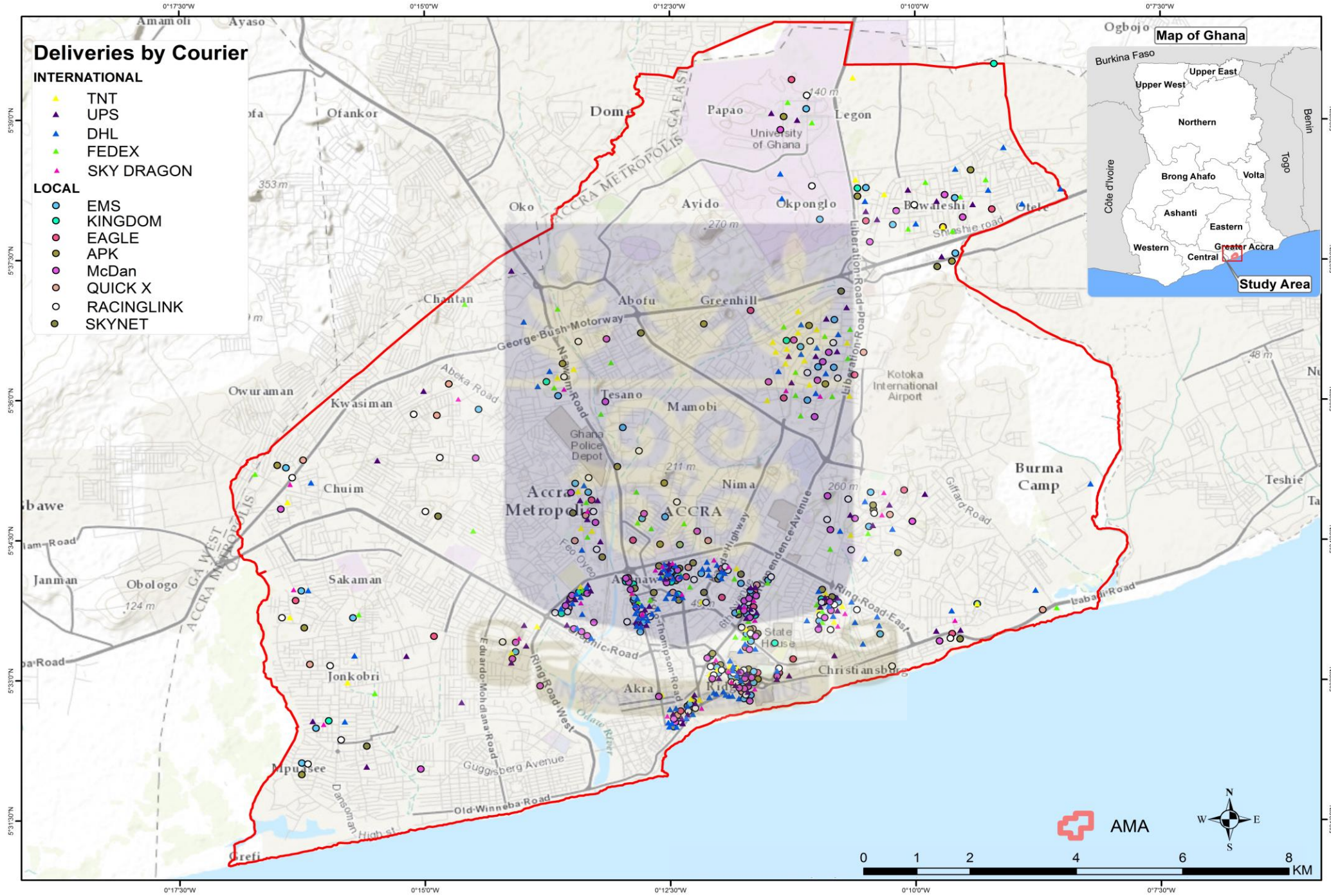


Figure 3.5: Spatial distribution of delivery points within the city

Source: Fieldwork, 2014

The areas northwards of the Ring Road also attract relatively low levels of delivery. Airport and East Legon show the next high areas of deliveries. A more vivid picture emerges when the distribution of delivery are plotted as point densities. This revealed that the most concentrated delivery points are found within the large CBD area with a density of 60 – 90 deliveries per square kilometre. With such heavy concentration of deliveries, the demand for courier services is expected to be high in this particular part of the city. Figure 3.6 shows that the highest concentrations of deliveries are the Ministries and Adabraka areas. Labone, Osu, some parts of North and South Industrial Areas and East Legon also received a large number of deliveries.

It is noticeable from Figure 3.5 that courier deliveries are spatially concentrated to specific areas of the city. This implies that certain activities attract courier services more than others. The situation is quite the opposite with predominantly residential areas. The spatial distribution of packages delivered by sampled operators all revealed similar patterns with a majority going to areas of economic activities and minority to predominantly residential areas.

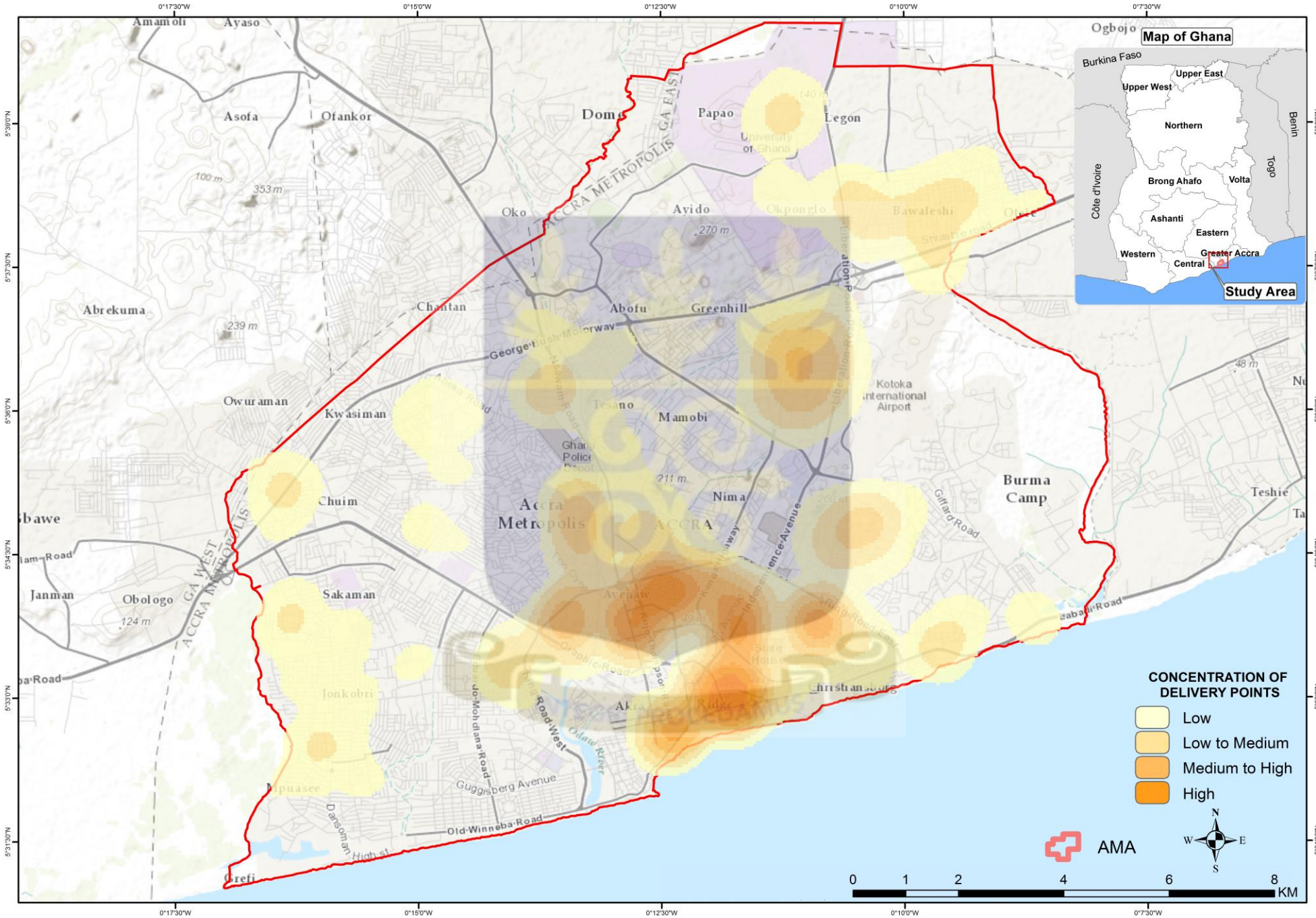


Figure 3.6: Spatial concentration of delivery points within the city

Source: Fieldwork, 2014

3.7 The Modes of Flow of Courier Services with Beneficiaries

Locating clients is an important component in the delivery process of goods and services to owners. In the drive to gain competitive advantage, ensuring high security and certainty of delivery has been as important as transport technology as a recipe to gain a competitive edge in the courier industry among all service providers. Advancement in technology over the years, has therefore offered courier service providers more convenient and secured ways of delivering parcels. The result confirm that the main modes of locating clients include the use of phone calls, landmark directions, maps, internet search and verbal enquiries. Their use in locating clients are not mutually exclusive but can be combined to yield efficient results. The figure below outlines the modes of locating clients employed by courier service providers in Accra.

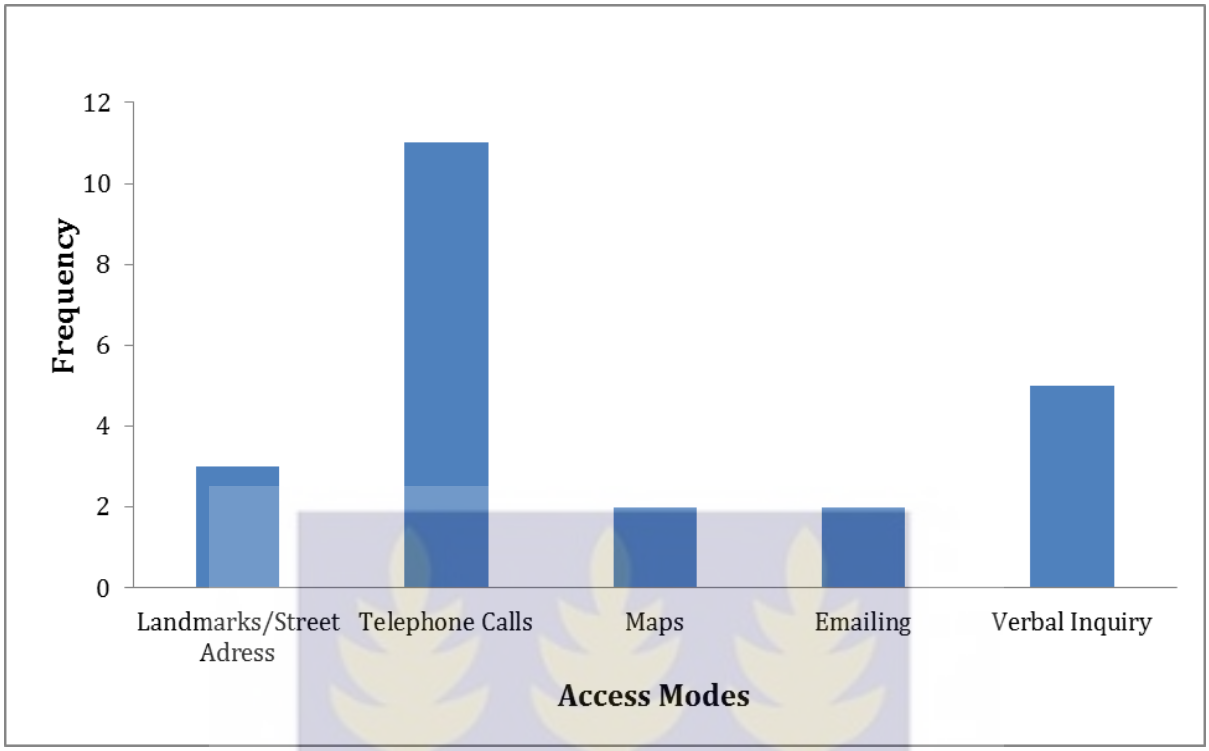


Figure 3.7: Access Modes for locating clients during parcel delivery
Source: Authors computation from Field Data, 2014

From Figure 3.7, the findings from the study indicate that the dominant mode of locating clients among courier service providers involved the use of telephone calls to obtain the location of clients. Significantly, the result revealed verbal enquiries and use of landmarks followed as the next dominant mode of reaching clients which partly relates to the unplanned nature of structures in the Accra. Other least used methods included emailing, maps and the use of the street address system. Even though all the responding companies use telephone calls as the major means of locating owners of packages, its effectiveness is re-enforced by the application of some of the other access modes such as asking people along the way and street names where available.

In other words, even though telephone appears to be a dominant mode of locating clients in the delivery service, this has to be complemented with other modes once you get to the "ground" due to poor labeling and addresses systems. Lack of infrastructural services in some

vicinities compound the problem. Faced with these challenges, one has to depend on the magnanimity of local residents for assistance.

A major part of the delivery process equally relies on the transport means used. The adoption of a means of transport during delivery is dictated by the nature of the consignment to be delivered as well as the time frame for its delivery. The latter is particularly important in certain parts of Accra especially in the CBD where the traffic moves at a snail pace (Oteng-Ababio and Agyeman, 2012).As a result the area of specialization of respondent companies determined the transport that is used in the delivery process. On a general scale the two main transport forms used in delivery in Accra are motorbikes and vans. Companies specialized in the delivery of parcels which are less bulky (mainly letters, documents, medicine and packed lunch) use motorbikes in ensuring swift delivery. The use of vans for delivery is greater among courier companies who deliver bulky goods mostly in logistics forwarding. The specialization in the use of a particular means of transport by courier companies in Ghana, therefore appears transient in view of the emerging number of players in the industry which has compelled most of these companies to broaden their scope and delve into other areas of courier service delivery in the phase of the heightened competition in the industry in recent times. As a result, all companies were found to adopt a combination of the use of motorbikes and vans in the delivery process though fleet numbers (motors or vans) are usually skewed towards the major specialization of the company in question.

3.8 Summary

This chapter examined the geographies of the courier service operations within the city of Accra. An analysis of both international and local operators depict that most service provided cluster around where their major clients are located – the CBD and other enclaves. Areas disproportionately served with infrastructural services have also attracted many courier

service providers. The disadvantaged neighbourhoods are virtually diminishing on the radar of most service providers especially, the foreign multi-national companies. Strikingly, in terms of locating the prospective clients, the study revealed that most companies rely on telephone services but complement that with other unorthodox modes such as the use of "verbal request" for some neighbourhoods. It was also established that the choice of mode of transportation is influenced by the type of item to be delivered and the traffic situation in the destination of the service. From this background the next chapter interrogates the nature and efficiency of the current modus oparandi in delivery of service. This will be given from the perspective of the service beneficiaries and providers alike. The intent is to facilitate attempt to give appropriate recommendations for policy consideration in the quest to improve the courier service industry in the future.

CHAPTER FOUR: THE NATURE AND EFFICIENCY OF COURIER SERVICES IN ACCRA

4.1 Introduction

This chapter gauges the efficiency levels of the current operations of courier services in the country using the results of quantitative data collected from Accra, the national capital as a case study. Many city authorities, saddled with lack of planning coupled with financial constraints as the case of Accra clearly exemplifies, have long been wrestling with the balance between urban development and long-term sustainability, particularly, regarding infrastructural provision. Such tendency impacts negatively on how the current social and governance processes will protect, regulate and facilitate the perpetuation of urban services delivery. It is in this light that this chapter examines the performance of courier services, both foreign and nationals, currently operating with the metropolis.

4.2 The nature of courier services in Ghana

The follow section discusses demographic profile of respondent for this study, urban identification system, nature of transportation channels and courier service in Ghana.

4.2.1 The Demographic Profiles of Respondents

The study involved the administering a total of 156 questionnaires between the months of October and November, 2014. Table 4.1 presents the demographic characteristics of the respondents across different research locations in this study. From the table, it can be observed that 40 percent of the interviewees were female while 60 percent were male. Additionally, majority of the respondents were within the 20 and 60 age cohort (see Figure 4.1 for the graphical representation of the sampled population age pyramid).

Table 4.1: Demographic characteristics of respondents across different locations

Items	AIRPORT	KANESHI	LABADI	MINISTRIES	OVERALL
	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)
Gender					
Male	19 (70)	31 (52.5)	32 (70)	14 (52)	96 (60)
Female	8 (30)	28 (47.5)	14 (30)	13 (38)	63 (40)
Age					
≤ 20	0 (0)	6 (10)	9 (20)	1 (2)	16 (10)
21 - 40	17 (74)	37 (63)	21 (46)	15 (28)	90 (59)
41 - 60	5 (22)	13 (22)	12 (28)	10 (19)	40 (26)
61 - 80	1 (4)	3 (5)	3 (7)	0 (0)	7 (5)
Education					
None	2 (8)	4 (7)	5 (11)	0 (0)	11 (7)
Elementary	0	2	2	0 (0)	4
JHS	3 (12)	7 (15)	7 (19)	0 (0)	17 (14)
SHS	3 (12)	23 (40)	17 (37)	3 (12)	46 (29)
Tertiary	8	11	9	13	41
University	5 (50)	7 (31)	5 (31)	5 (69)	22 (40)
Master's/PhD	5 (19)	4 (7)	1 (2)	5 (19)	15 (10)
Nature of employment					
Self	5 (20)	27 (48)	17 (43)	2 (8)	51 (35)
Intermittent	0 (0)	2 (4)	3 (8)	1 (4)	6 (4)
Permanent	20 (80)	19 (34)	10 (25)	23 (88)	72 (49)
Unemployed	0 (0)	8 (14)	10 (25)	0 (0)	18 (12)

Source: Fieldwork, 2014

The findings of the survey show that the respondents were dominated by the youth, which accounts for the largest share within the study locations and this has implications for the industry. Both Figure 4.1 and Table 4.1 suggest that almost 60 percent of the respondents were within the 21 to 40-age cohort. Also interesting to note is that those within the 41 to 60-age cohort were equally high, registering 26 percent almost tripled compared to those under 20.

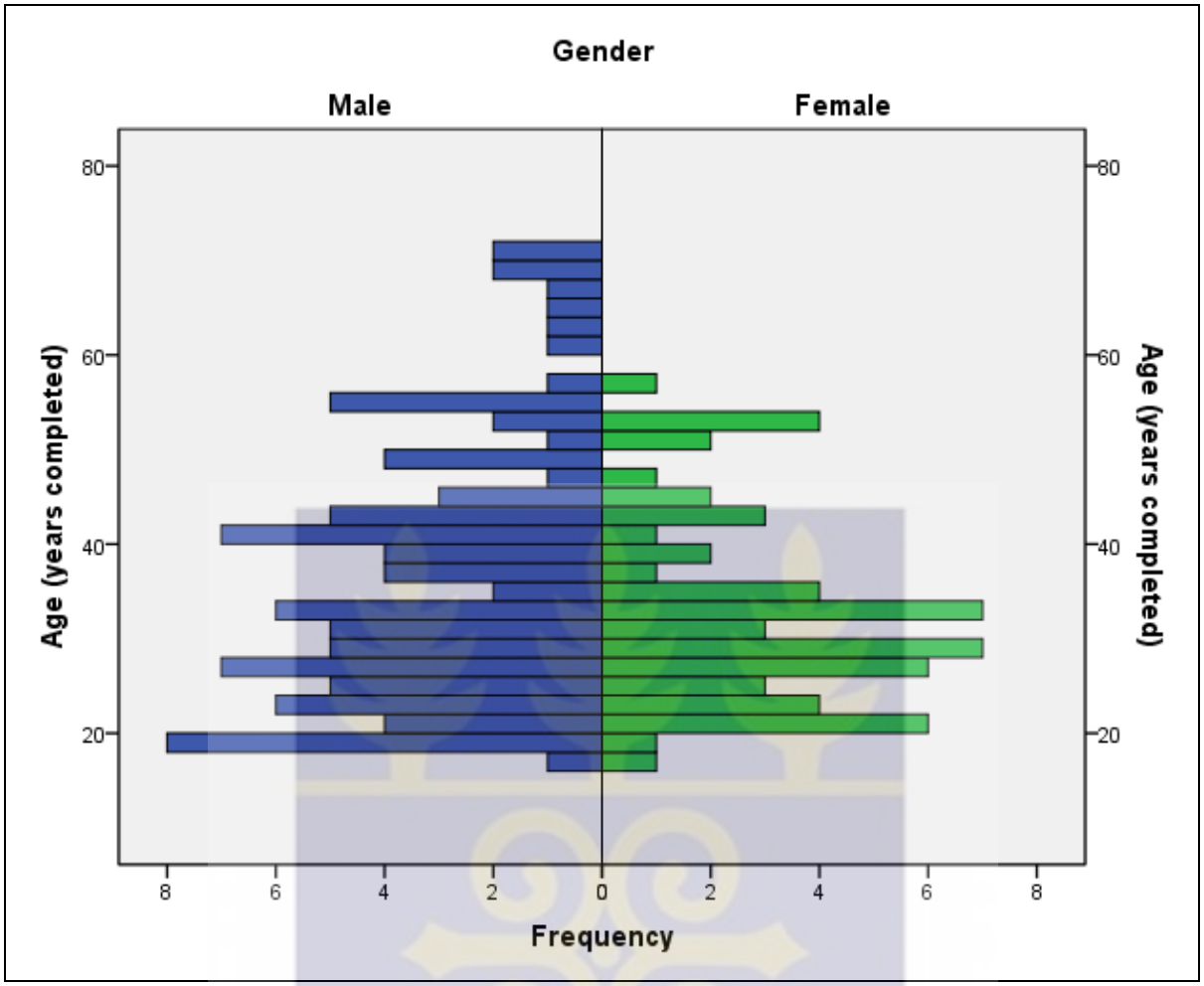


Figure 4.1: Population pyramid
Source: Fieldwork, 2014

In terms of education, a good number of respondents were at the graduate level (40%), alongside respondents at the post-graduate level (10%), senior high or secondary (29%), and other levels of education (21%). Figure 4.2 presents the gender-education level dynamics. The majority of the respondents were employees (49%), while the rest were self-employed (35%); intermittent (4%) or unemployed (12%). As the study focuses on courier services provided in Ghana, there were more Ghanaian respondents (64.5%) compare to non-Ghanaians who live in Ghana (35.5%). It is important to add that the level of education of respondents is critical to the extent that one's ability to read and appreciation of the importance of the street addressing systems is contingent on one's level of education. From

that perspective, all things being equal, one would therefore expect the sampled population's appreciation of the street addressing system to be very high and apt.

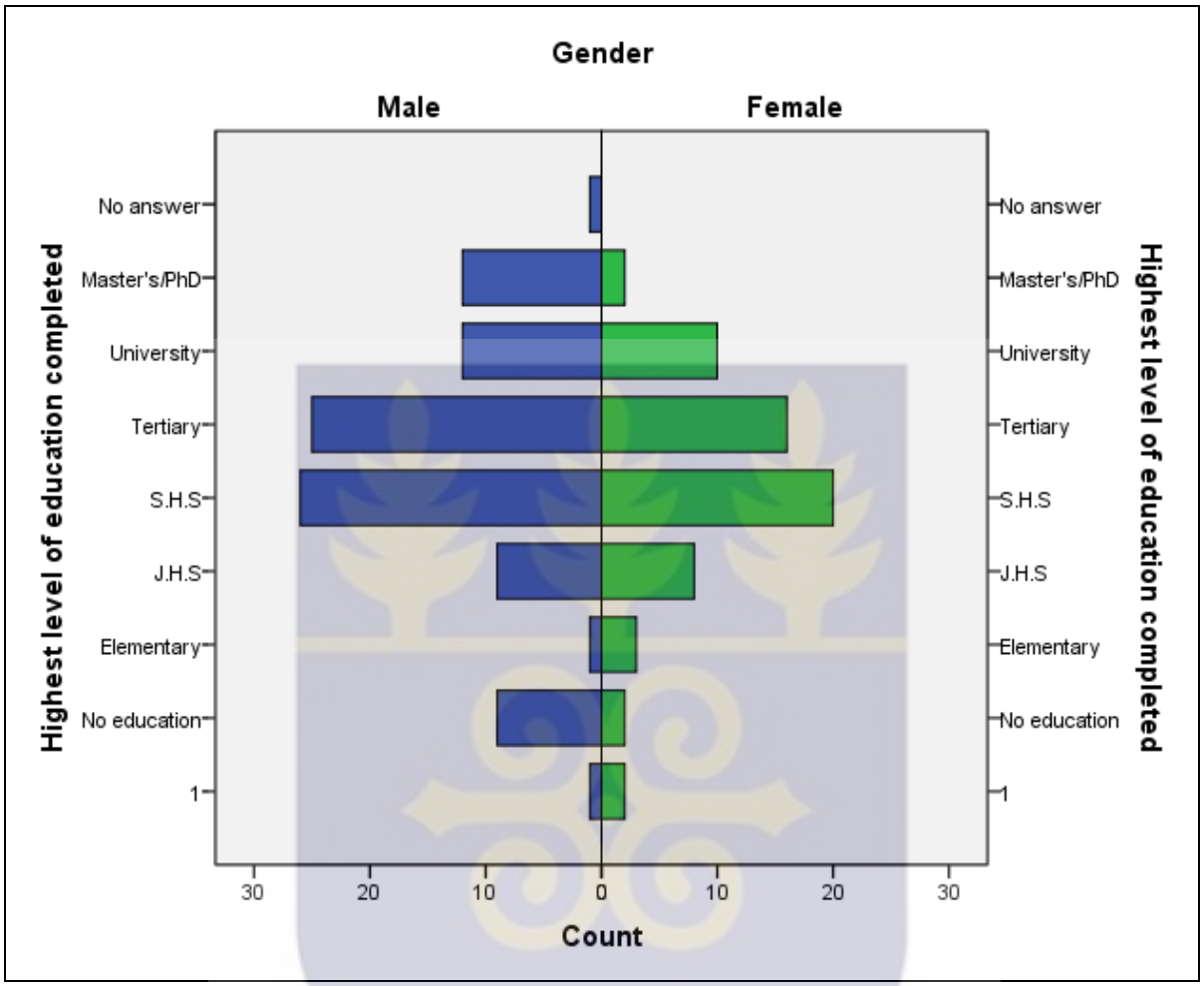


Figure 4.2: Gender and highest level of education
Source: Fieldwork, 2014

4.2.2 Urban Identification System

One of the greatest challenges facing modern system theory in general is the modeling and simulation of societal systems. Unreasonable redevelopment of urban services leads to problems such as traffic congestion and it is not propitious for sustainable development of cities. In order to judge the rationality of urban services including courier service deliveries on the basis of impact, a city identification system is inevitably needed. In order to evaluate the impact of courier services on the city, its residents and economy, the study interrogated

the presence or otherwise of street names and house numbers within the respondents' individual neighbourhood.

Table 4.2 presents the results of the survey. The table suggests a steady increase in the presence of street names and house numbers with increasing wealth. Thus, only 33 percent of the respondents in Labadi, a low-income community among the research localities, responded positively to the presence of street names and house numbers in the area. Conversely, 78 and 85 percent of the respondents in Airport, a high-income neighbour consented to the presence of street names and house numbers respectively. Also interesting to note are the results from the ministries, the core public sector activities, where 65 and 84 positively agreed to the presence of street names and house numbers.

Table 4.2: Presence of street names and house numbers

Items	**AIRPORT**	**KANESHI**	**LABADI**	**MINISTRIES**	**OVERALL**
	Frequency(%)	**Frequency(%)**	**Frequency(%)**	**Frequency(%)**	**Frequency(%)**
PHN					
Yes	21(78)	37(63)	15(33)	17(65)	90(57)
No	6(22)	22(37)	31(67)	9(35)	68(43)
PSN					
Yes	22(85)	36(64)	13(33)	21(84)	92(63)
No	4(15)	20(36)	27(68)	4(16)	55(37)
USN					
Yes	21(81)	34(62)	15(38)	20(80)	90(62)
No	5(19)	21(38)	25(63)	5(20)	56(38)

Source: Fieldwork, 2014

NB: **PHN**-Presence of House Numbers; **PSN**-Presence of Streets Name; **USN**-Use of Street or house Numbers

In most developed countries, available facilities and techniques including Google Maps now provide vital information when giving directions to get from Point A to Point B. In addition to driving directions, Google Maps for example provides transit information for getting to where you want to go. In such situations, when you ask to get directions via public transit, the bus routes for example, are included in the options you're given as well as other additional information such as directions to the bus stop and schedule information are also provided.

These positive developments exhibited in the developed world have evolved over the years through conscious, dedicated and committed planning schemes. The story in developing world varies.

Figure 4.3 presents the breakdown of the respondents' preferred mode of giving directions in the face of the level of infrastructure in the various research localities. Generally, the most preferred mode across board for all localities relates to the use of conspicuous and well-known landmark, with Airport registering about 38 percent with Ministries recording the highest of about 62 percent. It is important to state that even though about 40 percent and10 percent of the respondents from Airport and the Ministries (both formal neighbourhood) respectively use the street names and house numbers, the high percentages using landmarks as their point of reference is intriguing. The cases of Labadi (about 50%) and North Kaneshie (about 40%), low-income and middle-income neighbourhood respectively may not deviate from the expected.

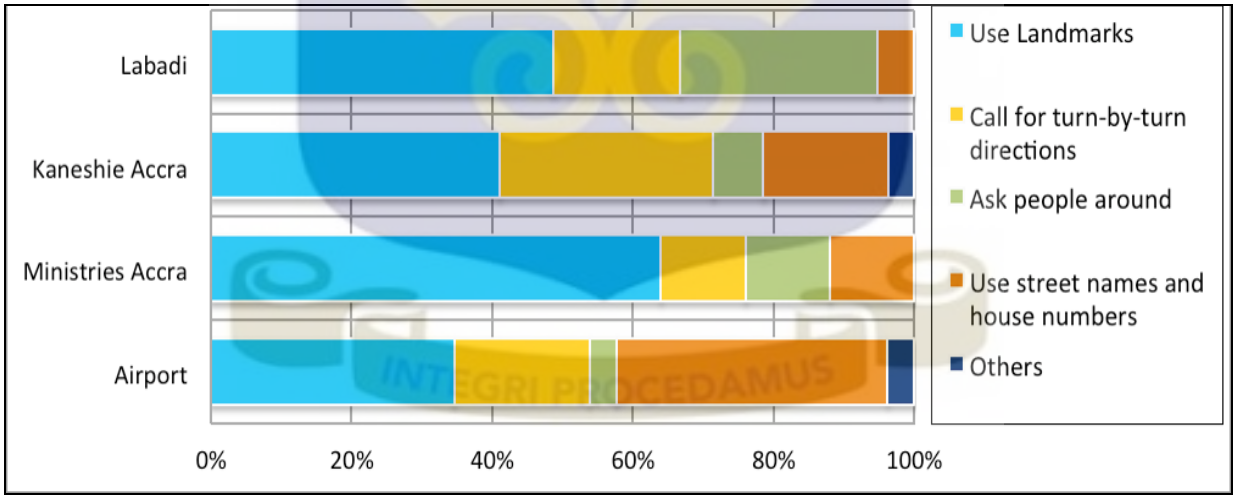


Figure 4.3: Preferred mode of giving directions by respondents
Source: Fieldwork, 2014

The Ghana street address operational guidelines (2010) require the local authority to prepare street naming and numbering schemes and to maintain a good standard of street nameplates. Both are essential for the efficient functioning of postal and emergency services as well as for the convenience and safety of the general public. The guidelines give authorities the power to

insist that the name of every street shall be shown in a conspicuous position and, also alter or renew it if it becomes for any reason illegible. This section also makes it illegal to pull down or remove a street name, which has been lawfully set up, or to fix a notice or advertisement within close proximity to the sign. Anyone found guilty of infringing these requirements can be liable to a fine imposed by a Magistrate's Court. These guidelines also give the assemblies the ability to produce regulations concerning the erection of signs for the names of public streets and, ensure that the names and numbers of all buildings are displayed by their owners in accordance with these regulations. Street naming and numbering is an important aspect of modern life that is often taken for granted, but it is sufficiently important to need legislation to enforce the requirements of government and local government in this area.

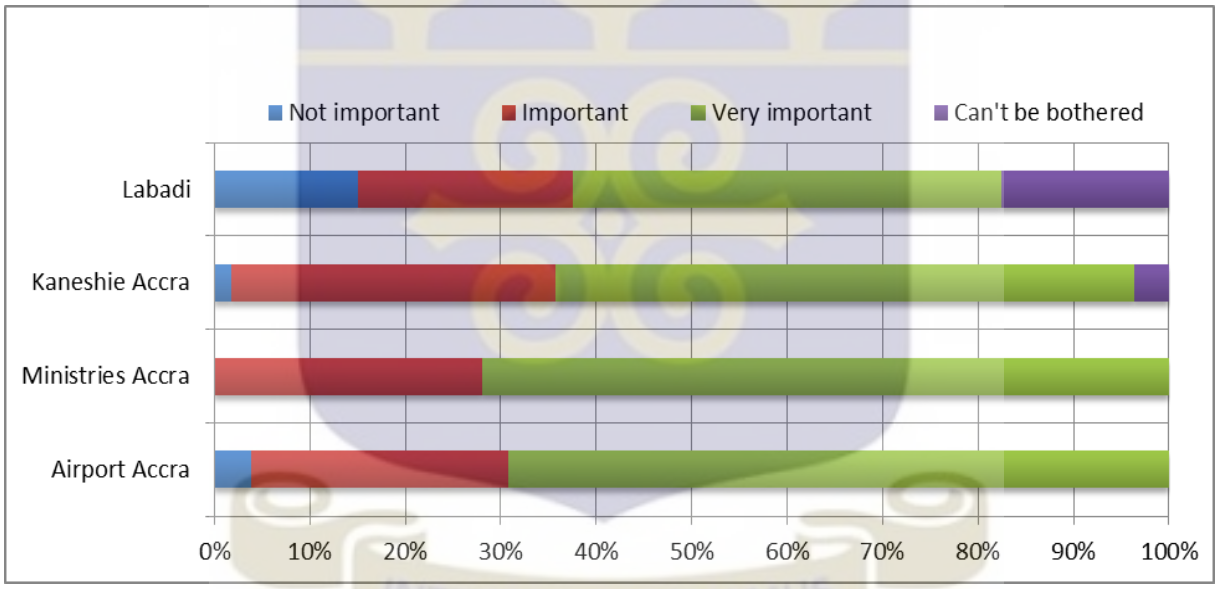


Figure 4.4: Importance of street names and house numbers to respondents
Source: Fieldwork, 2014

Figure 4.4 also reveals the importance of street naming and house numbers as per the respondents' responses in the various localities. The observation is consistent with "the good news syndrome" presented by Oteng-Ababio, (2014), where majority of the respondents in all the research localities see the exercise as important. Even though Oteng-Ababio, (2014) does not explain the reasons for this phenomenon, it is hypothesized that our socio-cultural

practices which enjoins one to be each brother's keeper has made constant interactions among ourselves makes either asking for and giving directions a common practice.

4.2.3 Road networks, courier services and performance efficiency

Because the performance of courier services has more to do with reliable, efficient and affordable transportation networks, the analysis extends to how respondents perceived the current road networks in their respective areas. This was premised on the fact that an efficient road networks support the economy through the provision of a safe and reliable strategic connectivity, which allows for the efficient movement of people and goods. Such a network can play a key part in enabling and sustaining economic prosperity and productivity, while also helping support environmental and social aims by contributing to wider sustainability objectives and improved accessibility to key economic and social services including but not limited to courier services. More importantly, a well-functioning strategic road network enables growth by providing for safe and reliable journeys. This can help reduce business costs by providing certainty, improving access to markets and clients, enabling competition, improving labour mobility, enabling economies of scale, and helping attract inward investment.

Table 4.3 summarizes the findings of the current state of efficiency as perceived by those interviewed during the study. Generally, findings show that majority of respondents from all localities negatively associated all the variables used to assess the road network in the study area. The findings coincide with the general perception of the road networks in most developing countries including Ghana where majority of the population think are in very deplorable situation (Meagher, 2010; Oteng-Ababio, 2014).

Table 4.3: Local road networks quality

Items	AIRPORT Frequency(%)	KANESHI Frequency(%)	LABADI Frequency(%)	MINISTRIES Frequency(%)	OVERALL Frequency(%)
NRC					
Yes	10 (40)	10 (17)	1 (2)	4 (15)	25 (16)
No	15 (60)	49 (83)	45 (98)	23 (85)	132 (84)
RoR					
Yes	16 (62)	22 (37)	21 (46)	12 (44)	71 (45)
No	10 (38)	37 (63)	25 (54)	15 (56)	81 (55)
CRR					
Yes	4 (16)	13 (23)	11 (24)	0 (0)	28 (18)
No	17 (68)	24 (42)	27 (59)	13 (48)	81 (52)
Don't know	4 (16)	20 (35)	8 (17)	14 (52)	46 (30)
WLR					
Yes	9 (35)	32 (55)	26 (59)	7 (26)	74 (48)
No	17 (65)	26 (45)	18 (41)	20 (74)	81 (52)

Source: Fieldwork, 2014

NB: NRC-New Road Constructed; **RoR**-Repair of Road; **CRR**-Community constructing or Repairing Roads; **WLR**-Water Logging of roads by Rains

During the interviews, most road users ironically believe local road construction and maintenance have greatly improved over the past two years, contributing to significantly greater satisfaction among them than those preceding. This is primarily due to construction of few new sections of arterial asphalt roads that connect some of the most remote villages with the municipality (see Figure 4.5). These investments partially resolved the problems of some of the most populated settlements. Nonetheless, majority of the inner city roads remain unusable particularly during the rainy season. During in-depth interviews with the public providers of road network, connecting individual communities with asphalt roads would require significantly more funding, as presently, most of the roads are mainly dirt roads and pathways.

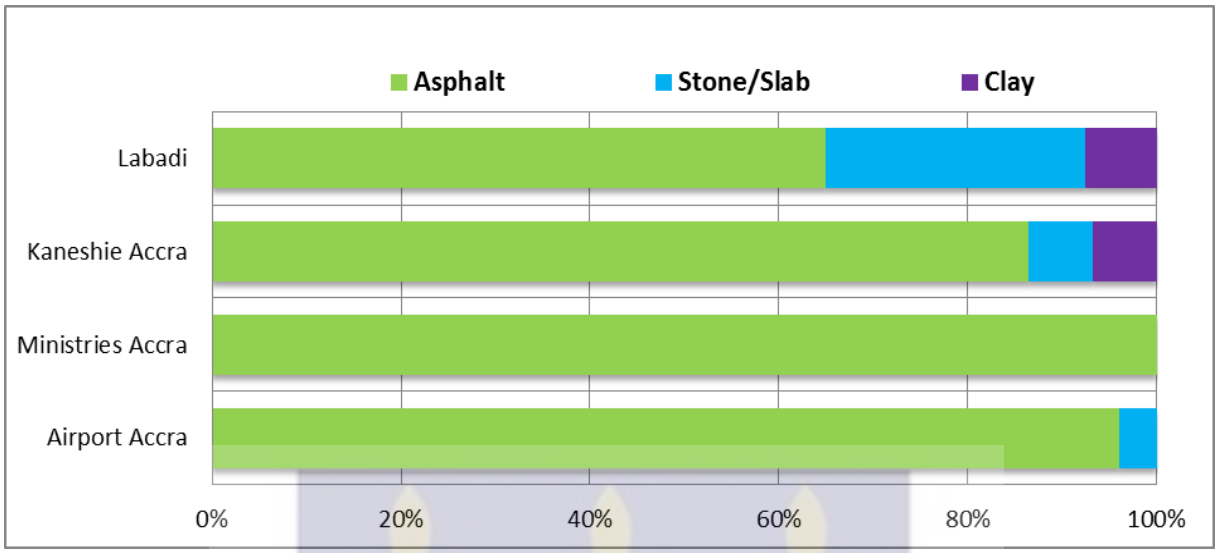


Figure 4.5: Nature of road from house to other communities
Source: Fieldwork, 2014

Majority of the participants (85%) during in the focus group meeting were unanimous in their support for municipal authority decision to construct roads to make the street address system a reality. However, despite this broad-based support, some users from urban areas complain that the local administration pays no attention to side roads and focuses only on the main road running through the city centre. Distance and population size are the two primary criteria used by administrative bodies in deciding where to construct roads. Most roads connecting the outskirts with the city centre are in very poor condition and almost impassable for motor vehicles.

Efficient transportation system is the one with a public transport focus, able to connect businesses, people and places (Oteng-Ababio, 2014). Accordingly, respondents were asked how they do evaluate the current road maintenance culture in the various locations. The results (see Figure 4.6) were not significantly different from those discussed earlier. Generally, most respondents expressed satisfaction of the current maintenance culture and as already explained, this was not very surprising since at the individual level "the observed

improvements had not been seen for years". The question is whether the so-called improvement can guarantee the efficient operations of courier services in the study area.

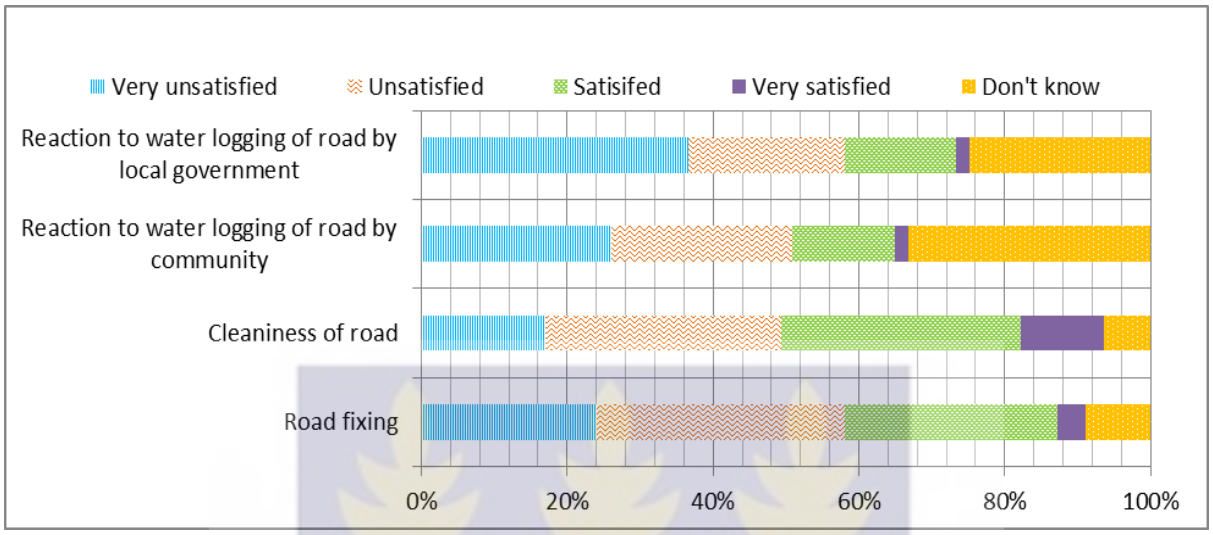


Figure 4.6: Level of satisfaction to maintenance of roads in vicinity
Source: Fieldwork, 2014

From the forgoing we can draw some tentative conclusions; the results clearly envisage that courier services can potentially perform efficiently in "a city with a safe and efficient transportation system with a public transport focus and a well-developed and well-maintained roads and storm water infrastructure, able to connect businesses, people and places in a sustainable and cost effective manner, enhancing the standard of living and quality of life for all inhabitants as well as the overall competitiveness and growth of the local economy" (Johannesburg Municipal Report, 2008).

Further, it can also be deduced that in most of the world's fastest-growing cities, most of which are in developing countries, the streets have no names and that leaves about half of the world's urban population, or 1.8 billion people, without an address (UN-Habitat, 2014). That leaves the act of giving direction to one's imaginations, level of knowledge of the community and at the whims and caprices of individuals. Consequently, the normal symphony one hears when one asks for a direction rhymes as follows: 'Drive past the catholic church on your right about 2 kilometers from here until you pass the junction with the Vodafone vendor (see Plate

4.1 B). Turn right and drive down the road until you see a “waakye seller” beside the big tree (see Plate 4.1 A). Ask him how to get to Mr. X's house".

Plate 4.1: Samples of common landmarks fornavigating in the city

Source: Fieldwork, 2014

With the absence of the street name sign post, locals resort to using structures (temporal structures) in giving out directions. This has become the “preferred” means since interaction must go on. In the plate above, the “waakye seller” (food vendor) and the “Vodafone credit” vendor at the junction are vital landmarks. They are used as reference points in giving directions. This is very common in the middle to low-income communities within the city.

The study has brought to the fore, the significance of street address system. It is a critical and overwhelming developmental tool and not just because unnamed streets are inconvenient navigating through. One of the key informants interviewed remarked that, in an emergency for example, if you do not have an address, there is a high probability that it is unlikely that police or an ambulance will reach you in time. Indeed, majority of the participants alluded to how lack of proper address system makes most tourists struggle wanting to wander around city, and occasionally creating unfounded fear among some that they will get completely get “lost in the wilderness”. And perhaps most significantly, most participants unanimously admitted that without proper address system, most sub-metros within the sub-region cannot collect the much needed taxes, needed to push their development agenda.

In an interview with an urban planner, he sarcastically remarked that "Yes, online shopping is possible these days, which is especially helpful for some families, some emergency services can find your home, some adventurous tourists can find their way around the city. But

perhaps the most significant step is in providing other essential public services- water, basic education, and public health and how to find these services." In his estimation proper address system will facilitate and increase internal generated revenue and help pay for those services. He sees it as a process that could easily work in other cities, adding; "Modern technology has made the process inexpensive, efficient and quick," "It works for people living in slums as much as it does for those in the wealthier areas of the city – everyone benefits."

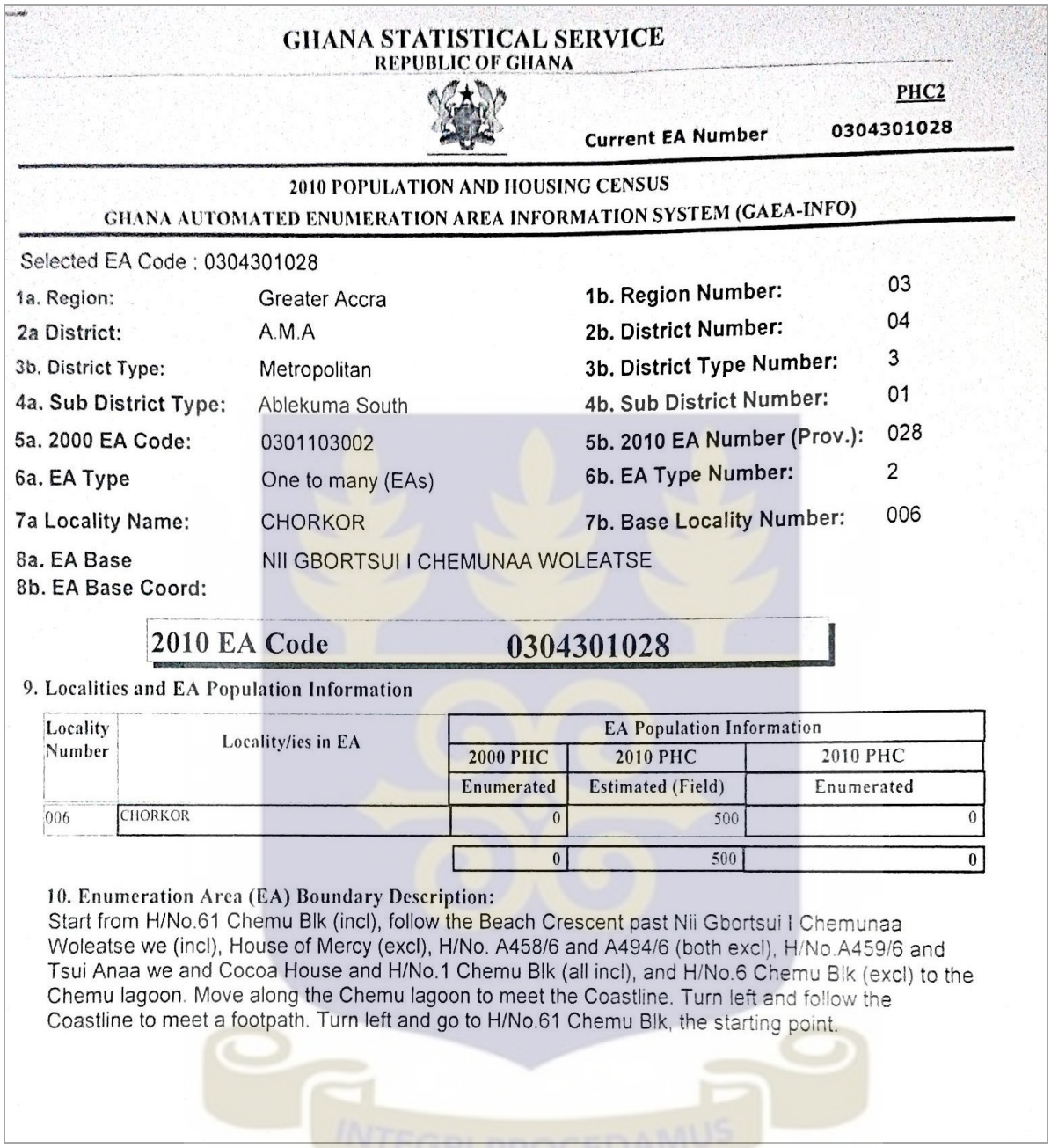
Ironically, this informal way of locating places and navigating the city does not appear to be the preserve of the local/ private institutions and individuals alone.

Even official sources are compelled to resort to adopting the same approach in everyday activities. The Ghana Statistical Service (GSS), the official government agency responsible for conducting nation census and other public surveys adopt similar strategy in demarcating its enumeration areas (EA) (see Plate 4.2). EA's are primary sampling units for which population and household data are available. Thus, from the plate below (Plate 4.2), defining Chorkor, by GSS, the description goes

"*Start from H/No.61 Chemu Blk (incl), follow the Beach Crescent past Nii Gbortsui I Chemunaa Woleatse we (incl), House of Mercy (excl), H/No. A456/6 and A494/6 (both excl), H/No.A459/6 and TsuiAnaa we and Cocoa House and H/No.1 ChemuBlk (all incl), and H/No.6 ChemuBlk (excl) to the Chemu lagoon. Move along the Chemu lagoon to meet the Coastline. Turn left and follow the Coastline to meet a footpath. Turn left and go to H/No.61 ChemuBlk, the starting point*"

Clearly, such document has no future and the validity of the demarcated EA, are threatened particularly within the fast changing urban landscape. Once the used landmarks, which forms the boundaries disappear, the EA is rendered useless.

Plate 4.2: Sample of GSS ennumeration area description sheet



GHANA STATISTICAL SERVICE
REPUBLIC OF GHANA

PHC2

Current EA Number 0304301028

2010 POPULATION AND HOUSING CENSUS
GHANA AUTOMATED ENUMERATION AREA INFORMATION SYSTEM (GAEA-INFO)

Selected EA Code : 0304301028

1a. Region:	Greater Accra	1b. Region Number:	03
2a District:	A.M.A	2b. District Number:	04
3b. District Type:	Metropolitan	3b. District Type Number:	3
4a. Sub District Type:	Ablekuma South	4b. Sub District Number:	01
5a. 2000 EA Code:	0301103002	5b. 2010 EA Number (Prov.):	028
6a. EA Type	One to many (EAs)	6b. EA Type Number:	2
7a Locality Name:	CHORKOR	7b. Base Locality Number:	006
8a. EA Base 8b. EA Base Coord:	NII GBORTSUI I CHEMUNAA WOLEATSE		

2010 EA Code 0304301028

9. Localities and EA Population Information

Locality Number	Locality/ies in EA	EA Population Information		
		2000 PHC	2010 PHC	2010 PHC
		Enumerated	Estimated (Field)	Enumerated
006	CHORKOR	0	500	0
		0	500	0

10. Enumeration Area (EA) Boundary Description:
Start from H/No.61 Chemu Blk (incl), follow the Beach Crescent past Nii Gbortsui I Chemunaa Woleatse we (incl), House of Mercy (excl), H/No. A458/6 and A494/6 (both excl), H/No.A459/6 and Tsui Anaa we and Cocoa House and H/No.1 Chemu Blk (all incl), and H/No.6 Chemu Blk (excl) to the Chemu lagoon. Move along the Chemu lagoon to meet the Coastline. Turn left and follow the Coastline to meet a footpath. Turn left and go to H/No.61 Chemu Blk, the starting point.

4.3 The Efficiency of Courier Services

This section of the study is a rare attempt to explore the perspectives of service providers and beneficiaries on the efficiency of the current level of services, and investigate the demand side's attitude toward the courier services delivered under the current dispensation. This evidence from the study, could serve as a reference for policymakers to understand the initial effects of the policy currently being vigorously piloted in the six metropolitan assemblies, whereby they can regulate and amend some items before extending it to the whole country.

4.3.1 Courier Services and Consumer Preferences

Table 4.4presents the rate at which the respondents use courier services. It must be added, even though the initial concentration of the study was limited to formal courier services, during the data collection stages, it became necessary to include other informal services due to the frequencies they attracted (see Figure 4.7).

From the table, it is quite clear that the use of formal courier services in general is not well entrenched within the Ghanaian economy. The results show that 43 percent of the respondents do not use any formal local courier at all while as many as 55 percent responded negatively to the use of foreign services. Various reasons can account for this development including the fact that the introduction of courier service in the Ghanaian economy itself is at its relatively infant stages with its teething problems. Equally important underlying reason for this development could also be the underdeveloped nature of most cities and towns coupled with the poorly developed street address and house numbering system, which do not augur well for effective and efficient development and running of such services.

Table 4.4: Rate of using the various forms of courier services

Items	Airport Frequency(%)	Kaneshie Frequency(%)	Labadi Frequency(%)	Ministries Frequency(%)	Overall Frequency(%)
LCS					
Monthly	8 (47)	7 (20)	1 (3)	14 (58)	30 (28)
Quarterly	0 (0)	3 (9)	1 (3)	3 (13)	7 (7)
2-3 times a year	2 (12)	4 (11)	3 (10)	3 (13)	12 (11)
Once a year	2 (12)	8 (23)	1 (3)	1 (4)	12 (11)
Not at all	5 (29)	13 (37)	25 (81)	3 (13)	46 (43)
FCS					
Monthly	7 (41)	4 (13)	0 (0)	11 (50)	22 (22)
Quarterly	0 (0)	2 (6)	1 (3)	0 (0)	3 (3)
2-3 times a year	2 (12)	4 (13)	0 (0)	4 (18)	10 (10)
Once a year	2 (12)	4 (13)	2 (7)	2 (9)	10 (10)
Not at all	6 (35)	17 (55)	26 (90)	5 (23)	54 (55)
MTS					
Monthly	4 (25)	11 (29)	4 (13)	5 (25)	24 (23)
Quarterly	2 (13)	4 (11)	2 (6)	4 (20)	12 (11)
2-3 times a year	3 (19)	7 (18)	1 (3)	4 (20)	15 (14)
Once a year	1 (6)	3 (8)	1 (3)	2 (10)	7 (7)
Not at all	6 (38)	13 (34)	23 (74)	5 (25)	47 (45)
MMS					
Monthly	11 (55)	29 (58)	22 (65)	9 (41)	71 (56)
Quarterly	2 (10)	4 (8)	4 (12)	4 (18)	14 (11)
2-3 times a year	1 (5)	6 (12)	3 (9)	1 (5)	11 (9)
Once a year	2 (10)	3 (6)	3 (9)	1 (5)	9 (7)
Not at all	4 (20)	8 (16)	2 (6)	7 (32)	21 (17)
TTPS					
Monthly	4 (25)	4 (12)	6 (18)	6 (30)	20 (19)
Quarterly	1 (6)	5 (15)	2 (6)	4 (20)	12 (12)
2-3 times a year	2 (13)	6 (18)	6 (18)	3 (15)	17 (16)
Once a year	1 (6)	5 (15)	4 (12)	6 (30)	16 (15)
Not at all	8 (50)	14 (41)	16 (47)	1 (5)	39 (38)
IPS					
Monthly	3 (20)	1 (3)	4 (13)	3 (18)	11 (11)
Quarterly	0 (0)	1 (3)	2 (6)	2 (12)	5 (5)
2-3 times a year	1 (7)	4 (11)	5 (16)	0 (0)	10 (10)
Once a year	1 (7)	1 (3)	2 (6)	4 (24)	8 (8)
Not at all	10 (67)	29 (81)	19 (59)	8 (47)	66 (66)

Source: Fieldwork, 2014

NB: **LCS**-Local courier services; **FCS**- Foreign courier services; **MTS**- Money transfer services; **MMS**- Mobile money services; **TTPS**- Transport terminal parcel service; **IPS**- Informal person services

This perhaps explains why the informal services, which have had long tradition, built on trust, social networks and familiarity appear to still predominate the formal systems. From the results 56 percent of the respondents alluded to the use of mobile money transfer (**MMS**) notwithstanding the fact that it remains a relatively very recent addition to the pack. Similarly, the traditional way of send parcels and money via the transport terminal (**TTPS**) and through people (**IPS**) continue to register high frequencies in the data.

Of particular significance is the number of respondents from the highly formal neighbourhoods – Airport and the Ministries – who indicated using the informal courier systems. Significantly, 55 percent and 41 percent of the respondents from Airport and the Ministries respectively stated they use mobile money transfer in delivering parcels and other services. Further, incredibly 25 percent and 30 percent of the respondents from the two neighbourhoods, Airport and the Ministries respectively use transport terminal parcel services. One important inference from this speaks to the trust and confidence participants across the divide – formal and informal - repose in the traditional systems.

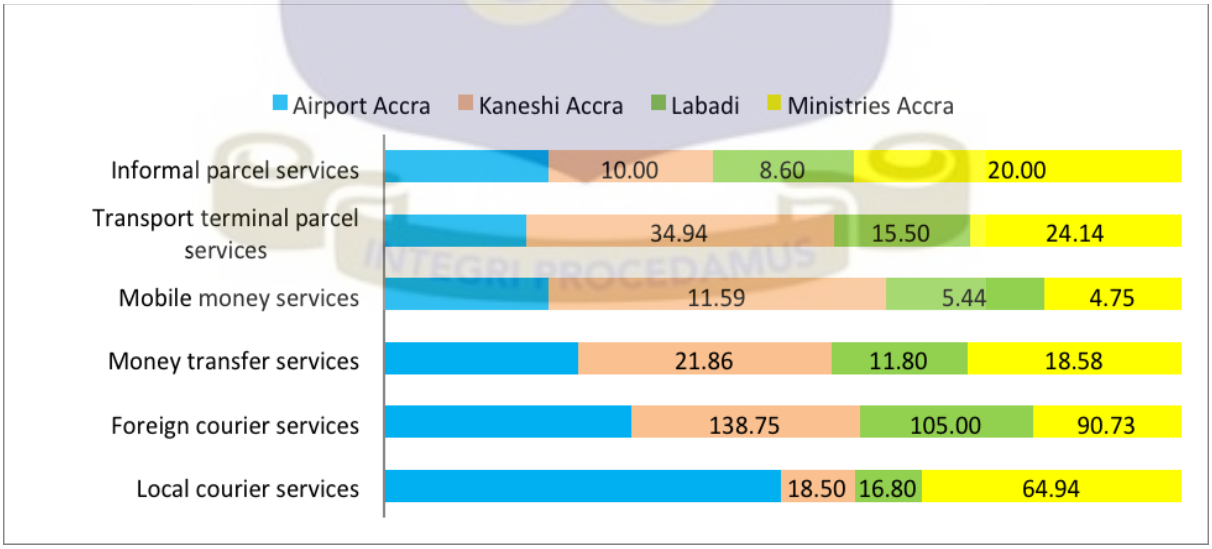


Figure 4.7: Monthly expenditure of the various forms of courier services in Ghana
Source: Fieldwork, 2014

4.3.2 Evaluating Customer Satisfaction

The study also attempted to gauge the level of the respondents' satisfaction of the level of services the courier service providers offer to their respective clients (see Figure 4.8). Admittedly, services are intangible due to them being performances instead of physical objects and therefore, the precise specifications for the performances do not work in the same way as the specifications set in physical goods. In other words, in all probability, services cannot be counted, measured directly or tested ahead for quality assurance. In contrast to physical goods, which operate independent of the environment, performance of services can be subjected to environmental changes, which necessitate adaptations to deliver the service. The intangibility of services makes it difficult for service providers and beneficiaries to evaluate service quality and how well the providers have performed.

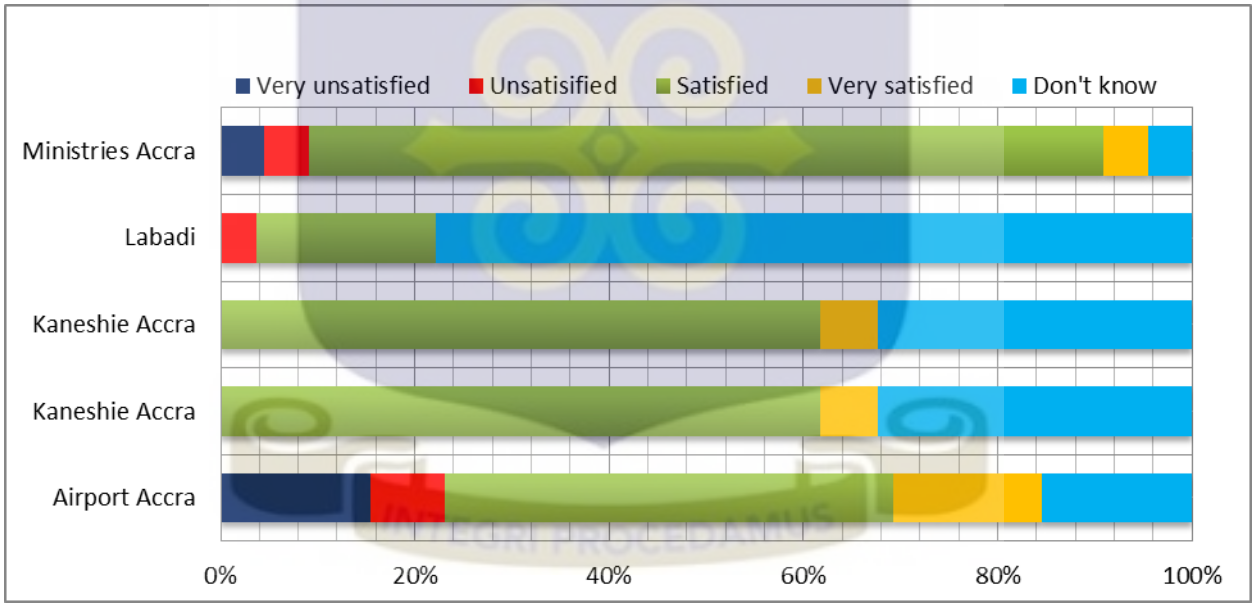


Figure 4.8: Level of satisfaction of local courier services
Source: Fieldwork, 2014

From the results, it is apparent that with the exception of about 78 percent of the respondents from Labadi who were unsure about their level of satisfaction, the rest indicated positive levels of satisfaction. For example, about 90 percent of respondents from the Ministries were at least, satisfied with the level of services at their disposal while 60 percent and 68 percent of

respondents from Airport and Kaneshie respectively indicated they were at least, satisfied with the level of services. Indeed, the case of Labadi is not too unexpected since, in such a low-income poorly planned area, the use of formal courier services had earlier been identified as very limited.

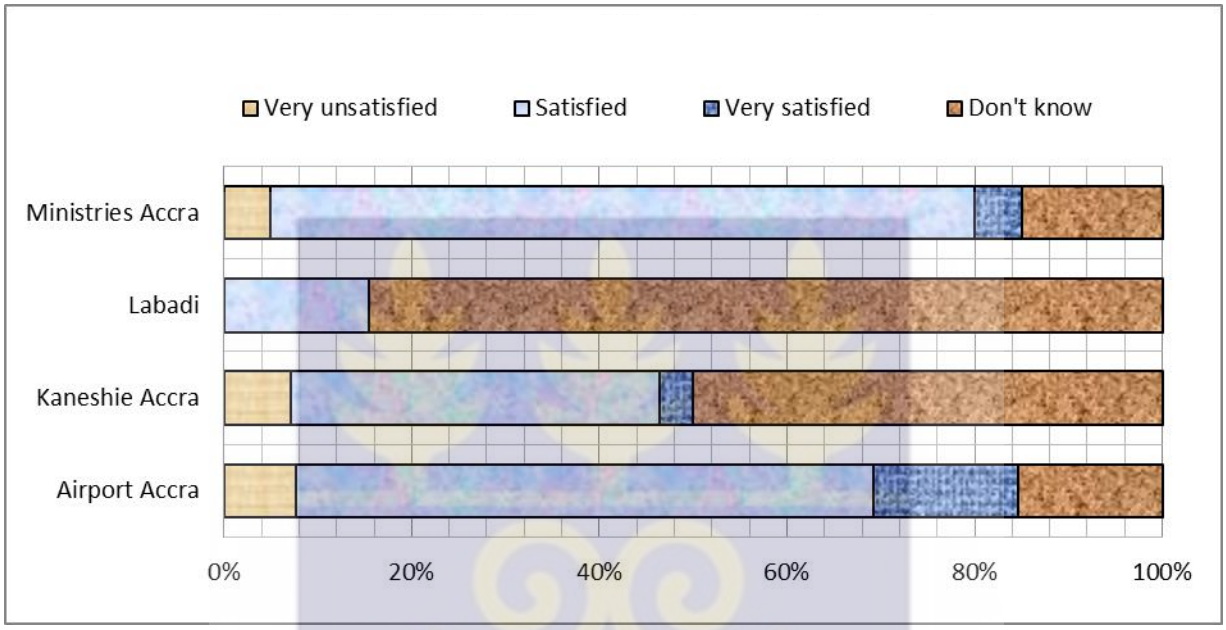


Figure 4.9: Level of satisfaction of foreign courier services
Source: Fieldwork, 2014

Figure 4.9 shows respondents' satisfaction with the foreign oriented courier services, which by all standards appear well equipped in terms of infrastructure, human capital, international exposure and experience as well as financial resources. The results are not different from the previous discussions with Labadi, being the only odd issue as already discussed. What appears different is perhaps the fact that, the respondents in the "Don't Know" category cut across all the categories – low, medium and high-income groups, signifying that there are people within the city (in all the residential areas) who do not use foreign courier services after all.

4.3.3 Respondents Preferred Courier Service Provider

The study engaged with the respondents about which service provider they prefer working with and why. Table 4.5 presents the results of the survey.

Table 4.5: Weighted Score rankings of courier services that needs improvement

Courier services	**Rank 1**	**Rank 2**	**Rank 3**	**Weighted score**	**Overall rank**
Local courier	34	27	29	*175*	*2*
Foreign courier	12	16	15	*89*	*5*
Money transfer	16	33	28	*166*	*4*
Mobile money	55	35	17	*176*	*1*
Transport Terminal Parcel	24	21	35	*171*	*3*
Informal Parcel Service	2	9	15	*65*	*6*

Source: Fieldwork, 2014

In terms of preferences of the respondents for a specific courier services provider, out of a total of 156 respondents, the use of mobile money recorded a weighted score of 176 to place first as respondents' preferred provider for courier services (see Table 4.5). Even though mobile money was the most popular choice, it only outpaced the preference from local courier by a point (175) while **TTPS** and **MTS** scored 171 and 166 respectively. This indicates that customers who experienced the service by mobile money had the highest level of satisfaction in comparison to the other providers.

4.4 Summary

This chapter examined the quality of service or the level of customer satisfaction regarding the current courier services in Accra. Overall, the study shows that the output of the courier service industry is dependent on proper street naming and property addressing system. It is

crucial that these developments go hand in hand with some core physical infrastructure within the urban centres. Key among these is the transport network, particularly road network which is the dominant transport channel in our city. This situation has a direct influence on the proficiency of the courier service. Majority of the populace prefer using landmarks as reference points in giving direction, a state which is born out of the absence of visible name tags of our road network. Additional data gathered show that this has made a considerable number of the sample to rely on other means of package transfer. The preference for emerging technologies such as electronic mailing and mobile money services indicates the desire to find new ways of moving items from one location to the other.

CHAPTER FIVE: IMPLICATIONS FOR URBAN GROWTH AND DEVELOPMENT

5.1 Introduction

This chapter explores the efficiency of emerging models, which courier service operators employ or adopt in the pursuit of their service delivery to achieve sustainability at the city-scale compared to the more traditional national-level environmental policy-making. The chapter also identifies some of the key challenges as well as the benefits that can arise when city authorities and practitioners including service providers work together to develop policies/programs in cities.

5.2 Factors Ensuring Efficient Courier Service Delivery.

As indicated in earlier discussions, the literature is replete with success stories about courier service delivery. What is unique about these narratives however is the fact that each of these exhibits distinct features of the developed economies even if there are imitative patterns in some developing economies. Many have indeed queried how the necessary urban transition is evolving in developing economies can develop structures that can conform to internationally acceptable standards in the provision of services in general (UN-Habitat, 2009). In principle, it is generally assumed that the design of infrastructure networks provides many opportunities for decoupling urbanization and economic growth from ecological impacts.

According to Swilling et al, (2013), infrastructure is seen as a sociotechnical system, in which innovations in technical and/or institutional approaches to service provision can help lead to positive development trajectories. Consequently, they identified four broad types of transitions toward sustainable cities particularly within the spectrum of infrastructure provision;- new urban developments as “integrated eco-urbanism”; new urban-networked technologies; reconfiguring cities as “systemic urban transitions,” and retrofitting existing urban networked infrastructure. The ability of the city authorities to device the necessary

structures and institutions in conformity with these transitions will go a long way in determining successful outcomes of the pursuit for sustainable cities.

The challenge remains how the city authorities as the findings in Accra depict can support the development of effective sustainability policies and programs in cities (Zborel et al. 2012).

5.3 Profitability of Courier Services in Accra (Service Efficiency)

The study established that over the years, there's enough evidence indicating the continuous and unparalleled growth of the courier service industry, with many new players emerging alongside the major hitherto international monopolistic companies (DHL, TNT, UPS, Fedex, etc). According to the available secondary data many of these international companies have their origin dating back to the early 1990's. As an industry at the heart of the global world, its viability in meeting existing and emerging corporate needs of a global village is very crucial. This responsibility has however been fortified by the power of innovative technologies in the communication and commerce industries. The study established that in Ghana, courier services in recent times have become a vital need of corporate organizations and institutions. In Accra, a cursory look at the normal daily traffic flow on major streets reveals several courier company motorbikes and vans engaged in routine delivery of packages to clients. Even with the dawn of electronic mailing systems, offices still rely heavily on traditional mailing systems which the industry is engaged in. Cooperate bodies and state institution's preference for hardcopy mails are still at high levels since this is recognised more formal than electronic copies.

5.3.1. Average Monthly Deliveries of Selected Courier Service Companies

The average deliveries of respondents in the courier industry gives a significant reflection of the patronage of courier services in general in the country as well as unraveling the dominant players in the industry within the particular period. In this regard, average monthly deliveries

for respondent companies were ascertained. Figure 5.1below outlines the average monthly deliveries per each courier company in the survey.

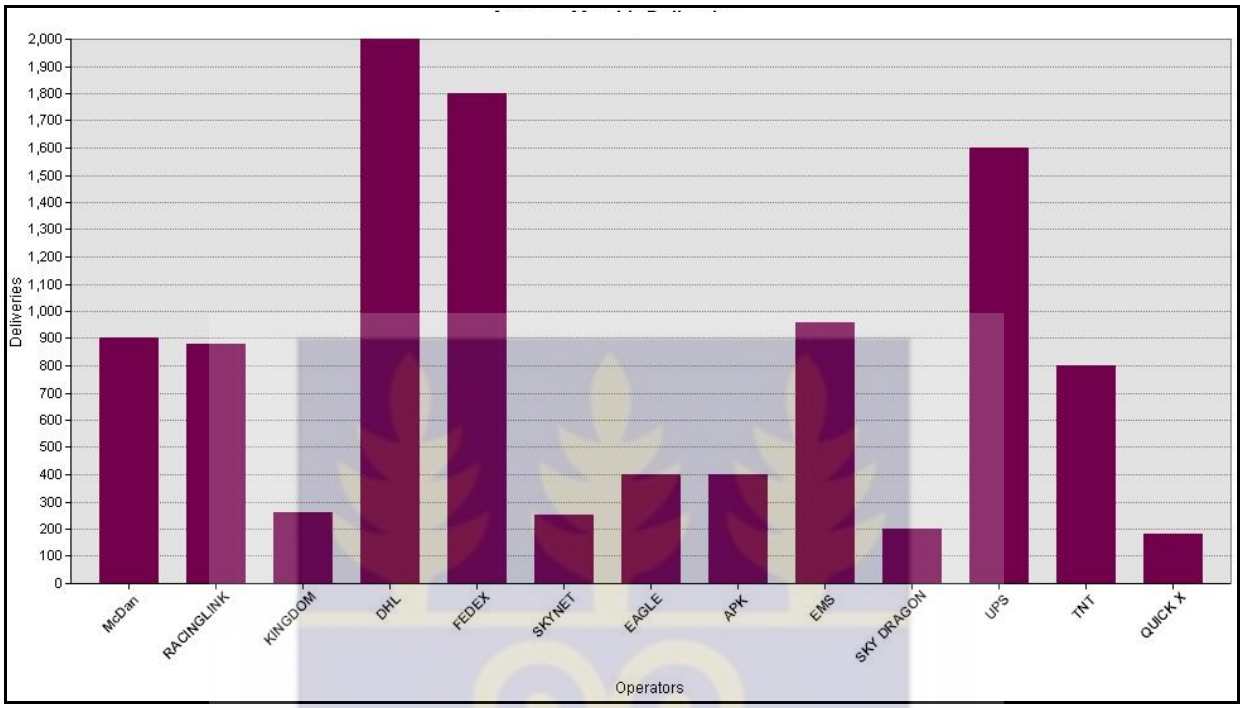


Figure 5.1: Showing Average Monthly Deliveries of Courier Companies
Source: Fieldwork, 2014

The monthly average delivery pattern observed (see Figure 5.2) in the survey clearly demonstrates the dominant players in the courier industry in Ghana. From the trend observed a heightened competition exist at the top between DHL, UPS, FEDEX and EMS in the industry. This localized competition in Ghana is synonymous the global dominance of these major players at the international front of the courier industry. The dominance could be a result of the fact that all these major players existed for several decades before their relatively recent counterparts – Eagles, McDan, Quick X, APK, Kingdom and Skynet.

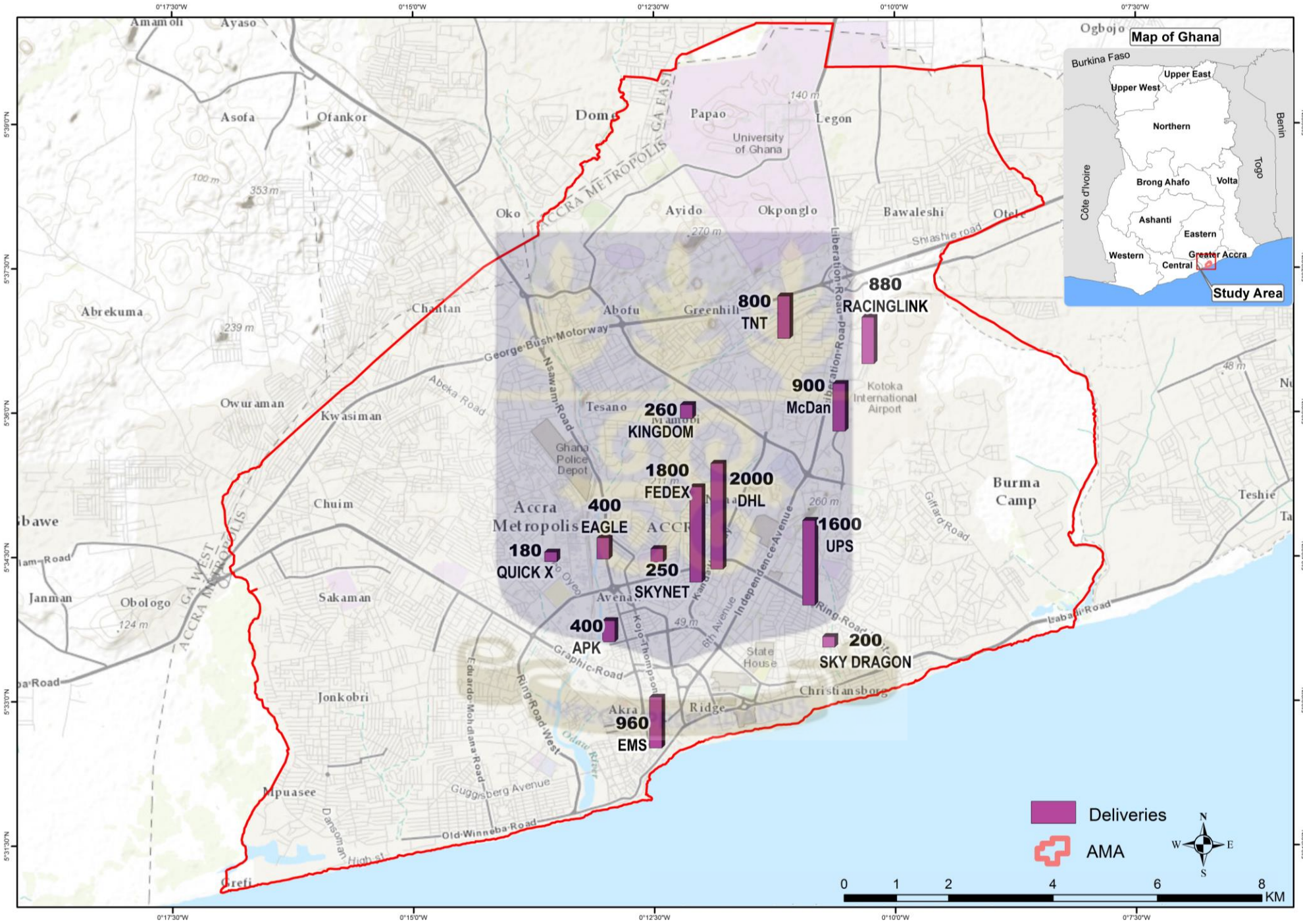


Figure 5.2: Average Monthly Deliveries of Courier Companies

Source: Fieldwork, 2014

5.3.2. Peak Durations in the Courier Business in Accra

Understanding the peak periods in the courier industry is an important indicator of the nature of the industry in the country. In the survey, the daily peak period in operation was between 8am and 3pm which ties in with the normal working hours of most business organizations. All respondent companies indicated that they do not operate at night except on exceptional cases of emergency, with insecurity as the major reason. The seasonality of the industry is however not unique for all the companies. It was observed that, companies who specialized in light weighted parcel delivery such as EMS and APK indicated a peak period during major festivities as many people across the world exchange gifts during such festive times especially Christmas. To other respondent companies in the logistics trade, including MacDan and SkyDragon, seasonality is influenced by the nature of the national economy as whether businesses are thriving or otherwise.

5.4 Major Challenges Faced by Operators

Secured delivery and customer satisfaction are ultimate goals of courier providers which propels them into seeking innovative and time-effective ways of getting packages to their owners. As a result, evolving new ways of ensuring secured and time responsive delivery has formed a major point of competition among courier service providers lately. Despite the improvement in both transport and communication technology in Ghana over the years, the courier service delivery process is still fraught with major challenges. Figure 5.3 below outlines the key challenges confronting courier service providers in package delivery. Notwithstanding their best efforts to become accustomed to peculiar characteristics and socioeconomic dynamics in the city of Accra, the courier operators are encumbered with some challenges that hinder their operational efficiency. Some of these challenges are due to issues which they do not have any control over. Others have to do with matters that fall

within their mandate to adjust to improve their overall operations. Among these challenges are no visible street address or house number sign post, poor directions given by client, non-availability of contact numbers given poor mobile reception, accidents and other dangers, and lack of dispatch equipment.

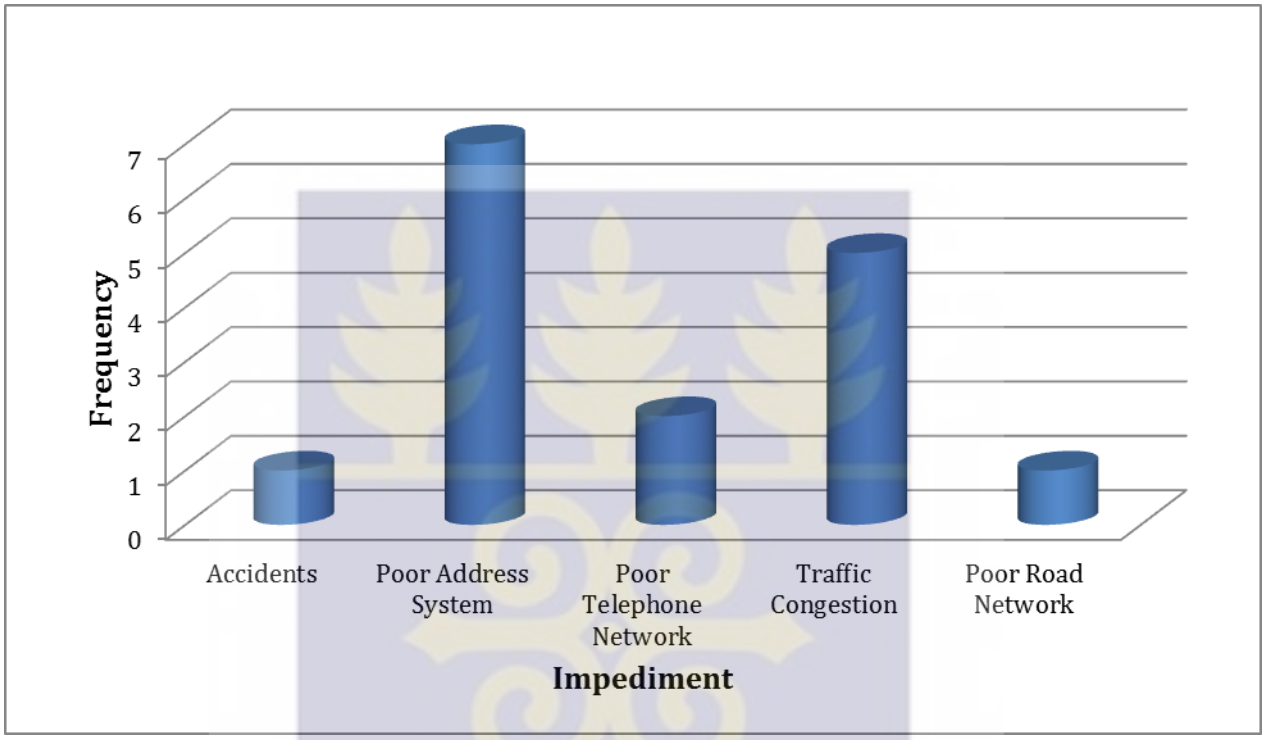


Figure 5.3: Major challenges to operator
Source: Fieldwork, 2014

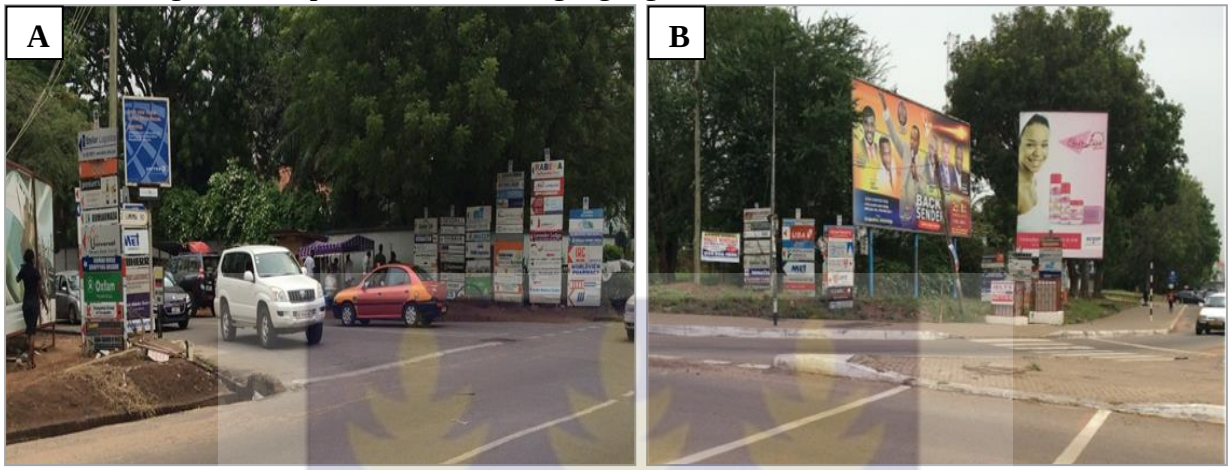
The key setbacks observed across board by the respondent companies were the poor address systems of localities and the traffic congestion.

5.4.1 No visible street address or house number

It is common to find yourself in a community within the city where you have to ask for assistance to find your way. This situation is often recounted by visitors to most part of the city. There are many communities in the city where street name signs do not exist. There are few places where these sign post can be spotted. However, the few that do exist are crowded

by other advertising signs of different sizes and shapes (see Plate 5.1). This is often the case at intersections and junctions along major roads in the city.

Plate 5.1: Sign boards, post and advertising signage



Source: Fieldwork, 2014

These signs are crowded at intersections and junctions. A cluster of these, pollute the scenery. Such situations confuse the visitor the more as drivers are distracted in their attempts to read any for directions. Each firm takes matters into their own hands by posting their directional signs along the road to direct clients to their offices

The street name sign post are not visible at such locations. Though in the high income communities, one can sight some of these signs. They are mostly old street names signs (see Plate 5.2: A) which sometimes are different from others new ones (see Plate 5.2:B) by colour codes. Although street names are more visible in these communities than the others, not all streets have visible signs at either the start or end of the street. In the middle income communities, it is less visible. They are often sighted along main arteries particularly at high traffic junctions where they are obscured by other sign boards (see Plate 5.2). These communities do have some portion of their roads unpaved and untarred. Such roads do not have visible street name post at either ends. In the low income communities, some of these few street name post are obstructed by temporary structures such as kiosks, roofs of buildings and in some cases branches of trees nearby. Few of these posts are also no longer visible because they are never replaced after they are knocked down by vehicles. The city authority has noted with concern that some post are deliberately taken down by scrap dealers.

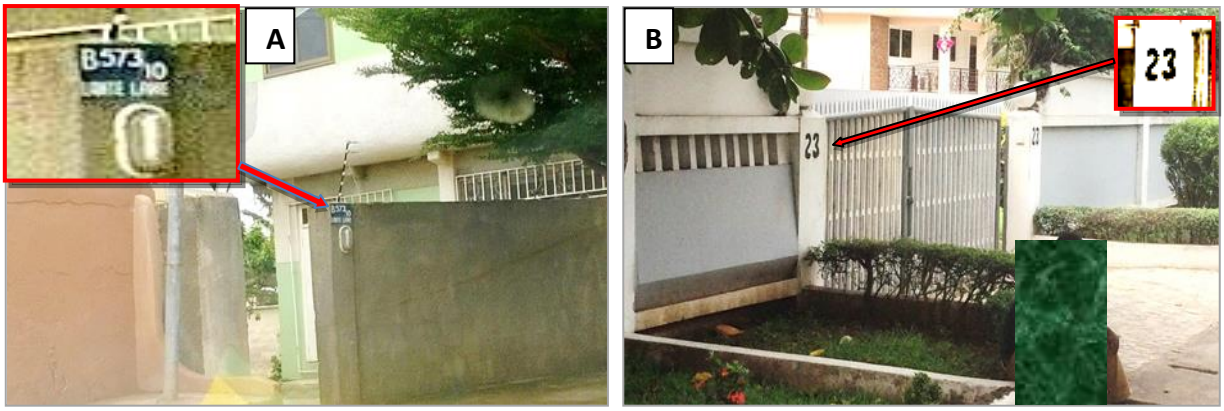
Plate 5.2: Old street name post crowed by other signage and structures

Source: Fieldwork, 2014

The remaining visible posts with street names are all located along the major road which sometimes points to roads that are either narrowed into a walking ally by house extensions or other makeshift structures. These situation and others make residents unfamiliar with street names. Often residents may refer to the streets either by a prominent structure or a particular activity along the streets. Such names are not formal names that a visitor would know until he/she interacts with local people. This situation makes the delivery operator's job of locating client extremely difficult.

The situation is worse with property number signs. Similarly, the most visible and consistent property number signs occur in the high income neighbourhood. The signs are seen on the main entrance. However, these signs are not of same sizes and colour. There are white numbers on a blue background, black numbers on a white background and others black numbers written on the entrance of the property. In the middle income communities, there appears to be different numbering schemes existing. There is the numbering scheme by Town and Country Planning in the form of an alphanumeric numbering (e.g. B 573/10 Plate 5.3:A below) and also single numbering scheme like that of the high income communities (single number (23) by the local authority, plate 5.3:B).

Plate 5.3: House number sign at entrance of building



Source: Fieldwork, 2014

In communities where property boundaries are not clearly define by fenced walls or permanent structure, numbering signs are not visible here. This is the case in most part of the low income communities where there are multiple structures on not so clear parcels of land. The operators have a difficult task of finding clients in such environment where many parts of the city do not have visible street name and property number signs. This is one of the major challenges to the operators.

5.4.2 Poor directions given by client

From the above mentioned it is evident that the situation of very limited visible street names and property number signs has led many to find different ways and means to navigate through the city. Standard referencing has given way to subjective means of directions, often created out of years of interaction within the community. This coupled with the residents lack of regular use of the few street names in their daily activities makes it difficult for them to give out there locational address properly. It is not uncommon to use landmarks in showing others the way within the city. This is a major setback because most of the landmarks used are temporal structure such as kiosk, vending tables or frequent activities that dominate the scene. This is difficult to follow because these landmarks are not easily noticeable to the courier operators who are not native of that community. As part of the directions given, the

operator is often directed to "*ask anyone around*" at such landmarks for further directions. The delivery man has to spend a longer time asking for assistance from "*anyone around"*. Such assistance may lead them in circles because of the subjective nature of how each person perceives his community. Operators lose time and leads to some items never reaching their destination.

Operators also complain of some clients deliberately using wrong address for their packages. However, this is often where the content of the package are either illegal or documents covering the items are fake. This causes the operator to spend more time in identifying the true destination and investigating the matter further.

5.4.3 Poor reception/No available contact number given

In finding ways to the aforementioned challenges, operators are becoming increasingly reliant on contact numbers provided by clients in the delivery of packages. With the use of contact numbers, operators are reducing the number of undeliverable items due to insufficient addresses provided. Operators do call clients for their location before setting off from their premise. They often call again when they are within the community. The call conversation may take long and in some cases the conversation on phone never ends until the recipient is located. This adaptive means of ensuring packages reach their destination comes at a cost. Because the phone calls are important for directions, the operator is spending more to be able to deliver packages. This cost element pushes the operational cost much higher. Also where there is poor telephone reception, the operator finds it difficult to communicate and deliver items. Contacts may sometimes not respond immediately to calls thus the operator may have to delivery item separately which is more expensive to do.

5.4.4 Accidents and other dangers

From the fieldwork, it is known that motorcycles dominate in the vehicle fleet used by the operators. This is because the motorcycles move quicker and are not obstructed by heavy traffic as in the case of cars, mini vans and trucks. Another reason is that, delivery of small items such as letters and documents and packages that fit in their buckets constitute more than 70% of the items operators delivery. This makes them the preferred choice for all of the operators. Motorcycling is said to be a dangerous transport means because they often maneuver between cars and some riders do not follow traffic regulations. They are seen driving on sidewalks or shoulders of the road when there is heavy traffic congestion. They are often pushed down when they collide with pedestrians, other vehicles or other obstacles such as potholes, pillars and side road barriers. Others are knocked by cars which do not easily notice them when they are maneuvering between other vehicles on the roads. Some are easily knocked down and killed when they cross red lights.

Since their vehicles are marked they are often easy targets of robbery. They are known to carry high value cargo so becomes target for robbers. This has forced operators to work only during the daytime where they are offered some degree of protection as compared to the night. Sometimes clients are called to pick up their packages at their offices when the location to be delivered is considered unsafe either due to crime rate, past bad experience or far from a known community.

5.4.5 Need for experienced drivers

The situation of the mentioned problems above leads the operators with little option but to rely on drivers with deep knowledge of locations in the city. Drivers who have not worked in the city for many years or reside in other places outside the city seldom land jobs with courier operators. Operators prefer drivers who have worked for many years in the city or have

stayed in the city for longer periods. Such persons are likely to be very familiar with the city terrain. Knowing different parts of the community seems to be an essential requisite for the position as driver. This helps the operator to reduce long periods of searching for clients and helps reduce delivery times thereby cutting down cost of calling clients for long periods asking for directions and cutting down on fuel cost. Finding drivers with good qualifications coupled with deep knowledge is not easy to come by. For the local operators, when they do find such drivers, they hardly stay for long. They are attracted by the foreign and much bigger operators who most of the times pay better than the local operator. The situation is not so different for the bigger and operators of the multinational companies. Their drivers do also move on to other driving positions considered to offer better conditions of services. All these means the operator must keep training new recruits frequently which means dire resources must be spent here.

5.4.6 Lack of dispatch equipment

Though most of the operators are operating without much sophistication as their counterparts in the more advance countries do, some much needed physical infrastructure are not available to them. The local operators do not use electronic mobile signature capture devices. This device helps to quickly update the office that an item has been delivered. Dispatch officers have to let client sign papers which he returns to the office after his daily delivery is completed. This means the delivery process can only be considered complete when the dispatch returns such signed documents to the office and their supervisors examines the sheets. All operators interviewed do not use communications devices that are used to give guided directions from the control centres as is the case in some advance countries. Dispatch officers on motorcycles are not adequately equipped with protective gear. The only protective equipment they often use is the helmet. Some interviewed dispatch office see the need to have knee, elbow and back pads to give them good protection.

5.5 Losses in Package Delivery

According to respondents, the delivery process is occasionally saddled with losses mainly from handling/haulage, accidents causing damaging to packages, robbery and theft. In the survey, all respondent companies noted to have incurred some losses along the delivery line. Below (see Figure 5.4) is a figure showing the average proportions of safe deliveries to the losses occasioned in the delivery process among all responding companies.

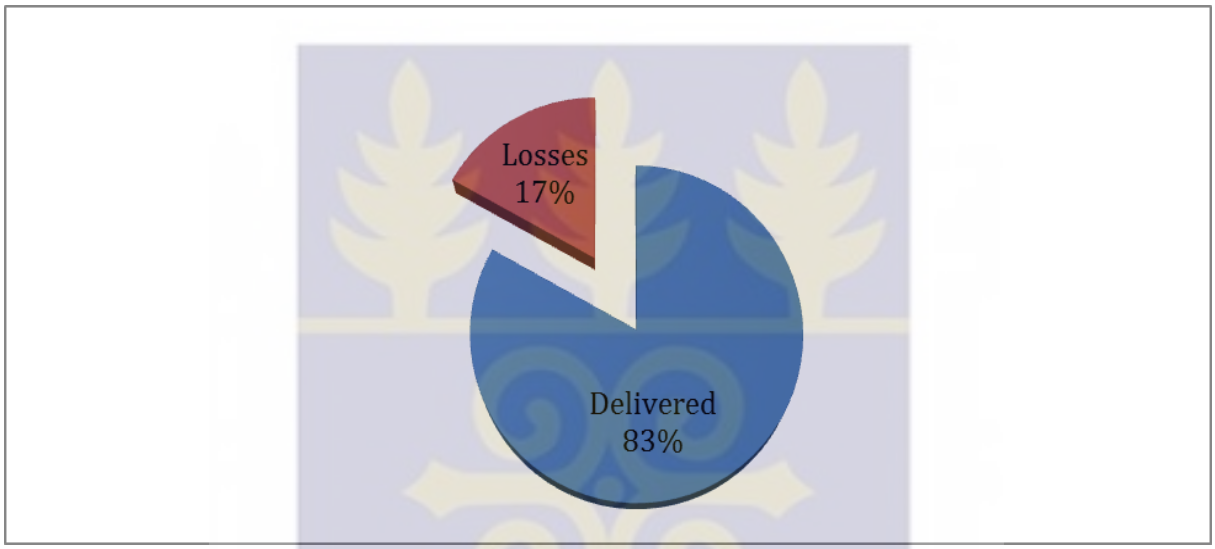


Figure 5.4: Average proportion of secured deliveries to losses
Source: Fieldwork, 2014

On the average, losses in the delivery process is minimal with the average percentage of losses recorded among all respondent companies been 17 percent. A significant contribution to the loss rate is observed among the companies in the logistics industry. Whiles small package dealers such as EMS and APK recorded maximum losses of 5percent, logistics dealers especially Skydragon, Skynet, and UPS recorded major losses to the tune of a maximum of 20percent. This high loss rate could be a result of the bulky nature of goods that are involved in logistic haulage.

5.6 Means of transport (Fleet Mixture)

The hallmark of the courier service industry is the prompt and secured transfer of packages from the originating location to its final destination per the request of a client. This makes them the preferred means of unaccompanied items by a wide variety of people. Key to this industry is the transportation infrastructure. The role of transport system and its associated features cannot be under-emphasized here. The mode of transport, the channel and drivers play a crucial role in ensuring that the express delivery service remains true to its name and keep customers satisfied at all times. From the sampled operators, it was realised that all operators relied on road transport as the channel of transport. It was also noted that there were three main transport modes. These are motorcycles (see Plate 5.4), salon cars and vans/trucks (see Plate 5.5). They are the main vehicles used by the operators within the study area. Figure 5.5 shows the preferred vehicle type used by operators. Operators' choice for motorcycles is a result of time and nature of packages they often transport. With an average size of 45 litres, the tail box of the motorcycle (Plate 5.4) can transport small packages and letters. Also the motorcycles save time, one of the delivery men claim that "*motor makes you do the job quickly and there's no traffic*". The motorcycles cuts the travel times significantly since it is usually not held up in traffic like the vans and cars.

Plate 5.4: Motorist enroute to delivery

Source: Fieldwork, 2014

These are some of the motorcycles used by the local operators. This is the preferred delivery vehicle due to its relatively low cost and maintenance. They are seen as an efficient transport for the operators since it does not contribute much to the overhead cost. Bigger packages are delivered in private vehicles of staff when the need arises

Another reason for the choice of vehicles the operators revealed is capital. With their financial strength, the international companies are able to invest in a wider fleet mixture than the local operator. For this reason the international operators have more vans, trucks and cars than their local counterparts. The local operators use of trucks or vans is limited. It is used to haul packages from ports to their offices and the rear occasion of delivering heavy and large parcels. They use the motors most of the times to deliver items to the doors of clients. It is common for the international operators to deliver items with vans and cars even if it's a single item. This gives them an advantage over the counterparts. Reducing overhead cost by using motorcycles is seen as a major point for the local operator so as to stay in business.

Plate 5.5: Vehicles used mostly by foreign operators

Source: Fieldwork, 2014

Branded vehicle and mini truck of DHL Ghana and UPS Ghana. With their financial capacity, the foreign operators have wide variety of vehicles that are used in the delivery of items. They have vehicles to transport large volumes of load to any point of interest. They also have motorcycles which are ideal for delivery of light weight items.

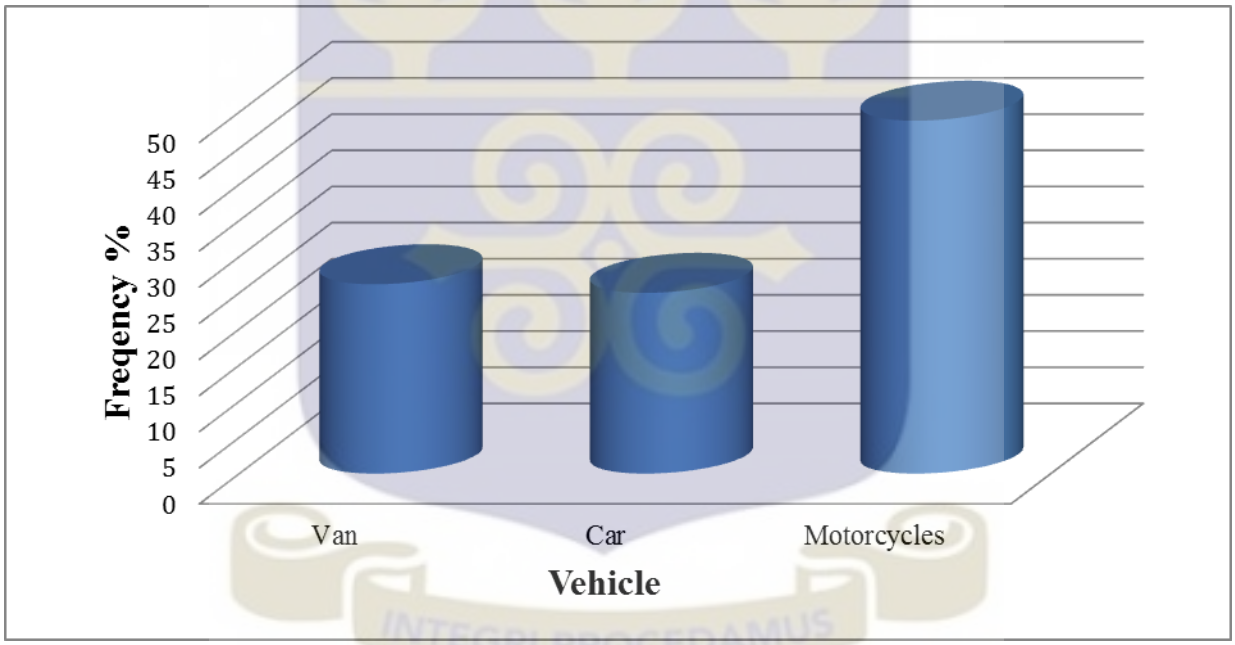


Figure 5.5: Preferred means of transportation by courier operators
Source: Fieldwork, 2014

5.7 Staffing, Operational Strength and Overhead Cost

The success of any company can be attributed partly to the nature and type of staff working in that company. Operators of courier services sampled for this study show two striking organogram types. The sample varied in terms of structure and make up. The international operators had clearly defined roles and staff, which are mainly recruited through a rigorous

policy. Staffs are uniformly dressed in some departments. There are cooperate upgrade programs which are necessary for staff during the course of the year. Many departments are replicated in different branches and there is a head office, which is located in Accra, the capital. Their staffing numbers run from 60 to more than 200 men and women. This requires a huge investment to keep the company running. Offices are equipped with more than basic office equipment (computers, printers, photocopies, etc.). Although operators were not willing to share specific numbers concerning operational details, it was obvious that considering their staff numbers and capital investments that could be readily verifiable (office buildings size, their location, branded vehicles, and other equipment), huge capital needed to run the operations. Staffs receive needed training required in working in that industry. There are in-house training sessions for new recruits at the expense of the employer.

The situation is different with most of the local operators. EMS being the national courier operator has a structure similar to the foreign owned operators. It has the highest staff numbers considering its nationwide coverage. The other operators are small business setup with "one man" departments. It is clear to identify the head doubling as the owner of the company, being supported by an administrator, an accountant and the delivery officers. Their numbers hardly exceed 15. All these are working in a single building with about four separate offices. There are limited capital investments compared to their foreign owned companies. There are decent and bare minimum office equipment and have only one office/location within the city. They rely heavily on motors which forms close to 85% of their delivery vehicles. Staff may be relatives or close relations. There are no series of recruitment stages as it is in the other operators. Organized staff upgrading is rare or non-exist here. They are trained on the job by senior colleagues who are already in the job. All these help them to cut down on operational overheads.

For the desired growth potential to be realised, the local operators need to adapt at a much more improved rate. The growth of the industry has the potential to increase the number of employees within the sector whiles ensuring the efficient movement of packages within the city. When this is achieved, a more decent urban environment will be created for other goods and services to thrive. There will be the release of resources to be redirected at other sectors of the economy. Businesses and individuals would not have to wait long periods to receive items. Physical journeys to shops may not be necessary if one can reliably depend on the expedited service to delivery items to his or her doorsteps.

5.8 Summary

Generally, the courier industry in Accra has become an important network for both corporate and state institutions. It forms the fabric of a complex system of communication and exchanges both locally and internationally. In spite of the fact that history of the industry is much younger than in the advanced countries, it has played a major role in facilitating interaction in Ghana. As an industry whose advancement is greatly dependent on overall economic growth, its holds a future of transformation as Ghana advances through a middle-income status. However, the major difficulties militating against the progress of the industry is the advancement of existing operational methods in order to cover more areas, even the poorly planned localities in major cities in the country. As mentioned above, the industry needs to work to minimize the challenges within its operations to stay afloat and advance the development of the city and country at large.

CHAPTER SIX: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The purpose of this final chapter is to present the summary of the study and offer some recommendations emanating from the findings as possible ways to enhance transfer of packages in Accra and aid development. The infrastructure for movement of goods and services by courier services world over is provided as a matter of necessity to enhance urban mobility. This is intimately linked with economic development based on the maxim that enhanced urban information systems invariably provide the bases for improved urban services, transportation, spatial interactions and significantly promote urban identification for improved mobility of items from location to location and ultimately increase productivity within the city and the country as a whole.

6.2 Summary and findings

This study has highlighted some salient issues surrounding the courier delivery service in the area of the study. These shall be discussed in the following sections.

6.2.1 Local Government Planning and Emerging New Business Areas for Courier Service

Within the past few decades, successive governments have made attempts at improving the decentralisation pursuit which the nation has adopted since the late 1980's. In the bid to strengthen these local assemblies, it has become increasingly clear that development decisions must be localised according to national objectives. In order to achieve this objective, assemblies need the requisite financial resources and prudent national policies tailored to meet their localised needs. Key among the adopted strategies is the development of the national policy document on street naming and property numbering systems. The purpose of this policy initiative was to enable assemblies identify their jurisdiction potential by knowing what exist in their territory among other reasons. By this manual, assemblies

have been given the mandate and the guidelines to develop and implement functional settlement identification system among other things to assist in mobilising internally generated revenue within the assembly for its functions. The ministry of Local Government and Rural Development's manual on Street Naming and Property Numbering which was developed in 2010, is assisting assemblies implement the street and property addressing system. This manual should go a long way in aiding local authorities in planning and zoning their jurisdiction.

Improved spatial planning which includes integration of structures and economic activities will create the enabling environment for transforming our localities. This state of well-planned environment seems to be lacking in the study area. The core business areas for courier services as seen in Figure 3.6 (Chapter 3) are new emerging business areas. The activities which tend to attract the services of courier operators are more concentrated in high-income residential areas such as Airport residential, Ridge, Roman Ridge and Labone. All these areas lie outside the well-known CDB of Accra (south of the Ring Road), thus spreading commercial activities in the city in an unplanned pattern.

6.2.2 Locating Points of Interest within the City

The task of moving items from place to place in the city is a daily affair. In well-planned urban cities all over the world, this task is achieved with ease and forms part of the basic enablers for the functioning of the city. This ease of movement is also partly complemented by a legible urban centre with appropriate signs and directional information available at every part of the city. In the study area however, there were few directional aids and navigational signs, making movement from one place to another challenging, and leaving city dwellers and visitors alike to adopt and develop adhoc systems to manoeuver within the city. This situation has arisen owing to some reasons not limited to the following; implementation

delays, fewer signposts, cluster of other advertising boards and posts along the road and preference for the use of only landmarks in giving directions.

6.2.2.1 Implementation of the address systems

The study revealed that, the implementation of the Street Addressing and House Numbering Project has not been successfully completed after a series of pilot implementations in parts of the city of Accra since 2011. This laudable project has taken too long a time to complete and following a presidential directive in 2013, assemblies commenced the implementation of the project. AMA initiated this exercise by first erecting street signpost bearing street names, however till date not all streets within the city have visible street names and name tags. In addition, the placement of property numbers on structures and buildings have also not been completed. In some study localities, properties still bear old identifications by TCPD. These inconsistencies that exist make the effort of using existing addresses unnerving. The few streets that have the street signposts and numbers plastered to the entrance of their building, some are not of the material prescribed by the manual. Per the manual, name tags should be of reflective material that must be visible at all times including night time. When non-reflective materials are used it limits the desired function of the signs as the tags/plagues cannot be read at night. These teething issues contribute to slow the acceptance of this identification system by people who still prefer to use landmarks and local jargons in navigation.

6.2.2.2 The use of landmarks and temporary structures as reference

From fieldworks discussed, it was significant that a majority of the sampled population prefer to use landmarks as reference points in showing directions. Even though Airport residential area has better street network with defined property boundary with more than average street names and house numbers, respondents from the area still prefer using recognisable buildings

and structures to identify points of interest. Therefore other respondents with fewer visible street names have very little chance of deviating from this practice. Our traditional ways of naming places by first settlers or dominant function within a location may account for some of this habit. This situation leaves visitors to the mercy of another's imagination when asking for assistance for directions in the city. Spending longer periods searching for locations to deliver items to the door step of client is a major challenge to delivery men who are aimed at ensuring the reliable and speedy transportation of items from one location to another. Delays, lost items and undelivered items are additional overhead cost that contributes in reducing the efficiency of courier operators sampled.

6.2.2.3 Other sign posts and advertising boards

Another finding of this study is that many of the roads networks are riddled with other signpost and advertising boards. At intersections of roads, one cannot help but notice a variety of signs post either advertising a product or showing directions. The variations in the size and colour confuse the road user especially the driver in a moving vehicle and are not in line with the aesthetics of the city. The situation is worsened on major roads and as one gets closer to the city centre. This uncontrolled siting of boards and post pose a danger to the road user as when not careful, could disrupt one's attention and lead to vehicular accident. They are not only posing a visual nuisance but the signs do obstruct and cover roads signs and some street name signs which must guide road users. The local authorities have aided in this confusion as they have approved the siting of these advertisement boards and allowed the illegally sited boards to remain by the roadside.

6.2.3 The role of mobile telephony

An equally important finding that the study revealed was that, the lack of visible street and property address has compelled operators to find out means by which they can still deliver

items and packages to their clients. The reliance on mobile telephones and it usefulness cannot not be over stated. Operators depend heavily on the contact details of clients and the provision of a phone number of recipients of items by senders is helping to ease the difficulties of locating destination points. Operators now have to call recipients for turn by turn narrative as this is the only strategy to help reduce the number of undelivered items. By this way, they can deliver packages to their destination, though the operator has to bear additional cost for staying on the phone for turn-by-turn directions. Bad network quality is a limiting factor in this new method.

6.2.4 Competing operators

The courier industry in the country has a larger number of local operators as compared with its foreign counterparts. However, according to the PCSRC, the industry is dominated by the few international courier operators doing business in Ghana. DHL, Fedex, UPS have the major market size with over 70% of the courier operations within the city. The local operators with the exception of EMS, are left to share the remaining market size with the other foreign operators. Their financial and investment strength far exceeds that of the local operators. These international operators have multiple brunches and have a far more labour size. With different departments and units working to ensure the smooth operations of the service, they require more investment to maintain staff so as to serve clients better. Thus, they have more vehicles and cars than motorcycles to deliver items within the city and beyond. They guarantee that clients' packages are at all times transported with the vehicles as compared to the locals who occasionally have to reliable on public transport. Local operators must struggle to maintain existing clients and therefore, cannot compete fairly with these international operators.

6.3 Recommendations

In view of the findings outlined above and how these relate to the development of the city the following recommendations shall be valuable in arresting the situation. Efforts at addressing existing systems will need a multi-faceted approach and the plan to adopt and implement a functional address system in the capital is more than welcomed by the various stakeholders. Other developing countries (such as Cote d'Ivoire and Nigeria) that have been able to complete this all important project are reaping the associated outcomes of it. It is therefore the hope that, the local authority will make this project its topmost priority in order to see to the successful completion. The Placement of street name post alone is not enough to change the fortunes of the city in making it more user-friendly and easing navigation challenges. The Property numbering phase of the project should also be completed with strict adherence to the guidelines of the addressing manual. This will provide the needed urban information by all service provides and especially, courier service to function more efficiently.

Since a new functional address system will be a new feature within the city, there is the need to create the needed awareness among the city dwellers and visitors alike so as to promote the use of the new address system. Without the awareness, adaptation and appreciation of the systems, people will not comprehend the urgent need for it.

Convincing the masses to use the new address systems is the next stage of the implementation process. Clients and potential clients will then have the confidence and trust that, with his/her address she can be easily reached by those who intend to provide services that originate from an outside location and terminate at another location of interest. This campaign should be championed by the local authorities who are the custodians of the address system with the help of civil societies such as the National Commission for Civic Education (NCCE), PCSRC, utility providers and other religious groupings. This may be in the form adverts in both print and electronic media, community outreach programmes and

flyers. This will ensure that the new addressing system becomes accepted and functional. It should also be made as a requirement for all national, commercial and private forms that will demand street address as this will encourage the use of street address.

Pending the completion new street address system, operators must find innovative ways of doing business. Operator can build address directory of the clients and their surrounding areas to easily locate frequent users of the services. Creating a map database of these clients can cut down significantly the period successive dispatch offices spend in searching for clients. With such local solutions like this, operators will not need to rely on the same dispatch to be delivering to one location all the time. All dispatch can locate existing clients with ease and even other potential clients. This may help build address directory which they could count on and profit from by trading with other industries. Pooling resources together may be a sure way of survival for the smaller operator. With the dominance of international companies, smaller local operators can team up to increase their presence and efforts at creating a niche for themselves.

In view of most operators using more motorcycles than their other vehicles, protection and safety of motorcyclist should be paramount. Management of companies should also provide the necessary safety equipment to reduce bodily harm and accidents that may arise in the course of duty. Educating motorist on road safety frequently will assist in keeping accidents low. With advancement in ICT and mobile technology, operators can take advantage of the availability of these technologies in Ghana. Courier companies can adopt integrated mapping application and services available by creating units within the company to use location base applications and products and take advantage of internet mapping applications that easily assist in determining ones location such as Google Maps, Bing Maps, and location sharing mobile applications such as Whatsapp, Viber and a host of others that are available to non-

smartphones. These technologies work in most parts of the country especially in the cities and are less expensive compared to the cost of delays and other navigation equipment.

6.4 Conclusions

The need for courier services delivery in cities all over the world is seen as a vitally component of broad economic development plans. According to the Oxford Economic Forecasting (2005), courier service operators provide guaranteed, fast, and reliable, on demand, world-wide, integrated, door-to-door movement of shipments which are tracked and controlled throughout the journey. This sector of the economy is considered "Business Class" of cargo services and simplifies and speeds the process of transporting goods. It organises collection usually at the end of the business day, allows the sender access to information on the progress of shipments from pick-up to delivery and provides proof of delivery.

The industry makes a significant direct contribution to the global economy with a world GDP contribution of US$64 billion as of 2003. In 2013, the industry was said to have more than 4.5 million jobs and supported additional jobs for those people connected in the industry such as in the automotive industry building delivery vehicles and in companies supplying IT support services. Such global trends show signs of a lucrative and important industry and when assisted with the requisite environment in Ghana, can contribute significantly to national development.

All the above mentioned growth cannot be achieved without the help and collaborated efforts of the other stakeholders who create the enabling environment to promote economic development. The local authorities have realised the crucial need for urban information systems that can support the desired improvement that is so much needed. The successful implementation of the street naming and property numbering project is a key turning point in our urban and national development planning agenda. A functional street and property

addressing system is important to all sectors of the development agenda which the government and the people as a whole so much desire.

Beyond highlighting the urgent need to facilitate and hasten the implementation of an effective address system in the metropolis, it is hoped that the study will also ultimately contribute to national development efforts. It further envisaged that the addressing system when properly established would provide a framework by which all relevant agencies can apply a systematic and harmonised process to name streets and numbering of properties in a city and will serve as the platform where all address details can be obtained.

6.5 Limitations of the Study

Data availability and quality was a major challenge in this research as most of the data required for the analyses were not readily available. For example, courier operators and companies were not ready to share data on weekly deliveries. Their delivery records were not detailed to reveal type of item delivered and for this reason, no analysis on volume and category of packages were considered in this study. In addition, there was the lack of operational cost data and as a private business firm, operators regarded this information as trade secret and therefore were not willing to publish such information in the public domain. The regulator of the industry, PSCRC which could be another source of data also did not have information in this regard.

In spite of the above mentioned challenges however, most of the limitations were overcome through the use of approximations data which was made available by delivery men and supervisors. Others were arrived at through visual verification of assets that were available. However, their effects were minimised by giving them low weights places on them in the study. Additionally, the data used for the mapping, especially the spatial data, were cross-sectional (one-time) data and therefore did not allow for temporal analysis to be made for a

better understanding. There was no other alternative to the study area to compare delivery scenarios. The makeup and functions within the city could not be found so as to undertake a comparative study to find out how delivery service could fair in a control environment. The effect of this was somehow reduced by the different localities that were selected for the study.

6.6 Suggestions for Future Research

In future research of this kind, it will be helpful to obtain a wide range of higher quality data, particularly regarding delivery. This may be done by carrying out regular visits at different times and seasons to build enough data for more detailed analysis. This will be key in mapping out results of package analysis for the industry in the city. More localised surveys could be carried out to determine the perception of street naming and property numbering to help establish peoples action regarding their changing environment and how this new urban information base data influence identification of people and places in the city.

All these however, will require substantial investment of financial resources as longitudinal study may allow for analysis of the implications for urban development in relation to other urban services as well. It is the hope that when the identification project is completed, future research will look into how the new urban identification will impact on other critical services that depend on it most especially, the courier service industry.

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Appendix

Questionnaire (Household/Institution)

This is an MPhil research work at the Department of Geography and Resource Development, University of Ghana, Legon. The research is about courier service operators within the city. We would greatly appreciate your cooperation in answering this questionnaire and we shall keep your personal answers in strict confidence.

SECTION A. DEMOGRAPHICS

Table1. Please enumerate all people, ages 16 and older, who are members of your household (that is, who currently live in the household). For each of them state age, gender, education, and employment status.

No.	Age	Gender	Relation to head of household	Highest level of education completed	Current employment status	Only if employed: Is she or he registered for social security?
	(1)	(2)	(3)	(4)	(5)	(6)
1	( )	( )	( )	( )	( )	( )
2	( )	( )	( )	( )	( )	( )
3	( )	( )	( )	( )	( )	( )
4	( )	( )	( )	( )	( )	( )
5	( )	( )	( )	( )	( )	( )
6	( )	( )	( )	( )	( )	( )
7	( )	( )	( )	( )	( )	( )
8	( )	( )	( )	( )	( )	( )
9	( )	( )	( )	( )	( )	( )
10	( )	( )	( )	( )	( )	( )
	Completed years	**a**-Male **b**-Female	**a**-Head of household **b**-Spouse **c**-Son/Daughter **d**-Mother/Father **e**-Son-in-law, brother-in-law/daughter-in-law, sister-in-law **f**-Grandson/ Granddaughter **g**-Relative **h**-Other **i**-No answer	**a**-No education **b**-Elementary **c**- JHS **d**- SHS **e**- Tertiary **f**-University **g**-Master's/ PhD **h**-No answer	**a**-Self-employed in farming—livestock and agriculture **b**-Self-employed in own business or professional activity unrelated to farming **c**-Intermittently employed or works from time to time **d**-Permanently employed—state or public sector **e**-Permanently **f**-Unemployed—seeking employment in the past month	**a**-Yes **b**-No **c**-No answer

					g-Unemployed not seeking employment in the past month **h**-Pensioner **i**-Student **j**-Unfit or of limited fitness for work **k**-Other **z**-No answer, refused	

If respondent is employed: (Type of work: …….)

7. Where is your workplace located?

a. In my municipality

*b.*In other municipality; specify: …….

8. What is your average commuting time to work?*Write down number of minutes*: **……**

9. By what means do you commute to work? Please State……

10. How long have you lived/worked in this community? ..……

SECTION B. LOCAL ROADS

(Local roads are all those roads in your neighborhood that your household/institution uses).

11. What is the type of the road that connects your household with other parts of the village/city?

a. Asphalt b. Brick. c. Cement d. Stone/Slab e. Clay

12. What is the distance of the nearest asphalted road from your house/institution?

Write down the number of meters:**…….**

13.What portion of the road that connects your household with the main road is asphalted?

a. 100% b. Two-thirds c. One-half d. One-third e. Less than one-third

14. Has there been any construction of new roads in your neighborhood during the past year?

a. Yes b. No

15. Has there been any repair of old roads in your neighborhoodduring the past year?

a. Yes b. No

16. Has there been any involvement of the community in your neighborhood in the construction or maintenance of local roads?

a. Yes b. No c. Don't know

17. What is the type of involvement of the community*? (Multiple responses possible)*

a.	
b.	
c.	

18. Who maintains roads in your neighborhood/community? *(Multiple responses possible)*

a. Public utility company b. Citizens c. Specialized private company
d.Non-specialized private company e. None f. Don't know

19.Is there incidence of water logging or deterioration of the local roads during heavy rains?

a. Yes b. No

20. What is the frequency of the cleaning of roads in your neighborhood?

a. Daily b. Weekly c. Bimonthly d.Once a month
e. Less than once a month f. Never cleaned g. Don't know

Are you: a. very unsatisfied b. unsatisfied c. satisfied
d. very satisfied e. Don't know/ Without experience
with the following aspects of the services related to local roads?

INTERVIEWER: HELP RESPONDENTS. EXPLAIN HOW TO USE THE SCALE!

		Very unsatisfied	Unsatisfied	Satisfied	Very satisfied	Don't know/ Without experience
21	Road fixing	a	b	c	d	e
22	Cleanliness of roads in your area	a	b	c	d	e
23	Care and action taken during water logging and other problems	a	b	c	d	e
24	Local government responsiveness to complaints	a	b	c	d	e

25. What suggestions do you have for improving the quality of service provided by the municipality/corporation in local roads? *(Multiple responses possible)*

a.	
b.	
c.	

26. What has been the biggest problem regarding the local roads in your neighborhood in the past year? *(Single response)*

a. No problem b. No answer

SECTION C: STREET ADDRESS AND PROPERTY NUMBERING

27. Is there visible house/building number where you stay or work?

a. Yes b. No

28. Are there visible signs of street names in your community?

a. Yes b. No

29. Do you use your street names and house numbers?

a. Yes b. No

30. For what purpose? *Please state*

……
……
……

31. When giving directions to location, what do you prefer?

a. Use landmarks b. Call for turn-by-turn directions c. Ask people around for assistance d. Use street names and building numbers e.Other means*(Please State)*……

32. Are streets and building numbers important to you? (in your movement and activities?)

a. Not important b. Important c. Very important d. Can't be bothered

33. In case you are the landlord/manager, are you willing to pay for the house\building numbering sign?

a. Yes b. No

34. If no, who should pay for the house\building numbering sign?
a. District Assembly b.Someone else c. Ministry of Local Government
e. Other …..……

35. Who should provide names for the streets?
a. Local community members b. Assembly Man\Woman c. Local Chiefs
d. Ministry of Local government e. Private contractors 6 Department of Road

SECTION C. COURIER SERVICE DELIVERY

36. How regularly do you make payments for each of the kinds of services listed below?

		Each month	Once a quarter	2-3 times within a year	Once a year	Do not make payment
i	Local courier	a	b	c	d	e
ii	Foreign courier	a	b	c	d	e
iii	Money transfer	a	b	c	d	e
iv	Mobile money	a	b	c	d	e
v	Transport Terminal Parcel Service	a	b	c	d	e
vi	Informal Parcel Service	a	b	c	d	e

Do you receive notifications and so forth for the kinds of services listed below?

		37. Before Receiving courier		38. After receiving	
		Yes	No	Yes	No
i	Local courier	a	b	a	b
ii	Foreign courier	a	b	a	b
iii	Money transfer	a	b	a	b
iv	Mobile money	a	b	a	b
v	Transport Terminal Parcel Service	a	b	a	b
vi	Informal Parcel Service	a	b	a	b

Please indicate the average amount (per month) that your family/institution spends on courier service?

		39. Amount	40. Amount reasonable?		
			High	Reasonable	Low
i	Local courier		a	b	c
ii	Foreign courier		a	b	c
iii	Money transfer		a	b	c
iv	Mobile money		a	b	c
v	Transport Terminal Parcel Service		a	b	c
vi	Informal Parcel Service		a	b	c

41. To what extent are you satisfied with the courier services delivery in your municipality?
a. Very unsatisfied b. Unsatisfied c. Satisfied d. Very satisfied e. Don't know

		Very unsatisfied	Unsatisfied	Satisfied	Very satisfied	Don't know
i	Local courier	a	b	c	d	e
ii	Foreign courier	a	b	c	d	e
iii	Money transfer	a	b	c	d	e
iv	Mobile money	a	b	c	d	e
v	Transport Terminal Parcel Service	a	b	c	d	e
vi	Informal Parcel Service	a	b	c	d	e

42. Has the quality of courier services improved in the past three years?
a. To large extent b. To small extent c. No change d. Worse e. Don't know

		To large extent	To small extent	No change	Worse	Don't know
i	Local courier	a	b	c	d	e
ii	Foreign courier	a	b	c	d	e
iii	Money transfer	a	b	c	d	e
iv	Mobile money	a	b	c	d	e
v	Transport Terminal Parcel Service	a	b	c	d	e
vi	Informal Parcel Service	a	b	c	d	e

43. In your opinion, what are three main priorities in Accra in terms of improving services delivery? Which of the following courier services deserve to be treated as
a.first priority b. second priority c. third priority?

i	Local courier	
ii	Foreign courier	
iii	Money transfer	

iv	Mobile money	
v	Transport Terminal Parcel Service	
vi	Informal Parcel Service	

44. For problems with the courier services discussed, how do you find out the contact person to complain to? (multipleresponses possible)
    a. District Assembly b. Friend/Relative/Neighbour c. Media e. Service provider
    f.Service Desk at Ministry of Local Government g. No experienceh. Other *(please specify)*:
    ……

45.If you were to have problems with any of the following services, to whom would you turn first and second?
    a. District Assembly b. Friend/Relative/Neighbour c. Media e. Service provider
    f.Service Desk at Ministry of Local Government g. No experienceh. Other *(please specify)*:
    ……

46.Did you or someone within your community lodge a complaint about the problem?
    a. Yes b. No

47.Was the problem attended to?
    a. Yes b. No

48. What were the results of your complaint?
    a. Yes b. No

49. Within what period after your complaint was the problem solved?
    a. Days b. Weeks c. Months

50. Was the problem solved?
    a. Yes b. No

51.What was the reason you did not turn to the relevant body with your complaint?

TABLE H2—Complaining procedure

		Have you had any problem?	Did they complain?	Problem attended?	Results of complaining	Time it took (months)	Problem solved?	Reason no complaint was made
		52	53	54	55	56	57	58
i	Local courier	( )	( )	( )	( )	( )	( )	( )
ii	Foreign courier	( )	( )	( )	( )	( )	( )	( )
iii	Money transfer	( )	( )	( )	( )	( )	( )	( )
iv	Mobile money	( )	( )	( )	( )	( )	( )	( )
v	Transport Terminal Parcel Service	( )	( )	( )	( )	( )	( )	( )
vi	Informal Parcel Service	( )	( )	( )	( )	( )	( )	( )
		a- Yes **b-** No	**a-** Yes **b-** No	**a-** Yes **b-** No	**a**– Decision was made in my favor and was enforced **b**– Decision was made in my favor but was not enforced **c**– Decision was not made in my favor **d**– Complaint was not considered **e**– Other	Write down number of months. **z**– Problem is still not solved	a– Yes b– No	**a**– Did not know whom to address **b**– Tried to use the help of influential persons **c**– It makes no sense/no result will be obtained **d**– Lack of time **e**– Dangerous **f**– Other

Date: _____

Questionnaire (Operators)

This is an academic research on the topic "Street Address System and Service Delivery: The Case of Courier Service Operators in Accra Metropolitan Assembly". You are kindly requested to complete this questionnaire. Information obtained from the questionnaire will only be used for the purpose of this study.

- *Please respond to questions with a tick*
- *Kindly provide details for open questions*
- *Please rank with numbers (1 is the most)*
- *You may skip questions where necessary*

Position:.....Telephone (optional):.....

1. Which areas within the city of Accra do you operate? kindly list and rank (Delivery)
   .....
   .....
   .....
   .....
   .....
   .....
2. Which areaswithin the city of Accra do you find most of your clients? (Pickup)
   .....
   .....
   .....
   .....
   .....
   .....
   .....
3. Which areas do you find the least of your clients? Please rank (within Accra)
   .....
   .....
   .....
   .....
   .....
   .....
4. What accounts for serving some areas more?
   .....
   .....
   .....
   .....
   .....
   .....
   .....
5. Kindly list and rank ways and methods you employ in delivery.
   .....
   .....
   .....
   .....
   .....
   .....
   .....
6. What accounts for lack of service within some areas?
   .....
   .....
   .....
   .....
   .....
7. How do clients locate you to place orders (mode of contact)? By telephone By walk-in Other ……..……
8. How do you locate clients for delivery?
   .....
   .....

9. What are some of the ways and methods used in identifying the delivery point?

.....
.....
.....
.....
.....

10. Do your dispatch office and officers use electronic navigation equipment? if yes, which ones (if no please give reason)

.....
.....
.....
.....
.....

11. What means of identification do you employ in sorting your parcel?

.....
.....
.....
.....

12. If this is mainly based on address, what percentage is not delivered for lack of an identifiable address?

.....
.....

13. Do you depend on street address to delivery items?

☐Yes ☐No

14. Do you have any challenges delivering items? if yes, please indicate

.....
.....
.....
.....
.....

15. What is the proportion of deliverable items to non-deliverable items? based on these 2 groups in percentage

i. Address Issues only …….
ii. Non-address only ……

16. Kindly list the fleet type (fleet mix) your organization use and rank based on frequency of use.

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.....
.....
.....

17. How long does it take to deliver package(s) to area X by vehicle Y?

Area (X)	Vehicle(Y) & Time		
Eg. Dansoman	*Y 1=3hrs*	*Y 2=1hrs*	*Y3=30mins*
Airport Residential			
Ministries			
Labadi			
Kaneshie			
New Town			

18. Which vehicle is often used in the city in terms of proportion? (*Eg. Vehicle 1=20%, vehicle 2=40% vehicle 3=10%…*)

a …….. *d* ……

b …….. *e* ……

c …….. *f* ……

19. How easy are you able to identify addressee in the following areas?

Airport Residential: ☐Easy ☐Difficult ☐Extremely Difficult

Ministries: ☐Easy ☐Difficult ☐Extremely Difficult

Labadi: ☐Easy ☐Difficult ☐Extremely Difficult

Kaneshie: ☐Easy ☐Difficult ☐Extremely Difficult

New Town: ☐Easy ☐Difficult ☐Extremely Difficult

20. How do you locate addressee?

a. ☐ Go direct to given address
b. ☐ Ask people for assistance
c. ☐ Call addressee for turn by turn directions
d. ☐ Try again another day
e. ☐ Return package to office

21. What are the other means aside street address do you depend on to deliver items? kindly comment

.....
.....
.....
.....
.....

22. Kindly list a few communities or areas within the city (Accra) where delivery is

    i. Difficult .....
    ii. Easy .....

23. What account for this situation

    Difficult: .....
    .....
    .....
    Easy: .....
    .....
    .....

24. When are your peak delivery periods of the
    Day? .....
    Year? .....

25. Would you consider night time delivery? Kindly state the reason
    .....
    .....
    .....
    .....
    .....

26. What is your major impediment in delivery items?
    .....
    .....
    .....
    .....

27. What is the average amount (quantity) of parcels delivered within:
    a.Week? .....
    b.Month? .....