UNIVERSITY FOR DEVELOPMENT STUDIES

VEGETABLE MARKETING IN UPPER WEST REGION OF GHANA: A COMPARATIVE ANALYSIS OF URBAN AND SEMI-URBAN COMMUNITIES

BY

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SEPTEMBER, 2018.

DECLARATION

Student

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere:

Candidate's Signature: ..... Date: 15/09/18

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I hereby declare that the preparation and presentation of the thesis was supervised in accordance with the guidelines on supervision of dissertation laid down by the University for Development Studies.

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ABSTRACT

A study was conducted in the Upper West region of Ghana on comparative analysis of vegetable marketing in urban and semi-urban communities. The objectives of the study included (i) investigating and comparing the profit margins for the urban and semi-urban areas, and (ii) identifying the marketing problems being faced by the vegetable marketeers. The "mixed method" design was adopted for the study. Primary and secondary data were used to accomplish the objectives of the study. Wa central market, Fadama market, Wechiau Market, and Dorimon market, were purposefully selected for the study. Probability Proportional to Size (PPS) theory was used to determine the number of marketeers to be taken from each market centre from a marketeers' stratum until a statistically determined sample size was obtained. In all one hundred and ninety-six (196) vegetable marketeers (153 urban marketeers and 43 semi-urban marketeers) were finalised for all four marketing centres. The cost-benefit analysis indicates that both the gross margin profits and net profits per unit order are higher for marketeers in semi-urban areas than they are for marketeers in urban areas. Urban marketeers operate in a more competitive market structure and seek to increase their profits through handling larger volumes of business as opposed to semi-urban marketeers whose instrument to seek higher profits lies in the price. The study indicates that some of the problems the marketeers face are unique and area specific while others are common for every vegetable marketeer in Upper West region. Lack of representation, lack of support services, and lack of appropriate business skills, are among the common problems, while lawlessness and business fluctuation tend to be unique and area specific. In general, marketeers do not make meaningful investment in their business. The women who dominate the business

undertake it purely to supplement the income of husbands and contribute to household food security. Some vegetables are more appealing in certain areas than others and thus earn more. In order for marketeers to make profit, they should select vegetables that give them reasonable profits; they should select vegetables that will give them reasonable returns. In order to have more representative results, future research involving a similar study should be undertaken to cover rural areas or peri-urban areas. There is need for governments to formulate and strengthen the rules regarding vegetable marketing in order to protect the marketeers, and ensure that vegetables are sold under hygienic conditions. Vegetable researchers should extend their studies to aspects of vegetable marketing rather than focus solely on vegetable production. Government should lobby for formulation of some institutional framework through which marketeers could be represented and through which business skills could be enhanced. The researchers need to determine the vegetable consumption per capita. This information could be very useful to policy makers and planners but has never been made available.

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DEDICATION

I dedicate this work to all those working to make this world a better place to live in.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

There is universal recognition that vegetables are important foods and that vegetable production, marketing, and processing are significant contributors to income. Vegetables comprise a large portion of our diet and in most cases the only form of relish for the low income group.

Nutritionally, vegetables can provide widely accessible sources of essential vitamins (particularly vitamin A, vitamin C, niacin, riboflavin, and thiamine), and minerals (such as calcium and iron), as well as supplementary protein and calories. In addition, vegetables provide dietary fiber to improve digestion and health, thereby making them essential for properly balanced diets.

Marketing of vegetables has become increasingly an important source of income for most people in Upper West region of Ghana, (especially women) who can not get employment in the formal sector. Past research indicates that vegetable marketing in Upper West region of Ghana is mostly dominated by women, and hence the likelihood that it is the biggest single employer of women in Upper West region of Ghana today. It is one of the fields that offers employment with less demanding qualifications, and the starting capital required to engage in vegetable marketing is probably lower than for most other agricultural commodities.

Ghana is a country with a great variety of agro-ecological zones that are favorable for horticultural crop production for different markets including export market. In Ghana smallholder farmers produce the majority of vegetables (GSS, 2013).

Vegetable production is becoming an increasingly important activity in the agricultural sector of the country following the development of production through irrigation practices and increased emphases given by the government to small scale commercial farmers (Jema, 2008).

The expansion of irrigation agriculture in different parts of Ghana has enabled smallholders to produce vegetables even in dry season. Through irrigation, farmer's per capital production as well as area under vegetables' coverage has been increasing (MoFA, 2014). These conditions enable smallholders to have surpluses for market. Like most agricultural products, vegetable production exhibits seasonality in supply. This creates excess supply of vegetables to markets within limited time frames which leads to decline of prices (Agricultural Transformation Agency, 2014).

Mendoza (1991) explains the concept of marketing as physical and economic process whereby the goods are transferred from the producer to consumer. Thus, the marketing chain is the path that the goods follow from their source of original production to their ultimate destination for final use. Many marketing channels may exist as there are separate sources and destinations for each item. Furthermore, the author suggested that a specific investigation must be under taken on each case where the objective in every instant is to trace the movement (purchase and sale) of the product from the source of supply to its point of final use.

Smallholder vegetable farms are based on low input–low output production systems. The use of improved seeds and planting material of high yielding varieties and other inputs such as fertilizer and plant protection materials are not normally available in the smallholder sector. Technical training and extension services on improved crop husbandry techniques are also not normally available. As a result, average productivity levels are low in the small scale farming sector (EHDA, 2011). Besides, the productivity of crops is very low as compared to the potential yield obtained in the research centres and on farmers' fields that are purposely for technology verification studies. For instance, the productivity of onion and tomato was about 9,000 and 7,000 kilograms per hectare respectively for smallholders and, 400,000 and 350,000 kilograms per hectare respectively at research centres (Dawit *et al,* 2004).

A market system consists of the interactions of all the component parts and processes in the society because the only purpose of an economic system is to serve the needs of the people. The market system is one way of organizing the economy to decide what, how, and for whom goods and services are produced. A strong competitive market system is necessary for a country's social and economic welfare. When it functions effectively, it serves the nation by stimulating the efficient provision of goods and services. Moreover, it promotes business investment in research, new equipment, and other capital goods necessary for improvements in productivity and economic growth. The market system benefits a broad spectrum of the society including workers, consumers, and other people in business. It also provides resources to support social programmes that improve the quality of life.

The existence of competitive markets is extremely important for a country's economic and political development. Historically, the function of business has been to supply the public with goods and services and to provide jobs and income, thereby increasing the nation's wealth. The competitive market is usually the most effective vehicle for allocating resources to produce most of the goods and services a country needs.

1.2 Problem Statement and Justification

Upper West region is experiencing unemployment problems. Population growth and increased urbanization are generating increased demand for employment and food, and concerns are emerging about malnutrition, especially in semi-urban and rural areas. There is also insufficient information to adequately inform policy makers about the nature and potentials of various opportunities for self-employment, of which vegetable marketing is one.

Vegetable production and marketing play a significant role in reducing poverty through creating new job opportunities for poor farmers, improving the nutrition status of the diet of the people, and employment generation. According to Lumpkin *et al.* (2005) cultivation of vegetables allows productive employment as the labour/land ratio is high. As a result, increasing horticultural productions contribute to commercialization of the rural economy and create many off arm jobs.

According to Bezabih and Hadera (2007), a production of horticultural product is seasonal and price is inversely related to supply. During the peak supply period, prices decline and vice versa. The situation is worsened by the perishability of the

products and poor storage facilities. Thus, 20-50 % and in some cases even more of the product is spoiled along the marketing channel (Abu, 2002).

As far as vegetable production and marketing in the Upper West region is concerned, seasonality is the major constraint, where surplus management at harvest is the main characteristics of the production. The perishability nature of the produce on one hand and lack of organized marketing system on the other often resulted in low producer price during peak harvest season and vice versa.

Smallholders supply vegetables throughout the year in the Upper West Region, but are unable to generate as much benefit from production (ATA, 2014). This might be due to improper understanding of the market situation and lack of previous knowledge on key market chain actors within the urban and semi-urban areas by smallholder producers

Getachewet *et al.* (2014) revealed that wholesalers (supplying the bulk to consumers) are making the highest net margin as they have short channels between producers and consumers, and as they relatively charge a higher price using their wholesale-market power. The net margin for the smallholder farmers is highest only when vegetables are sold to individual consumers through unions or consumer cooperatives (thereby reducing the numbers of middlemen across the market chain). Abraham (2013) found that when vegetables pass through several intermediaries, little cost is being added which translates to higher cost to the end users. Furthermore, the market chain is heightened by wholesalers and exporters who have capital advantage over the other chain actors. Hence, farmers are forced to obtain a lower share of profit margin.

Market distortions are common activities of middlemen in price setting. Some vegetables are not creating time value due to their perishability. This enables actors particularly middlemen to do purchases at comparatively low costs, which further reduce producers' bargaining power to sell their vegetables at a price convenient for them. Under such circumstances, a study that focused on the analysis of vegetable market chain actors and channels can play substantial role towards the improvement of the existing market situation. In addition, a study on the market information, producer organizations, and structure of the market are important to alleviate the market distortion within the urban and semi-urban areas.

Even though vegetables are economically and socially important, key vegetable marketing actors and channels such as input suppliers, financial supporters, producers, consumers, rural assemblers or farmer traders, middlemen or brokers, wholesalers, and retailers, and their characteristics have not yet been studied and analyzed for the target study area, where great potential of vegetable production exists.

This study has the purpose of identifying key vegetable marketing actors and channels; investigating market structures of major actors; and assessing market performance by quantifying costs and profit margins for key actors in the vegetable market chain. Furthermore, the study assesses opportunities and constraints that vegetable marketeers face in the process of production and sale of vegetables. Thus, a comparative study of vegetable marketing in urban and semi urban areas in Upper West region will contribute to better understanding of the marketing system for the benefit of vegetable marketeers and other development actors involved in the

marketing process. The study will encourage and can also be used as an input for other researchers to further investigate the issue presently under investigation. Abu (2002) observed that the perishable nature of most fruits and vegetables introduces special marketing difficulties for the marketeers. The author added that vegetable researchers have too often neglected this aspect and have instead confined themselves to agronomic aspects of their production.

Vegetable marketing is among the main territories for intervention and planning of strategies that aim to wipe out hunger and poverty and improve livelihoods. Growing poverty, hunger, and lack of formal employment opportunities can be handled by the special opportunities in vegetable marketing. Unemployment problem, uncontrollable population growth, and increased urbanization are generating increased demand for employment and food, and emerging consciousness about malnutrition especially in urban and semi-urban areas. There is also insufficient information to adequately inform policy makers about the nature and potentials of various opportunities for self-employments, of which vegetable marketing is one.

Increased production and improved marketing of vegetables can create more self-employment and enhance the nutrition of the people of Upper West region, thereby providing answers to part of the unemployment and nutrition problems.

Unfortunately, the vegetable marketeer, who is the main player in this business, has only limited capacity to solve problems affecting his or her business in the absence of an enabling environment put in place by the government. Women play a major role in the marketing of vegetables, and, as such, they contribute significantly to household

income and food security. Enhancing the role of women in vegetable marketing will thus improve food security at the household level.

1.3. Research Objectives

1.3.1 General research objective

The overall objective of this study was to compare vegetable marketing in urban area and semi-urban areas in order to evaluate the performance of vegetable marketeers and make recommendations about how the problems they face could be solved.

1.3.2 Specific research objectives

Specifically, the study intended:

i. To investigate and compare the profit margins for the urban and semi-urban areas so that those willing to go into this business could be accurately advised or informed.

ii. To identify the marketing problems being faced by the vegetable marketeers in order to learn what role the government could play to improve and encourage vegetable marketing.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Theories and Basic Concepts in Marketing

2.1.1 Market and marketing concepts

Different marketing scholars define market in different ways but encompass nearly similar meaning. A market is a place, a point or sphere within which price-making force operates and exchanges of title tend to be accompanied by the actual movement of the goods affected (Backman & Davidson, 1962). Formerly the term *market* stood for the place where buyers and sellers get together to exchange their goods, like the village square. The concept of exchange and relationships lead to the concept of market. It is the set of the actual and potential buyers and sellers of a product (Kotler & Armstrong, 2003). However, conceptually a market can be envisaged as a process in which ownership of goods is transferred from sellers to buyers who may be final consumers or intermediaries. Therefore, markets involve sellers, sales locations, buyers, and transactions.

Market is a particular group of people, an institution, and a mechanism for facilitating exchange (Johan *et al.*, 1988). It also relates the concept of market to the degree of communication among buyers and sellers and the degree of substitutability among goods. Moreover, Bain and Howells (1988) defined market as simple arrangements to facilitate exchange of one thing for another. The most observable features of a market are its pricing and exchange processes and it is more than a physical place. In today's information and communication technologies there is no need to meet physically for a

market to operate. Saccomandi (1998), defined market as the exchange, circulation and distribution of commodities between people and places. By agricultural market, Saccomandi (1998) further added that market is economic 'place' in which agricultural producers sell the products obtained in their firms with the degree of space, form, and time-related utilities required by the buyers. Kilter's (2003) definition of marketing is widely known as "the 21st century definition of marketing" which runs as follows "a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and values with others". Richardson (1986) underscores the fact that little can be achieved by debating on the definition of marketing and he provides a fairly broad and widely accepted definition of marketing. According to him "marketing includes all activities from the farm gate to final consumer".

Marketing in its simplest form is defined as the process of satisfying human needs by bringing products to people in the proper form, time and place (Branson & Norvel, 1983).

The definition of marketing as a process by which individuals and groups obtain what they need and want by creating and exchanging products with values involves work. Marketing is about the flow of goods and services from their point of production to point of consumption and for that matter, marketing of agricultural products begin at the farm where the farmer plans his production to meet specific demand and market prospects (Abbott & Makeham, 1981; Kohls & Uhl, 1985). Marketing means different things to different people. To the house wife it means shopping food; to the

farmer it means the sale of his produce; to the fertilizer distributor it means the selling of fertilizer to the farmer (Abbot & Makeham, 1981).

2.1.2 Marketing system

Branson and Norvel (1983) define the marketing system in terms of what is otherwise known as marketing channel. In broad terms, marketing system may be defined as the totality of product channels, market participants and business activities involved in the physical and economic transfer of goods and services from producers to final consumers. Marketing system operates through a set of intermediaries performing useful commercial functions in chain formations all the way from the producer to the final consumers (Islam *et al.*, 2001).

In the quota system, an obligatory delivery system was imposed on certain commodities of greater demand such as rice, wheat or export and industrial crops such as cotton, sesame and onion. Producers were obliged to deliver predetermined quantities of these crops to the state at predetermined prices. This system is common in the command and central planning economic system in Ghana. (Nabil, 2012).

2.1.3 Marketing efficiency

The marketing efficiency is measured in terms of price integration of markets.

According to Jema (2008), an increase in market produce calls for larger and improved market facilities. The author noted that marketing efficiency is measured by comparing the observed output against the feasible output. The scarcity of resources is the major factor that makes the improvement in efficiency so important to an economic agent or to a society. In general, marketing efficiency is evaluated based on

the gross margin encountered in the traders. The marketing margin refers to the difference between buying price and selling price. Hence, the more efficient the marketing system is, the smaller the margin. The following are two main issues that should be considered during evaluation of market efficiency. They are technical efficiency and price efficiency.

i. Technical efficiency: This is concerned with the manner in which physical marketing functions are performed to achieve maximum output per unit of input. Technological changes can be evaluated to determine whether they reduce marketing costs per unit of output. For example, new methods of packaging and processing may reduce waste and prevent deterioration in quality (Abbot and Makeham, 1981).

ii. Price efficiency: Price efficiency is concerned with the accuracy, precision, and speed with which prices reflect consumers' demand and are passed back through the market channels to producers. Price efficiency is, thus, affected by rigidity of marketing costs and the nature and degree of competition in the industry. Activities that may improve price efficiency are improvement of market news and information, and competition (Cramer & Jensen, 1982). The objective of price efficiency is to improve the operation of buying, selling, and pricing aspect of the marketing process, so that it remains responsive to consumer's preference (Kohls & Uhl, 1985).

2.1.4 Marketing actors

i. Producer: producer is the first link in vegetable market chain. The producer harvests produce and supplies to other actors. Producer decides what type crop to cultivate, how much of this crop to cultivate and when to cultivate this and sale. Unless otherwise, particularly when the producer is producing on contract basis

ii. Consumer: Is the last link in the vegetable market chain, the other actors and their respective functions often overlap. The most widespread combinations are the following: producers to wholesalers that collect commodity and supply it to retailers, wholesalers to retailers (wholesalers that also sell directly to consumers) and wholesalers to exporters.

iii. Rural assembler: Sometimes also known as farmer trader, he/she is the first link between producer and other middlemen.

iv. Middlemen/ brokers: A broker is an individual or party that arranges transactions between a buyer and seller for a commission when the deal is executed. A broker also acts as a seller or as a buyer, when he or she becomes a principal party to the deal.

v. Wholesaler: wholesalers concentrate on the various intermediate sized loads and put the product into large uniform units. These activities contribute to price formation.

vi. Retailers: Retailers divides large shipments of produce and sell to consumers in small units. The basic function they provide is bulk breaking. Retailers could also be vendors in some other situations, vendors cloud emerge from retailers or could also obtain produce from retailers for their vendors activities.

2.1.5 Marketing channel

The term channel is derived from the Latin word *canalis*, which means canal. A marketing channel can be viewed as a large canal or pipeline through which products, their ownership, communication, financing and payment, and accompanying risks flow to the consumer (Backman & Davidson, 1962).

A marketing channel is a business structure of interdependent organizations that reach from the point of product origin to the consumer with the purpose of moving products to their final consumption destination (Kotler & Armstrong, 2003). The analysis of marketing channels is intended to provide a systematic knowledge of the flow of goods and services from their origin (producer) to their final destination (consumer). This knowledge is acquired by studying the participants in the process, i.e. those who perform physical marketing functions in order to obtain economic benefits (Getache, 2002).

Abbot (1958) earlier on defined marketing channels as the sequence of intermediaries through which goods pass from producer to consumer. This channel may be short or long depending on kind and quality of the product marketed, available marketing services, and the prevailing social and physical environment (Islam *et al*, 2001). It should be noted that many marketing channels might exist, as there are separate sources and/or destinations for each item.

2.1.6 Market chain analysis

A marketing chain is used to describe the numerous links that connect all actors and transactions involved in the movement of agricultural products from the farm to the consumer (Lunndy *et al*., 2004). According to (CIAT, 2004), market chain is the term used to describe the various links that connect all market actors and transactions involved in the movement of agricultural goods from the producer to the consumer. Commodity chain is the chain that connects smallholder farmers to technologies that they need on one side of the chain and to the product markets of the commodity on the other side (Mazulas, 2006).

To find out how many traders are operating in the marketing system, and at what point a commodity changes hand, it is helpful to sketch its flow through the marketing chain. The competitiveness of a market and the structure of the marketing chain are obviously related. If at some point in the chain only a single buyer or seller exists, then non-competitive behavior is likely. Alternatively, the presence of many active buyers and sellers along the chain carries a strong presumption of competitive behavior and efficient market performance. Estimating volumes and percentages of commodity transformations at each link in the market chain provides an overview of the marketing systems (Timmer *et al.*, 1983).

Kotler (2003) defines market chain as a longer channel stretching from raw materials to final products that are carried to final buyers. The other shortly puts it as value-delivery network. According to Hobbs *et al.* (2000), the term market chain refers to the entire vertical chain of activities: from production on the farm, through processing, distribution, and retailing to the consumer. In other words, it is the entire spectrum, from farm gate to table plate of consumption, regardless of how it is organized or how it functions. In general, the reviewed literature explained that market chain analysis identifies and describes all points in the chain (producers, traders, transporters, processors, consumers), prices in and out at each point, functions performed at each point (who does what?), market demand (rising, constant or declining), approximate total demand in the channel, and market constraints and opportunities for the products. Hence, for a clear application and understanding, market chain definitions in this study are framed to mean everything from input supply down to consumption, which is comprehensive.

2.2 Approaches to the Study of Agricultural Marketing

According to Johan *et al.* (1988), different circumstances are involved in the supply and demand of agricultural products and the unique product characteristics; thus requiring different approaches for analyzing agricultural marketing problems. The most commonly used are functional, institutional, and commodity approaches.

2.2.1 Functional approach

Functional approach studies marketing in terms of the various activities that are performed in getting farm product from the producer to the consumer. These activities are called functions (Cramers & Jensen, 1982). According to Kohls and Uhl (1985), functional approach is to break up the whole marketing process into specialized activities performed in accomplishing the marketing process. The approach helps to evaluate marketing costs for similar marketing middlemen, different commodities, and costs and benefits of marketing functions (Kohls & Uhls, 1985; Andargachew, 1990). The widely accepted functions include; exchange (buying and selling), physical (processing, storage, packaging, labeling and transportation), and facilitating (standardizing, financing, risk bearing, promoting, and market information). The exchange function involves pricing, buying, and selling; which is a transfer of title between exchanging parties.

2.2.2 Institutional approach

Institutional approach mainly focuses on the description and analysis of different organizations engaged in marketing (producers, wholesalers, retailers, etc) and pays special attention to the operations and problems of each type of marketing institution. The institutional analysis is based on the identification of the major marketing

channels and it considers the analysis of marketing costs and margins (Mendoza, 1995). An institutional approach for the marketing of agricultural product should be instrumental in solving the three basic marketing problems, namely consumers' demand for agricultural products, the price system that reflects these demands back to producers, and the methods or practices used in exchanging title and getting the physical product from producers to consumers in the form they require and at the time and place desired (Johan et al., 1988).

2.2.3 Commodity approach

In a commodity approach, a specific commodity or groups of commodities are taken and the functions and institutions involved in the marketing process are analyzed. This approach focuses on what is being done to the product after it transfers from its original production place to the consumer (Kohls & Uhl, 1985).

Among the above listed approaches, this study applied the commodity approach as a guideline because it helps to pinpoint the specific marketing problems of each commodity as well as improvement measures. The approach follows the commodity along the path between producer and consumer and is concerned with describing what is done and how the commodity could be handled more efficiently.

2.3 Framework for Evaluation of Marketing System

The development of reliable and steady market system has been an important element in commercialization and specialization in the agricultural sector. In order to study the functioning of markets many researchers have applied the Structure-Conduct-Performance (SCP) paradigm. The SCP approach was developed in the United States as a tool to analyze the market organization of the industrial sector and it was later

applied to assess the agricultural system and this framework was to evaluate the performance of industries in the USA (Meijer, 1994). Subsequently, it was applied in the functioning of markets in agricultural sector, and served as a tool to evaluate the performance of the commercial system (Girma, 2002).

The fundamental view of this approach is that, given certain basic conditions, the structure of an industry or market determines conduct of buyers and sellers which influence its performance. The basic conditions refer to characteristics which are exogenous to the market, for example infrastructure, legal and policy environment, and available technology. Efficiency factors can be evaluated by examining marketing enterprises for structure, conduct, and performance (Abbott & Makeham, 1981). SCP model is one of the most common and pragmatic methods for analyzing marketing systems. It analyzes the relationship between functionally similar firms and their market behavior as a group and, it is mainly based on the nature of various sets of market attributes and relations between them and their performance (Scarborough & Kydd, 1992). This analytical method is based on the theory that market structure and conduct determine the performance of a marketing system.

2.3.1 Structure of the market

The term market structure refers to the number of buyers and sellers, their size distribution, the degree of product differentiation, and the ease of entry of new firms into an industry (Branson & Norvell, 1983; Cramer &. Jensen, 1982; Abbott & Makeham, 1981). Market structure can also be defined as characteristics of the organization of a market, which seem to strategically influence the nature of competition and pricing behaviour within the market (Bain, 1968). Structural

characteristics may be used as a basis for classifying markets. Markets may be perfectly competitive; monopolistic; or oligopolistic (Scott, 1995; Meijer, 1994).

The organizational features of a market should be evaluated in terms of the degree of seller concentration, entry barriers (licensing procedure, lack of capital, technical know-how, and policy barriers), degree of transparency, and degree of product differentiation that conditions or influences the conduct and strategies of competitors (Wolday, 1994). Market concentration can be defined as the number and size of sellers and buyers in the market. Concentration is believed to play a large role in the determination of market behaviour within an industry because it affects the interdependence of action among firms. The relationships between concentration and market behaviour and performance must not be interpreted in isolation. Other factors, such as firms' objectives, barrier to entry/exit, economies of scale, and assumptions about rival firms' behaviour, are relevant in determining the degree of concentration, relationship between concentration and behaviour and performance (Schere, 1980).

The study of Wolday (1994) on the food grain market indicates that from the total volume purchased, four of the first four big traders (CR4) had 35 % market share. Gebremeskel, *et al* (1998) reveals that in 25 markets in Ghana, the first four big grain traders (CR4) had a market share of 32.58 %. In both cases the result indicated a weak oligopoly.

2.3.2 Conduct of the market

The structure and conduct of market participants have a direct implication for the nature of production and price relationships between different marketing levels and the direction of causality.

Market conduct refers to the practices or strategies of traders in maximizing their profits. Among these practices are the use of regular partners, long-term relations with clients and suppliers, the use of intermediaries, and trade within personalized networks (Wolday, 1994). Market conduct deals with the behaviour of firms that price-searchers are expected to act differently than those in a price-taker type of industry (Cramers & Jensen, 1982). Price searchers can determine their selling prices or quantity of output they sell. In addition, they could use their market power to weaken or eliminate competitors by reducing price (Rehima, 2007).

The specified structural features of homogeneous product and free entry and exit require a form of conduct such that each firm must operate as if in isolation. The market behaviour of firms determines whether or not they compete and whether they are acting innovatively to improve market efficiency.

Informal association (collusion) can cause price distortions and seemingly independent firms can have joint ownership (subsidiaries) (Staal, 1995).

Meijer (1994) reveals that, conduct is pattern of behaviour which enterprises follow in adopting or adjusting to the market in which they sell or buy. In other words it refers to the strategies of the actors operating in the market.

2.3.3 Performance of the market

Performance of the market is a reflection of the impact of structure and conduct on product price, costs, volume, and quality of output (Cramers & Jensen, 1982). If the market structure in an industry resembles monopoly rather than pure competition, then one expects poor market performance.

Abbott and Makeham (1981) indicated that market performance is how successfully the firm's aims are accomplished, which shows the assessment of how well the process of marketing is carried out. One can imagine a causal relation starting from the structure, which determine the conduct, which together determine the performance (technological progressiveness, growth orientation of marketing firms, efficiency of resource use, and product improvement and maximum market services at the least possible cost) of agricultural marketing system in developing countries (Meijer, 1994).

The performance of a certain market or industry depends on the conduct of its sellers and buyers which, in turn, are strongly influenced by the structure of the relevant markets (Scarborough & Kydd, 1992). Market performance can be evaluated by analyzing the costs and margins of marketing agents in different channels. A commonly used measure of system performance is the marketing margin or price spread. Margin or spread can be a useful descriptive statistic if it is used to show how the consumer's food price is divided among participants at different levels of a marketing system.

2.3.3.1 Marketing costs

Marketing costs includes handling cost (packaging and unpackaging), costs of searching for a partner with whom to exchange, screening potential trading partners to ascertain their trustworthiness, bargaining with potential trading partners (officials) to reach an agreement, transferring the product, monitoring the agreement to see that its conditions are fulfilled, and enforcing the exchange agreement (Holloway & Ehui, 2002).

2.3.3.2 Marketing margin

It is a commonly used measure of the performance of a marketing system (Abbott & Makeham, 1981). It is defined as the difference between the price the consumer pays and the price that is obtained by producers, or as the price of a collection of marketing services, which is the outcome of the demand for and supply of such services (Cramers & Jensen, 1982; Wasiam & Robinson, 1990; Holt, 1993). The size of market margin is largely dependent upon a combination of the quality and quantity of marketing services provided the cost of providing such services, and the efficiency with which they are undertaken and priced. For instance, a big margin may result in little or no profit or even a loss for the seller involved depending up on the marketing costs as well as on the selling and buying prices (Mendoza, 1995).

The marketing margin in an uncompetitive market is likely to be higher than that in a competitive market because of the expected abnormal profit. But marketing margins can also be high, even in competitive market due to high real market cost (Wolday, 1994).

There are three methods generally used in estimating marketing margin, which consist of:

i. Detailed analyses of the accounts of trading firms at each stage of the marketing channel;
ii. Computations of share of the consumer's price obtained by producers and traders at each stage of the marketing chain; and
iii. Concurrent method: comparison of prices at different levels of marketing over the same period of time (Mendoza, 1995; Scarborough & Kydd, 1992).

2.4 Characteristics of Vegetable Marketing

Being produced by both low scale and smallholder farmers' vegetable marketing is influenced by a number of factors that can be attributed to production, product, and market characteristics. Kohl and Uhl (1985) identify these attributes as perishability, price quantity risks, seasonality and product bulkiness.

2.4.1 Perishability

Vegetables are highly perishable; they start to lose their quality right after harvest which continues until it is consumed. For this purpose elaborate and extensive marketing channels, facilities, and equipment are vital.

Prices may be negotiated while the commodities are on route, and they are frequently diverted from their original destination where a better price could be found. Sellers might have little market bargaining power in determining a price. As a result, a great deal of uncertainties is involved in marketing fresh vegetables. There could not always be time to write everything down and negotiate the fine details of a trade. The uncertain processes often lead to disputes between buyers and sellers of fresh vegetables and fruits. Producers are frequently exposed to cheating by any intermediary.

2.4.2 Price/quantity risks

Due to the perishable nature of fruits and vegetables there is a difficulty of scheduling the supply of vegetables to meet market demand. Fruits and vegetables are subjected to price and quantity risks with changing consumer demands and production conditions respectively. Unusual production or harvesting weather or a major crop

disease can influence the marketing system. A number of marketing arrangements like contract farming provide stability for food marketing systems.

2.4.3 Seasonality

Vegetables are prone to seasonal production that directly influences their marketing. Normally, they have short period of harvest and are more or less a year round crop demand. In some cases cultural and religious, and other social activities also make demand to be seasonal. This situation is worsened by lack of facilities to store vegetables and vegetable products.

2.4.4 Product bulkiness

Since water is the major components of fruits and vegetable, it makes them bulky and low value per unit that is expensive to transport in fresh form every time. This, therefore, makes farmers to lose large amounts in the farm when unsold.

These listed characteristics of the produce require a special complex system of supportive inputs. It demands a regular marketing preparation process like washing, cooling, proper management from the time of harvest until the produce is put on display. It is frequently believed that a vegetable not only remain attractive to the consumer it must also have a shelf life of a few days after having been purchased by the consumer (Nonnecke, 1989).

Improving vegetable marketing in developing countries is vital for a number of reasons including rapid increase in demand from growing domestic urban populations, opportunities to earn foreign exchange by exporting high value-off-season produce, the income raising opportunities it offers to smallholder farmers, and

the contribution to employment made by its labour intensive production, handling and sales requirement.(Abay, 2007).

Horticultural production is profitable. Farmers involved in horticultural production usually earn much higher income as compared to cereal producers. Cultivation of fruits and vegetables allow for productive employment where the labour/land ratio is high, since horticultural production is usually labour intensive. Increasing horticultural production contributes to commercialization of the rural economy and creates many off-farm jobs. However, expanding the scale of horticultural production is often hindered by lack of market access, market information, and many biological factors (Weinberger & Lumpkin, 2005).Ideally, measures commonly recommended for the improvement of vegetable marketing are better packaging, handling, and transport sorting by quality, extending the market season and leveling out gluts, planning, storage, developing new markets, installation of refrigerated transport and processing equipment, and establishing marketing enterprises.

In general from the reviewed literatures the main problems encountered in vegetable production in Ghana are like lack of improved varieties, seasonal price fluctuations, harsh production, seasonality effects, prevalence of pest and diseases, poor pre-harvest and post-harvest handling, poor quality of produce and lack of storage.

2.5 Review of Empirical Studies

2.5.1 Agricultural product marketing

Many scholars conducted research on marketing of agricultural commodities using market concentration ratios, marketing costs and margins, and profit analysis. The

result indicates that margin and profit received by marketing actors and level of market efficiency varied with respect to location and size of marketing channel. Scott (1995) uses marketing margin analysis on potato marketing in Bangladesh and found out that producer's price and margin were 1.27 and 67 % respectively. Ayelech (2011) employs marketing margin analysis on fruits marketing chains in Gomaworeda in Oromiaregion of Ethiopia and revealed that processors received the highest (88.73 %) marketing margin and producers received the least (11.27 %) marketing margins in avocado and mango trade business. Solomon (2004), using marketing cost and margin, analyzed performance of cattle marketing system and found that butchers at Addis Ababa market received relatively a larger share from total gross marketing margin (69.5 %, 63.4% and 61.6 %) for cattle supplied from markets respectively. Concerning producers' portion, he found that the highest percentage was found for cattle supplied is (21.9 %), followed by gross margins of 20.6 % and 18.6 %, respectively.

2.5.2 Vegetable production and marketing

In Ghana especially in the northern part is endowed with many valuable indigenous vegetables including local leafy vegetables. Common local leafy vegetables cultivated in the Upper West region are ayoyo (Chochorus or jute mallow), *Corchorus olitorius*; bra (Roselle), *Hibisctus sabbariffa; suule* (bean leaf), *Phaseolus vulgaris*, alefu (amaranth), *Amaranthus cruencus*, among others. These vegetables can be exploited for commercial purposes since they grow on marginal and less fertile lands and are well adapted to the tropical African climate than the exotic ones (Abukutsa-Onyago, 2007). Production of these local leafy vegetables contributes

positively to Ghana's economy as a whole and help resolve the problem of poverty, hunger and malnutrition (Mohammed, 2011). According to Ajewole and Folayan (2008), production of local leafy vegetables generates higher profit and employment to farmers and the nation as a whole as compared to the exotic vegetables. The production, marketing and consumption of these vegetables also have potential social, economic and health benefits and as well serve as a source of livelihood and a good source of essential nutrients leading to food security (Irungu *et al.*, 2011).

Local leafy vegetables mainly contribute to the rural economy of Northern Ghana especially through income generation particularly to women who engage either in the cultivation, collection or sales. These vegetables are sources of essential vitamins such as vitamin A, B, and C and minerals such as iron and calcium, certain essential amino acids such as lysine (Imungi, 2002) as well as supplementary protein and calories which can eliminate deficiencies among children, pregnant women and the poor (Habwe *et al.*, 2009). They are also used in the management of diseases such as human immune deficiency virus infection and acquired immune deficiency syndrome (HIV/AIDS), diabetes, high blood pressure and other common ailments (Imungi, 2002).

2.5.3 Importance of vegetable production in Ghana

Vegetable crop production has many benefits and opportunities including sources of food/nutrition, source of income, source of employment, material for medicinal purposes, source of foreign exchange, insecticidal properties, and source of raw materials (Norman, 1992).

2.5.4 Vegetable marketing in Upper West region

Vegetables sold in the market centres of the Upper West region include, tomato okra, pumpkin leaf, onion, cassava leaf, amaranths (alifu leaf), *Chorchorus spp* (ayoyo leaf), bean leaf, baobab leaf, cocoyam leaf, garden egg, and green pepper. Much supply of these is done commercial during the dry seasons using irrigations. In urban centres many women engage in this business even though there is less productions. The urban marketeers get supply from women traders who buy from far places such as Tamale, Kumasi, Tachiman, Bawku, Navirongo and nearby countries such Burkina Faso in Lio and Bobo, and from wholesale farmers who bring from the rural areas such as Dorimon and Busah, Bulenga and others to Wa. Few areas in town that the marketeers get supply include Mangu in Wa, the regional capital. Most of the marketeers in the urban market buy the produce in small quantities due to the big number of traders in the same business. Others buy on credits and few produce them to sell. Because of the small nature of quantities sold daily, the profit margin is very small. All of these vegetables can be supplied in the region except onion, whose production is negligible and always supplied from Lio, or Bobo in Burkina Faso, Bawku, Navirongo, Kumasi or Tachiman (personal communication).

The marketeers in the rural areas as well as peri-urban and semi-urban areas are self-producers, they produce to sell and also to supply. According to most of the marketeers through oral interaction, much of the production of the vegetable crop is done during the dry season because of high demands in this period of the year, since many do not produce only to consume and suppliers do not produce other staple crops in this season too (personal communication).

2.5.4 Challenges and problems in vegetable marketing in Upper West region

There are many challenges in this industry in Ghana as well as in Upper west regions which discourage many traders from doing this business for good. Among other challenges and problems faced in Upper West region include, insufficient income, lack of storage facilities, lack of proper sitting places in the market, damages/loss due to the perishable nature of the produce, difficulties in fencing the production fields on the part of brokers, destroying of produce by animals, inadequate supply of water in all year round, debtors failure to pay, fluctuation of prices of the produce, lack of supports, and high cost of inputs and transportation (personal communication).

2.6 Production and Marketing Information Flows in Vegetable Marketing

The identification of actors and channels related to marketing and participation of vegetable producers in the market chain is presented in Figure 2.1. Based on theoretical concepts and empirical studies in vegetable sectors, a framework was prepared in Figure 2.1. As shown in the Figure.2.1, the production and market chain of vegetables is a vertical alliance of enterprises collaborating to varying degrees along the range of activities required to bring a product from the initial input supply stage, through the various phases of production, to its final market destination. For this reason, vegetable market chain means vegetable produce moving from smallholder producers (who grow and harvest vegetables) to the market through intermediaries including producer organizations, intermediaries (brokers, wholesalers, exporters, transporters, and retailers) up to the final consumers. For efficiency of vegetable transaction, actors require financial, technical, and logistical support services. Market chain covers the activities from the stage of vegetable harvesting

until it reaches the point of consumption. This involves various actors either in local, regional, national, or international level. The major driving factors in the domestic market for vegetables is the profit margin obtained, value added practices, and security of income; while at the international markets more emphasis is on the quality of the produce. Smallholder producers have to comply with these standards to access the international markets. Nevertheless, income security and the profit margin are also the driving factors in the international markets. Poor quality and lower scale of production has been the factors hindering the smallholder farmers to reach the international markets while intensification and improved production level, and upgrading activities in the processing may help the farmers to have direct contact with the domestic and international markets.

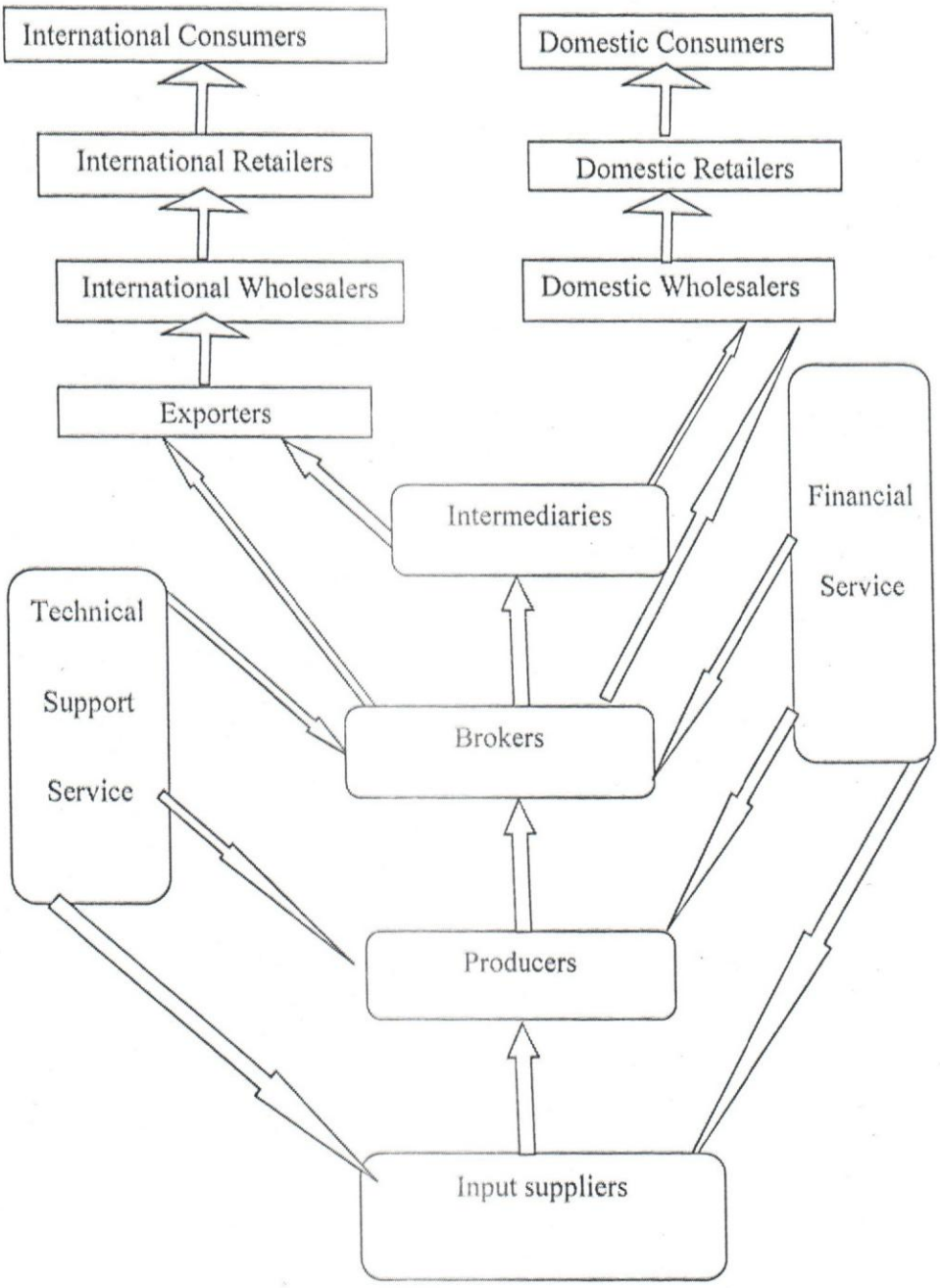

Figure2.1: Production and information flow in vegetable marketing.

CHAPTER THREE

3.0 METHODOLOGY

This chapter addresses the procedure of carrying out the research. First the chapter offers a description of the profile of the study area. The remaining parts of the chapter presents the research design, data types and sources, sampling size and sampling procedure, data collection instruments, and data analysis

3.1 Study Area

The study was conducted in the Upper West Region of Ghana. Upper West Region is one of the ten regions in Ghana. Elements presented under the study area include location and size, population distribution, vegetation and climate, cultural activities, the local economy, and religion.

3.1.1 Location and communities

It located at North Western corner of Ghana with latitude 9.8°-11.0° North and longitude 1.6°-3.0° West, bordered by Upper East region to the east, Northern Region to the south and Bukina Faso to the west and north. It covers a geographical area of 18,476 square kilometers represents 12.7 % of the total land area of Ghana. It is the seventh longest region in Ghana in total area and it is made up of eleven (11) districts.

The major economic activity in the region is agricultural and this region host the famous Hippopotamus sanctuary located South West of Wa the capital town along the Black Volta River in the Wechiau, the capital town of Wa West district. Gwollu Well located at Gwollu, the capital town of Gwollu district, formal known as Sissal district, the home town of one of the past president of Ghana, (Dr. Hila Limam)

(GSS, 2014) The implications of the location of the region include among other developmental agenda such as; enhancing bilateral trade and commerce with the Franco phone countries of Burikina Faso and La Côted'ivoire. Upper West region has the potential of growing into both an industrial and commercial hub for the North-Western corridor of Ghana. Many traders from all walks of life bring agricultural products to the region markets centres for Sale (GSS, 2014).

Wa Municipal is capital of Upper West Region (UWR) of Ghana. It shares administrative boundaries with the Nadowli District to the North, the Wa East District to the South-East and the Wa West District to the South-West. It lies within latitudes 1° 40'N - 2°45'N and longitudes 9°32'W - 10°20'W (GSS, 2014). Figure 3.1 presents a map depicting the capital town (Wa district) of Upper West Region boundaries, and selected major marketing centres.

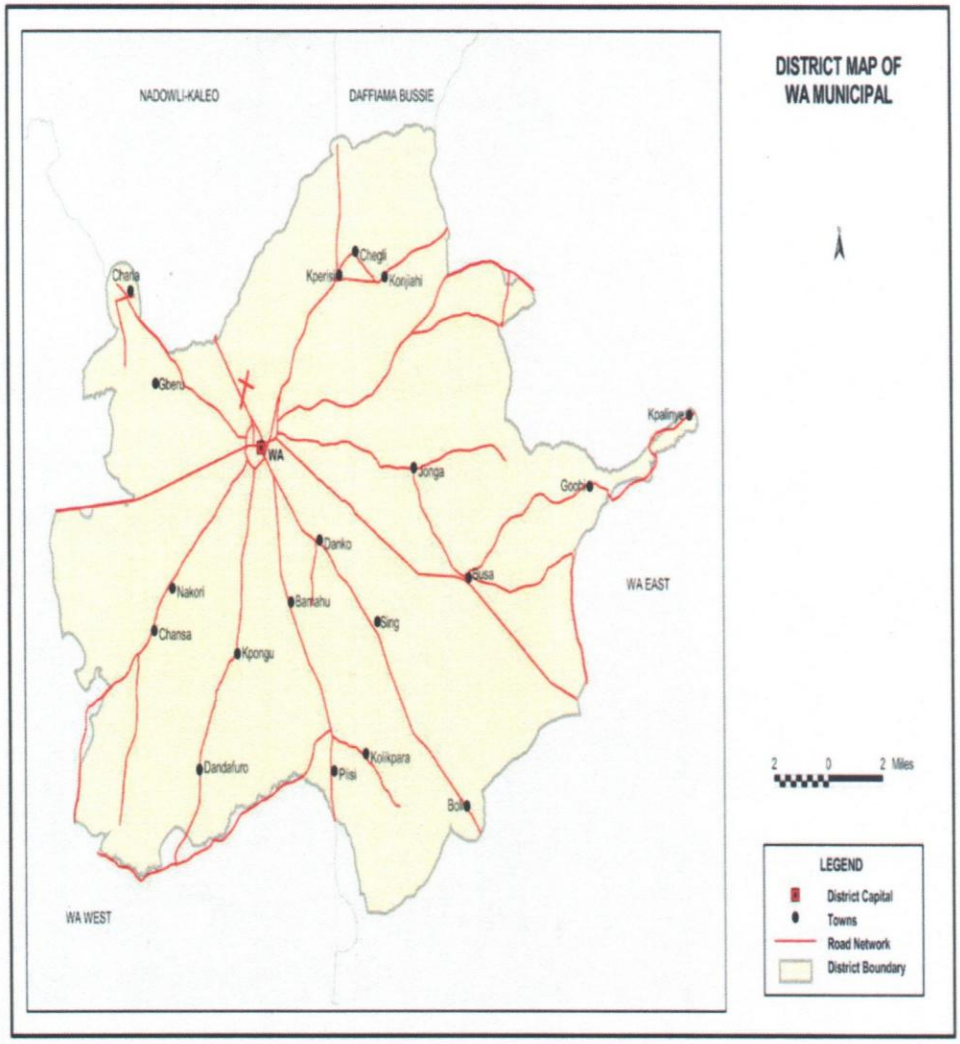

Figure 3.1: Map of Wa Municipality

Source: Ghana Statistical Services (2017)

3.1.2 Population distribution

Upper West Region has a total population (2010 census) 276,445 (47.9 %) and 300,138 (52.1 %) males and females respectively. According to a Population and Housing Census (PHC, 2014), it regional capital (Wa Municipality) had a total population of 107,214 comprising 52,996 and 54,218 males and female respectively. This constitutes 15.3 % of the total population of the Upper West Region (GSS,

2010). The growth rate of the Municipality varies between 2.7 % for rural and 4 % for the urban. There is a growing population density and consequently pressure on land and educational infrastructure. The population structured of the regional has preponderance of the youth over the aged and also females over males. In the regional capital, youth constitutes 49 %, potential working population is 47 % and the aged made up 4 %. This means a high dependency ratio since the economically active population is 47 % compared to a dependent population of 53 %. The population is also a female dominated one, that is, 51 % against 49 % males and majority of vegetable marketeers are women. This brings the fore need to improve vegetable marketing for the growing population. This is not different to other parts of the region.

Over 80.4 % of people in the regional belong mainly to one linguistic group the Mole-Dagbani group. The Dagaabas are the most populous. Other ethnic groups found in the Municipality include the Akan, Grushi, Ewe, Ga, Dagomba, Gonja, Sissala, Moshies etc. they are engaged in government work and various commercial activities (GSS, 2014).

3.1.3 Religion

There are three main religious denominations in the in this region; Christianity, Islam, and worshipers of the African Traditional religion. These main groups co-exist even though some pockets of social-cultural differences do exist among them. Vegetable farming and marketing in the region include all three groups mention.

3.1.4 Climate and vegetation

Upper West Region has two marked seasons, namely: the wet and dry seasons. During the wet season, the South-Western Monsoon winds from the Atlantic Ocean bring rains between April and October, whilst during the dry season, the North-Eastern Trade winds from the Sahara brings the long dryness between November and March. The mean annual rainfall varies between 840 mm and 1400 mm. Most of the rainfall occurs, between June and September and it is not unusual to have very high rainfall figures concentrated in a few rainy days. One feature of the rainfall pattern is that it tends to occur in heavy downpours, thus, encouraging run-off rather than soil moisture retention. It has been calculated that there are four (4) humid months, in terms of soil moisture conditions which is only adequate for the cultivation of crops such as millet, guinea corn, yam, groundnuts and beans. The rainfall pattern is irregular and unreliable. Sometimes, it results in long period of no rain during the farming season which affects production. This has implications for the type of vegetation since that Upper West region is Ghana savannah grassland type (GSS, 2014).

The vegetation is of the Guinea Savannah grassland type, made up of short trees with little or no canopy and shrubs of varying heights and luxuriance, with grass ground cover in the wet season. Commonly occurring trees are shea trees, dawadawa, kapok and baobab. Cashew and mango are exotic species growing well in the area. It may be noted that parts of the natural tree vegetation are disappearing due mainly to human activities through crops cultivation, overgrazing, bush fires, and charcoal-burning

particularly at the suburbs of the region. Nevertheless, the vegetation supports livestock production including cattle, sheep, and goats (GSS, 2017).

The vegetation of the region requires effective public education to curtail its deterioration. This can be done through educational institutions such as basic schools in the region. In consonance with this, educational curriculum in Ghana at the basic school level covers ways of protecting the natural environment. Increase in school enrolment, attendance will therefore invariably improve the level of conservation of the environment. Pupils, once regular in school, will acquire more knowledge on environmental studies, especially with regard to ways of protecting the environment. This justifies the implications of access to education on natural resource conservation.

3.1.5 Cultural activities

The Way of life of the people of the region is unique. Some of the salient cultural features are:

- Festivals (Zunbenti, Dumba)Traditional Dances/Folk songs (Damba, Dugu, Jingo, Ganga, kobina, kukube, bawa)
- Traditional mud building
- Some aspects of chieftaincy
- Some aspects of religion (traditional, Christianity and Muslim)
- Traditional marriage processes
- Funeral organization etc

3.1.5.1 Dumba or Damba festival

Dumba or Damba festival is an occasion that is celebrated as both religious and traditional festival among the people of the North (Northern Ghana). Dumba is one of the lunar months of Arabs or Islam calendar, which comprises of thirty (30) or twenty-nine (29) days, based on the appearance of the crescent (New moon).

How Dumba is celebrated among the "Waala" people in Upper West region of Ghana. This month Dumba is being celebrated annually to mark the birth of the Holy prophet Mohammed Allah blessing and peace be upon Him. (S.H.W), this month falls within October-December, which is towards the harvesting season. The people, who are mostly farmers will harvest their crops and have enough foodstuff in preparation towards the occasion. They start counting the days from beginning of the appearance of the moon to the 10th day. The people start gathering food items that is the sub chiefs, the chiefs closer to the skin of the paramountcy, chiefs from the various gates. The paramount chief then leads the sub-chiefs and their subject to move from their villages or sub-communities to the paramount chief palace to **"pick rice"** that is to prepare towards the festival.

Actually, the occasion starts from the 10th day of the Dumb to the 17th day. The celebration last for a week or seven days. On the 10th day, the chiefs and the people of the Waala community gather at the court yard of the palace around 2:00 pm to go and usher in the Dumba for celebration. This happens amidst drumming and dancing. This is done spiritually; people who do not trust themselves do not follow them there and children are also not allowed to involve. They go to a place known as **"Fifa Muni" "Fifa"** is a name of a tree, which grows tall and gigantic. There is a whole

under this gigantic "**Fifa**" tree to pick the Dumba for the celebration. "Muni" means under and "**Fifa Muni**" means under "Fifa" tree.

Furthermore, they move to the Durbar ground where the Chief Imam prays for peace and success for the occasion. Invited guest and other dignitaries including the president of Ghana or his representative, the regional minister and District/municipal chief executive deliver their speeches as well as good will messages after the "Wa-Naa" graces the occasion. Besides, drumming, singing and dancing continue till dusk where they will go home to rest for the next day.

In addition, every night of the festivity individual villages entertains the indigents at night with their traditional drumming and dancing style including Dugu, Lolomo, Bawa, Gyanse and Gyagu are demonstrated at the ground.

The 7th day which falls on the 17th of Dumba is the grand final of the festivity. It is on this day that the paramount chief jumps over the cow/bull to mark the end of the Dumba. The cow/bull is tied down and strong men hold it for the chief to jump over. This is to prevent it from disturbing the smooth jumping over process. Moreover, when the chief succeeds in jumping over the cow/bull, strong men always carry the chief in their solders to the house for the chief to bath again and prepare himself for drummers and linguist to go in and usher the chief back to the durbar ground. At this time, the chief dances and expresses his gratitude to the almighty Allah and the people for the success of the occasion. Traditionally, it is believed that during the process of jumping if any part of the body of the chief touches the cow/bull, it signifies failure on his part and hence his death within the same year. This is the

climax of the occasion and the happier moment for the chief and his family after successful jumping over the cow.

Furthermore, after the chief jumping over the cow/bull, the people continue with their usual drumming, singing and dancing in jubilation pending the next morning. This is known as **"Dumba Seogyen yenge"** Literally means **"Dance and sleep outside".**

In the next morning, the elders, chiefs and sub-chiefs meet in the palace to congratulate the chief for his success. At around 4 to 5 o'clock pm, they send the Dumba off. During this period of festivity, all the people come back to the palace for special prayers and after which they dispatch to their various towns and villages to meet their families while praying for the next year occasion.

(**Source**: resource person, Mr Seidu Aminu, a family member of Wa Naa paramoncy)

3.1.5.2 Kobine festival

"Kobine" is the festival celebrated by the Dgaaba people in the Upper West region of Ghana. Each ethnic group of the Dagaaba has a name to the type of festival celebrates to mark the end of farming season every year. The traditional set up of Lawra celebrates Kobine festival and that of the Nandom celebrates the Kukube festival. "**Kobine**" festival, "**Ko**" means farm and "**bine**" means dance Kobine festival mean "farm- dance" festival.

Kobine .festival affectionately called **"Gber Viva"** by the people of Lawra traditionally set up. It is a festival celebrates by the people of Lawra and its surrounding villages in Lawra district. Kobine festival (Gber Viva) is celebrated as a simple traditional event and later on promoted into one of national and international

cultural importance by the effort of Naa Karbo II. The Kobine is celebrated by the people of the paramountcy in acknowledgement of bumper harvest and as sacrifice of thanksgiving to the gods and ancestors. The climax of Kobine festival is usually in the first week of October which is also the first week of the traditional year.

Every year around October, the Kobine (pronounced "**Ko-bin-ah**") festival is celebrated in Lawra, in Lawra Ghana. It serves as celebration and as a homecoming for people who have left Lawra. People come to Lawra from as far away as Accra (the capital of Ghana) or Ouagadougou (capital of Burkina Faso) to join the festivity. The Kobine festival lasts for four days. Most out to town guests arrive on the first day. This gives them a time to visit their families and friends. It's also a day of rest for those who have travelled from far away. The second and third days are the official festival days.

The Kobine festival begins with the procession of the traditional chiefs. Each festival participant is clothed with their most beautiful smocks while walking under huge parasols. The procession is led to the festival ground by ground of Men portraying elephant **"hunters".** The hunters are dressed in traditional hunting attires, including bows and arrow and "**hunt**" a small group of elephants. These elephants are also a small group of men holding huge dried elephant ears, which are waved back and forth. These **"hunters"** and **"elephants"** are accompanied by a large group musicians and drummers from the Lawra chief's (Lawra Naa's) palace. An incredible amount of people watched the performance which starts at the Lawra Naa's palace and continues to the festival ground. There is a lot of dust and excitement in the air.

The following are the importance of the Kobine festival

- Kobine festival celebration bring about families and friends reunion,
- It is celebrated to promote unity and social cohesion in the traditional area,
- The paramount chief uses the occasion as a mean of soliciting developmental projects from the Government for the traditional area.

(**Source**: resource person Mr korbo Denis, a family member of Lawra Naa paramountcy)

3.1.6 The economy of the region

The economy of the Upper West region has been dominated by agricultural activities. However, the situation has begun to change. In 2010 Population and Housing Census of the regional capital, it came out that the public service sector employs about (51.3 %) of the working population, followed by agriculture (30.2 %) and industry (18.4%) (GSS, 2010). Other key sectors of the economy are transport, tourism, communication and energy sectors. However, most of the suburb of the region engaged in the farming activities as main economical source of livelihood.

3.1.6.1 Agriculture

Under the agricultural sector, most of the farmers are engaged in peasant cultivation and the main staple crops grown include millet, sorghum, maize, rice, cowpea, groundnut, and vegetables cultivated on subsistence basis. However, soya beans, groundnuts, and bambara beans are produced as cash crops. Animal rearing is done together with other livelihood activities such as crop production (GSS, 2014).

The state of agricultural production in the Upper West region is not different from that found in Northern part of Ghana, since there is the same ecological zone in these

areas. In the whole area, about 86 % of the population is engaged in agriculture as a source of livelihood dominated by crop production. Most of the farm enterprises are still dominated by semi-subsistence production of staple crops not suitable for profit maximization (Al-Hassan and Poulton, 2007). The farmers are mostly produce in small scale for consumption. As a result, poverty still predominates as average household annual income remains at US$65.00 and poverty head count index was 83.9 % in 2006 (GSS, 2008).

The subsistence farming practiced by households has implications for educational development. The average annual income of households is often small, which is not sufficient in meeting the basic necessities of life (food, shelter, and clothing). Poor households, therefore, find it difficult in meeting the required needs. It is, therefore, anticipated that such poor households will rely heavily on government interventions in subsidising the cost of living through improved ways of farming and marketing agricultural produce. Despite the subsistence nature of production in the region, yet the Ghana statistical farming population (GSFP) relies on agricultural output for its sustainability, thus, calling for Local agricultural production to be encouraged to sustain the livelihood of people in the region as well as Ghana at large.

3.2 Research Design

A research design is the determination and statement of general research or strategy adopted for a particular project. Leary (2001) maintains that it is a blue print or set of plans for carrying out the study. It forms the architecture of every study and explains how the study is going to be constructed (Kumar, 2011). The design therefore, represents plans and procedures for research that span the decisions from broad

assumptions to detailed methods of data collection and analysis (Creswell, 2009). Various designs have been identified in social science. They include Survey, Exploratory, Explanatory, Descriptive, Experimental, among others. According to Kothari (2004), research purposes may be grouped into four categories: Exploration, Description, Diagnosis, and Experimentation.

A flexible research design which provides opportunity for considering many different aspects of a research objective is considered appropriate if the purpose of the research study is that of exploration. Thus, an exploratory study merely leads to insights or hypotheses. If the research study happens to be an exploratory or a formulative one, wherein the major emphasis is on discovery of ideas and insights, the research design most appropriately must be flexible enough to permit the consideration of many different aspects of a research objective. Also, research is categorised as Qualitative, Quantitative, or Mixed methods. Creswell (2009) explains these three approaches in social science. The distinction between qualitative and quantitative research is framed in terms of using words (qualitative) rather than numbers (quantitative), or close ended questions (quantitative) rather than open ended (qualitative) questions. Mixed methods strategy resides in the middle of this continuum because it incorporates elements of both qualitative and quantitative approaches.

Mixed methods research in social science is an approach to enquiry that combines both the qualitative and quantitative forms. It involves philosophical assumptions and using both approaches in the study. Baker (1999) notes that, mixed method enables a researcher to gather evidence from multiple sources to address the questions at hand from different points of view. One advantage of triangulation is that it can broaden

the research and at the same time strengthen the validity of the research. In mixed design, the researcher builds knowledge on pragmatic grounds (Maxcy, 2003) and searching the truth is "what works" (Howe, 1998).

The mixed method design was adopted for this study because of its relative advantages and methodological rigour. According to Creswell and Plano-Clark (2007), the mixed method strengthens more the use of either quantitative or qualitative. Employing both qualitative and quantitative approaches in this study is expected to increase the comprehensiveness of the overall findings, by showing how the qualitative data provides explanations for statistical data to increase the methodological rigour as findings in both phases could be checked for consistency (Creswell, 2009).

The rationale for a mixed design is that neither qualitative nor quantitative methods are sufficient by themselves to bring out details of the situation. Besides, qualitative and quantitative researches have their limitations; hence, the limitations of one method can be offset by the strengths of the other method.

3.3 Sources of Data

Creswell (2009) noted that a mixed method of research design is useful when it is envisaged that when either the quantitative or qualitative approach by itself is inadequate. This method can provide to understand the research objectives though extra time may be needed to collect and analyze both quantitative and qualitative data. Quantitative data, often involves random sampling, so that each individual has an equal chance of being selected, and a sample can be generalized to the larger population of the target area. For a qualitative data collection, purposeful sampling is

used so that individuals are selected since they have the exquisite experience. It is important to recognize both quantitative and qualitative techniques that play useful and complementary role in improving the breadth and depth of understanding of the study in a given area.

Accordingly, both primary and secondary data were used to deal with the objectives of the study. The primary data was collected using market survey and a combination of qualitative and quantitative methods were used.

The questionnaires were designed to explore vegetable marketeers marketing in Upper West region. To complement the structured questionnaires, focus group discussions were conducted. Personal observations were also conducted to triangulate with the structured questionnaire.

Secondary data was gathered from different sources such as; government institutions, Municipal Irrigation and Development Authority, Municipal Agricultural Office, and websites. Published and unpublished documents were also comprehensively consulted to secure relevant secondary information.

3.4 Study Population

The population for the study covered vegetable marketeers in urban and semi-urban communities in the Upper West region.

3.4.1 Sampling and sampling procedure

According to Kane (1998), sampling may be described as the act or technique of selecting and studying characteristics of only some segment of people, situation or items within a given group for the purpose of determining parameters of the whole

population. Sampling is where a portion of the population is taken for a study because the population is large and will consume too much time, money, and effort to accomplish (Pratt and Loizos, 1992). A sample is, therefore, the segment of the population that is selected for investigation (Ofori and Dampson, 2011).

In this study a multi stage sampling procedure was followed in order to collect data from representative samples that would help reflect the situation of the vegetable market chain of specific commodities {tomato, bra (roselle), tomato leaf, agusi leaf, okra, cassava leaf, pepper, amaranths, pumpkin leaf, cabbage, bean leaf, ayoyo (*Chuchurus spp*), green pepper, garden egg, baobob leaf, and onion}. By employing purposive sampling method, Wa Municipality and Wa West districts were selected from the region to host four marketing centres (Wa central market, Fadama market, Wechiau Market, and Dorimon market) which were also selected purposively. One hundred and ninety-six (196) vegetable marketeers were randomly selected from these four marketing centres using Systematic Random Sampling (Saunders, 2009). By employing Probability Proportional to Size (PPS) (Glenn,1992; Ayelech, 2011), number of marketeers to be taken from each market centre was determined from marketeers' stratum until the required sample size was achieved as presented in Table 3.1.

Primary data was largely collected from marketeers and key informants using questionnaire and interview guides, respectively. The data was collected on 20th December, 2017 to 15th February, 2018. Since, this period was the dry-season vegetable production time in the Upper West region.

The determination of sample size was resolved by means of Slovin's sampling formula (Ayelech, 2011) with 95 percent confidence level or 5 % significant level or level of precision (error).

Thus;

$$n = \frac{N}{1+N(e)^2};$$

Where n = sample size;

N= population size and

e = level of precision

$$n = \frac{769}{1+769\,(0.05)^2} = 263.1308811$$

As per the above formula the sample size (n) computed was 263 marketeers. According to Glenn (1992), when the target population is large in the study area, finite population correction for proportions is applied to reduce sample size slightly. This is because a given sample size provides proportionately more information for a small population than for a large population (Glenn, 1992).

Thus, population size (N) {769} in the study area and the sample size (n) {263} can be adjusted using the following formula.

$$n = \frac{n_0}{\frac{n_0-1}{N}+1}$$ After Glenn (1992).

Where, n = adjusted sample size

N = population size (769)

n_0 = sample size computed using previous equation ($n = \frac{N}{1+N(e)^2}$)

$$n = \frac{263.1308811}{\frac{263.1308811-1}{769}+1} = 196.2385$$

Therefore, a total of 196 randomly selected vegetable marketeers obtained from the population size of 769 vegetable marketeers within the study area and from among the four selected marketing centres in the Upper West region. The four selected marketing centres included Wa central and Fadama markets in Wa municipality, and Wechiau and Dorimon markets in Wa West district. The adjusted sample size was distributed proportionally to the randomly selected market centres.

Table 3.1: Sample distribution of vegetable marketeers

Community label	Market centres	Target Population size	Number of Respondents/Adjusted Sample size	% Respondent
Urban	Wa	482	123	63
	Fadama	118	30	15
	Total	600	153	78
Semi-urban	Weciau	117	30	15
	Dorimon	52	13	7
	Total	169	43	22

The places for trader surveys were Vegetable markets in which each estimated marketeers-sample for tomato, onion, okra, and pumpkin leaf, was administered. On the basis of the presence of tomato, onion, okra, and pumpkin leaf, four (4) markets

namely Wa market, Fadama market, Wechiaeu market, and Dorimon market were selected purposively.

Vegetable traders in Wa market, Fadama market, Dorimon marketand Wechiau market were sampled at towns of Wa Municipal and Wa West district respectively by employing snow ball sampling techniques. In total 123 vegetable traders in Wa market, 30 vegetable traders in Fadama market, 30 vegetable traders in Wechiau market, and 13 vegetable traders in Dorimon market were interviewed making a total number of 196 respondents for the study, following the theories of Ayelech (2011) and Glenn (1992).

3.6 Data Collection

Before data collection, the questionnaire were pre-tested using eight traders to evaluate the appropriateness of the design, clarity and interpretation of the questions, relevance of the questions, and time taken for an interview. Appropriate modifications and corrections were made on the questionnaire; and data collected under continuous supervision of the researcher.

3.6.1 Questionnaire

A questionnaire is a document containing questions and other types of items such as statements designed to solicit information on specific issues, themes, problems or opinions to be investigated (Kumekpor, 2002). In designing a questionnaire, researchers consider the working sample units level of understanding of the research issue before settling on either open-ended or closed-ended questions or both (Smith, 1975). The open ended format allowed exploration of the range of possible themes arising from an issue. In closed format, respondents are forced to choose between

several given options. They can be outlined into structured, unstructured, and semi-structured questionnaires. While structured questionnaire provide predetermined closed-ended answers for respondents to choose from in semi-structured questionnaires, open-ended questionnaires are provided and respondents are at liberty to give any answers (Karma, 1999; Twumasi, 2001).

A combination of structured and semi-structured questionnaire was used in this research to solicit relevant responses from vegetable traders. Questionnaires are relatively quick and easy to understand by using codes. Besides, questionnaire enables the researcher to contact a large number of respondents quickly, easily, and efficiently, once the targeted group had been identified. Responses/findings obtained from questionnaire are easy to standardize. For example, every respondent was asked the same question in the same way. This feature of a questionnaire makes it a very reliable method of data collection. It is easier to quantify and make statistical inferences with it. Questionnaires also allow respondents to provide candid opinions, and anonymity is assured.

In this study, questionnaires were administered to vegetable marketeers to gather data on their activities regarding type of vegetables they sell, reasons for selling those types of vegetables, benefits of selling them, nature of help in the sale, problems and challenges facing the industry, packaging method, how they get supply, how they determine pricing, transportation, profit gain or loss, opportunities and prospects in the industry etc. .Questions were also asked on strategies to improve these variables.

3.6.2 Interviews

Face-to-Face interview is the most commonly used technique for conducting a systematic inquiry and most social researchers regard it as a window on the world (Holstein and Gubrium, 1999). This study used interview schedules which served as a guide in conducting a face-to-face interview on the field. The respondents were engaged in a semi-standardized interview where some pre-determined questions were asked in a systematic and consistent order. The essence of a face-to-face interaction is also to create an enabling environment for the respondent to fully participate and express concerns about the subject matter. In this study, interview was granted to the Municipal Director and other related staff of MoFA for them to share their knowledge on the production and marketing of vegetables in the Upper West region. The outcome of the interview was used to identify the respondents for sample size determination and subsequently the questionnaire administration.

3.7 Data Analysis

Both quantitative and qualitative methods were used to analyze the data. Data gathered with questionnaire were coded and entered into the SPSS spread sheet where further transformation was done. Descriptive statistics and Mann Whitney U test were used to describe and analyse the quantitative data collected. In addition, Relative importance index was used to analyse the likert scale type of questions in the questionnaire.

3.7.1 Wilcoxon rank-sum test (Mann Whitney U test)

The Mann Whitney U test was used to analyze data because it is a non-parametric test that does not need the data to be normally distributed. It is an appropriate nonparametric alternative to the two-sample *t*-test (Kerby, 2014).

Hypothesis H_O:$U_1 = U_2$

H_1:$U_1 \neq U_2$

Let n_1 be the number of observations in the smaller sample

n_2 the number of observations in the larger sample.

When the samples are of equal size, n_1 and n_2 may be randomly assigned. In the case of ties (identical observations), we replace the observations by the mean of the ranks that the observations would have if they were distinguishable. The sum of the ranks corresponding to the n_1 observations in the smaller sample is denoted by w_1. Similarly, the value w_2 represents the sum of the n_2 ranks corresponding to the larger sample. The total $w_1 + w_2$ depend only on the number of observations in the two samples and is in no way affected by the results of the experiment. Hence,

if $n_1 = 3$ and $n_2 = 4$, then $w_1 + w_2 = 1+2.....+7 = 28$, regardless of the numerical values of the observations.

In general $1\,(w_1 + w_2) = \frac{(n_1+n_2)(n_1+n_2+1)}{2}$, the arithmetic sum of the integers $1, 2, \ldots, n_1 + n_2$. Once we have determined w_1, it may be easier to find w_2 by the formula $w_2 = \frac{(n_1+n_2)(n_1+n_2+1)}{2} - w_1$.

In choosing repeated samples of sizes n_1 and $n_2$we would expect w_1, and therefore w_2, to vary. Thus, we may think of w_1 and w_2 as values of the random variables w_1 and w_2, respectively. The null hypothesis $U_1 = U_2$ will be rejected in favor of the alternative$U_1 < U_2$ only if w_1 is small and w_2 is large. Likewise, the alternative $U_1 > U_2$can be accepted only if w_1 is large and w_2 is small

The hypotheses proposed in this study are;

Hypothesis 1

H_o: Weekly average net profits of individual tomato marketeers in semi-urban market is not different from individual weekly average net profit of tomato marketeers in urban market

H_1: Weekly average net profits of individual tomato marketeers in semi-urban market centres is different from weekly average net profits of individual tomato marketeers in urban market centres

Hypothesis 2

H_o:: Weekly average net profits of individual onion marketeers in semi-urban markets is not different from weekly average net profits of individual onion marketeers in urban markets

H_1: Weekly average net profits of individual of onion marketeers in semi-urban market centres is different from weekly average net profits of individual onion marketeers in urban market centres.

Hypothesis 3

H_o: Weekly average net profits of individual okra marketeers in semi-urban markets is not different from individual weekly average net profits of individual okra marketeers in urban markets.

H_1: Weekly average net profits of individual okra marketeers in semi-urban markets centres is different from weekly average net profits of individual okra marketeers in urban market centres.

Hypothesis 4

H_o: Weekly average net profits of individual pumpkin leaf marketeers in semi-urban markets is not different from weekly average net profits of individual pumpkin leaf marketeers in urban markets.

H_1: Weekly average net profits of individual pumpkin leaf marketeers in semi-urban market centres is different from weekly average net profits of individual pumpkin leaf marketeers in urban market centres.

3.7.2 Relative importance index (RII)

Relative Importance Index (RII): $= \frac{\sum W}{(A \times N)}$:

Where: W is the weighting given to each factor by respondents, ranging from 1 to 5, A is the highest weight (5) and N is the number of samples in the study. It is used in ranking vegetables in marketing preference (Moon and Worth, 2005).

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

The result and discussion on "Vegetable marketing in Upper West region of Ghana: a comparative analysis of urban and semi-urban communities" based on data collected from one hundred and fifty-three urban vegetable marketeers and forty-three semi-urban vegetable marketeers are indicated in tables 4.1 to 4.6, and figures 4.1 to 4.2.

4.1 Basic Background of Respondents

The research was carried out among one hundred and ninety-six (196) sampled respondent marketeers, of which one hundred and fifty-three (153) were urban vegetable marketeers whereas forty-three (43) were semi-urban marketeers as presented in Tables 4.1.a and 4.1b

Table 4.1a: Basic background of respondents

Background Label		Urban Community marketeers		Urban Community marketeers	
		No of Respondent -s	(%) Respondent	No of Respondent -s	(%) Respondent
Sex	Male	000	000	05	11.63
	Female	153	100	38	88.37
Age	(15-30)	30	19.61	13	30.00
	(31-45)	76	49.67	19	44.19
	(46-55)	29	18.95	09	20.93
	Above 55	18	11.77	02	04.65
Education	Illiterate	89	58.17	28	65.12
	Primary school	19	12.42	05	11.63
	Junior	12	07.84	01	02.32

	high school				
	Middle school	00	0 0.00	03	06.98
	Senior high school	09	05.88	04	09.30
	Nursing T. college	02	01.31	00	00.00
	Arabic education	22	14.38	02	04.65
Marital status	Single	21	13.73	06	13.95
	Married	113	73.85	35	81.39
	Devoice	03	1.96	01	02.33
	Widowed	16	10.46	01	02.33
	Total	**153**	**78.06**	43	**21.94**

Table 4.1b: **Basic background of respondents**

Background Label	Household Size	Frequency	Percent (%) Respondent
Urban marketeers Female	02	04	02.61
	03	09	05.88
	04	11	07.19
	05	17	11.11
	06	18	11.76
	07	27	17.65
	08	22	14.38
	10	13	06.54
	11	02	01.31
	12	06	02.92
	13	03	01.96
	14	04	02.61
	15	03	01.96
	16	02	01.31
	18	01	00.65
	25	01	00.65
Total	**169**	**153**	**100.0**
Semi-urban marketeers Male	09	01	02.33
	10	01	02.33
	13	02	04.65
	15	01	02.33

Female	04	02	04.65
	05	06	13.95
	06	03	06.98
	07	08	18.60
	08	06	13.95
	09	04	09.30
	10	05	11.63
	11	01	02.33
	13	01	02.33
	15	01	02.33
	31	0 1	02.33
Total	166	43	100

4.1.1 Sex of vegetable marketeers

Table 4.1a shows the sex distribution of vegetable marketeers in semi-urban and urban communities. It reveals that 5 (11.63 %) of the respondents in semi-urban markets were males and the remaining 38 (88.37 %) were females. This implies that there are more females engaged in vegetable marketing than males. For urban centre, the Table however indicates all respondents are females. Following this revelation, it can be seen that as one moves from semi-urban area to urban area, vegetable marketing is exclusively left to women and hence, it can be inferred that vegetable marketeers in the region are mostly women.

4.1.2 Age distribution of vegetable marketeers

The researcher classified the respondents into age groups. A young person was defined as one aged less than 31 years, middle-aged between 31 and 45 years, an elderly person between 46 and 55 years, and very aged person more than 55 years Table 4.1a shows the age distribution of vegetable marketing respondents. It reveals that 19 (44.2 %) of the marketeers in semi-urban centres are within the age bracket of 31-45 years and 2 (4.7 %) in the age bracket of 55 and above. The age brackets, thus

15-30 years and 46-55 years are also represented by 13 (30 %) and 9 (20.9 %) respectively. On the other hand, for urban marketeers, 76 (46.7 %) and 29 (18.95 %) represent the age brackets of 31-45 years and 46-55 years respectively. Respondents in the age brackets, 15-31 years and 55years above are also represented by 30 (19.61 %) and 29 (11.77 %) respectively. The frequency distribution among these age brackets indicates that majority of marketeers both in urban and semi-urban are young people as old (55 years and above) respondents are in the minority of people involved in vegetable marketing. However, the dominant age group in this business in both areas in Upper West region is middle-age (31-45 years) people.

4.1.3 Educational status of vegetable marketeers

Majority of the marketeers in semi-urban market centres are illiterate; whilst only 4 (9.30 %) marketeers had SHS level of education, 28 (65.12 %) are illiterate; 5 (11.63 %) attained primary level of education, 1 (2.32 %) marketeer reached junior high school level, and 2 (4.65 %) acquired Arabic education as indicated in Table 4.1a. Unlike the semi-urban markets, marketeers in the urban centres 2 (1.31 %) of marketeers had tertiary education though more than half 87 (58.17 %) of them are no educated. It can be inferred that majority of marketeers are not educated and thus, may lack some fundamental knowledge in vegetable marketing.

In fact, young people, and educated show some active participation in the urban area as compared to semi-urban area is in itself an indirect indication of rising urban-employment levels in urban areas.

4.1.4 Marital status of vegetable marketeers

The result of material status of semi-urban marketeers is also illustrated in Table 4.1a. It shows that the majority of the marketeers are married; thus 35 out of 43 are married representing 81.39 %. Single, devoice and widowed are also recorded as 13.95 %, 2.33 % and 2.33 % respectively. Table 4.1a reveals further that 113 (73.85 %), marketeers in urban market centres are married, 21 (13.73 %) are single, 16 (10.46 %) are widowed and 3 (1.96 %) are devoiced. It can therefore be concluded that more married respondents are actively involved in vegetable marketing in both market centres.

4.1.5 Household size distribution of vegetable marketeers

The results of household size are illustrated in Table 4.1b. The house hold sizes are ranging from 2 to 31 people. The least house hold size is 4 and the highest is 31 people in the semi-urban market. Table 4.1b revealed that the least house hold size number is 2 in the urban market centres and the highest household size is 25. In many cases, business profit will be affected if the head of a large household size is not into large commercial vegetable marketing or other ventures to help cushion household expenditure.

Table 4.2: Characteristics and preference distribution in semi-urban and urban areas

Vegetable type	Marketeer preference (Rank)	Characteristic (Shelf life)
Tomato	Ranks first in both areas	About two weeks and influenced by cultivar factor, production condition, nature of storage and transportation

Onion	Ranks second in urban area and fourth in semi-urban area	About 6 weeks and influenced by nature of storage, production condition and as well as cultivar factors
Okra	Ranks third in urban and second in semi-urban area	About one week and influenced by cultivar factor, production condition, and nature of storage.
Pumpkin leaf	Ranks fourth in urban area and third in semi-urban	Less than two days.

4.2 Characteristics and Preference Distribution in Semi-urban and Urban Areas

Table 4.2 revealed that tomato is 1st ranked among the identified vegetables by the entire respondents of both urban and semi-urban marketeers. It may be due to its equal demand in both areas as consumers can not do without it. Tomato has two weeks shelf life and can be influenced by many factors amongst cultivars factors, transportation, nature of storage, and production condition. Onion on the other hand, is ranked second in urban market but 4th in the semi-urban market centre. The fourth ranking of onion in the semi-urban area is not strange because it is not a major ingredient of food but a spice, as a result, a lot of people in semi-urban area normally do without it, hence less demanded and also its investment cost is higher as compared to other vegetables ranked below. Onion has six weeks shelf life due to its nature of storage, production condition and as well as cultivar factors.

Okra is ranked third in urban markets but ranked second in semi-urban marketing. This may be due its high consumption patronage in semi-urban area compare to the urban area. Urban consumers prepare various meals whilst semi-urban consumers dwell much on "Tuo-zaafi" (Tz) as their main meal and okra is mostly used in the preparation of soups for TZ. It can last for about one week; however this can be influenced by cultivar factor, production condition, and nature of storage.

Pumpkin leaf is ranked fourth and third in semi-urban and urban markets respectively. It has very short shelf life about less than two days.

The reasons for its third ranking in semi-urban market are not different from that of okra. In general the ranking and choice of vegetables is determined by demand, supply, cost and profits associated with them. Besides, From the marketer's point of view, among the factors that determine the choice of vegetable to trade are shelf life, consumer preference, marketing cost, profit associated with the vegetables.

Table 4.3: Cost-benefit characteristics of the various vegetables

Semi-urban Marketeers				
Vegetables type	**Tomato**	**Onion**	**Okra**	**Pumpkin leaf**
Average order price per unit (Gh¢)	90	200	160	55
Average total sales price (Gh¢)	180	400	195	165
Gross margin profit (Gh¢)	90	200	35	110
Average selling time (Days)	2	4	2	1
Urban Marketeers				
Average order price per unit (Gh¢	90	195	170	60
Average total sales price (Gh¢)	175	350	190	120
Gross margin profit (Gh¢)	85	155	20	60
Average selling time (Days)	3	4	4	1

4.3 Cost-benefit Characteristics of the Various Vegetables

The study looked at urban and semi-urban markets where four exotic vegetables, namely tomato, onion, okra, and pumpkin leaf were considered. The four vegetables give a fair representation of the business because they are popular sold at nearly all markets.

Table 4.3 reveals the vegetables that are popularly sold by marketeers in both market centres viz: tomato, onion, okra, and pumpkin leaf. A unit referred a measure used for orders by the local marketeers. The tomato is packaged in 45 kg standard paper boxes as units, onion is packaged in 38 kg standard small sacks, okra is packaged in standard 18.75 kg sacks, and pumpkin leaf is packaged in standard sacks of 24 kg. The Table further reveals the average order prices, average total prices, gross margin profits and average selling times of the popular vegetables in both market centres.

4.3.1 Cost-benefit of tomato marketeers in the sample study areas

Table 4.3 shows that the average tomato order per unit cost is Gh¢ 90 in both market centres. The average total sales price for semi-urban and urban are Gh¢180.00 and Gh¢175.00 respectively. For gross margin profit, semi-urban and urban record Gh¢90.00 and Gh¢85 respectively. Comparatively, the average profit margin of tomato in semi-urban centre is greater than that of urban. Also a unit of tomato is sold within average of 2 days in the semi-urban centres but 3 days in urban centres. As results one can conclude without constriction that tomato vegetable sales in semi-urban market centres are better than that of urban market centres.

4.3.2 Cost-benefit of onion marketeers in the sample study areas

Table 4.3 reveals that a unit of onion is sold within 4 days in both market centres, but the average order price in semi-urban and urban market centres are Gh¢200.00 and Gh¢195.00 respectively. The Table further indicates that the average sales price of onion in semi-urban market is Gh¢400.00 and that of urban market is Gh¢350.00. Intuitively, it is expensive to order in semi-urban markets than urban markets. Furthermore, it is profitable to do onion marketing in semi-urban markets than urban markets because the average profit margin of semi-urban market is higher than that of urban markets. This may be because it is less competitive commodity in semi-urban areas as fewer marketeers engage in its sale there.

4.3.3 Cost-benefit of okra marketeers in the sample study areas

Table 4.3 demonstrates that the average order price, average total sales and gross margin price of okra are lower in semi-urban than that of the urban. However, there are many differences between the gross margin profits of the two areas because of differences in the average selling time. In semi-urban, the average selling time of a unit of okra is 2 days and Gh¢35.00 as gross margin profit but sold in urban within 4 days for Gh¢20.00 as gross margin profit. Inferentially, okra business in semi-urban markets is better than its business in urban markets.

4.3.4 Cost-benefit of pumpkin leaf marketeers in the sample study area

Although both market centres have same average selling times as revealed in Table 4.3, average total sales (Gh¢165.00) and gross margin profit (Gh¢110.00) of pumpkin leaf in semi-urban market centres are higher than that of urban centres. The reason

may be that most marketeers do self-production and supply as well in the semi-urban areas.

A comparative of the popular vegetable was made based on the order prices in semi-urban and urban areas. Except onion whose order price was Gh¢200.00) Gh¢5.00 higher than that in urban area), semi-urban total sales price and their profits are relatively higher. This could mean that onion is not cultivated in the region and the urban marketeers are operating in a more competitive market environment than the semi-urban marketeers.

Also the average selling time reflects the demand associated with the vegetables from a consumer's point of view. Ranking the vegetables according to the number of days it takes to sell a unit indicates that pumpkin leaf sells faster than the other three vegetables, tomato and okra sell faster in semi-urban area than urban area. The average selling time increases as one moves from semi-urban area to urban area, does the gross margin profit, except onion with the same average selling time in both areas. Therefore, the average selling time and gross margin profits should be the basis upon which marketeers can set strategy to increase their profits turnover.

Table 4.4: Value of business handled in a week (costs vs benefits)

Value of business in group	Number of marketeers	Total value (Gh¢)	Average gross margin profit (Gh¢)	Avg. Net profit Gh¢
Semi-urban marketeers				
Less than 1,000.00	38	13,156	246.66	232.18
1,000.00-2,000.00	4	5,355	1,092.50	1,068.50
Above 2,000.00	1	9,000	8,400	8,362
Urban marketeers				
Less than 1,000.00	133	51,851	245.71	221.89
1,000.00-2,000.00	17	20,390	959.82	913.10
Above 2,000.00	3	9,015	2465	2,412.33

Average gross margin profit is obtained by: $\frac{Total\ sales - Total\ cost\ of\ vegetables}{Total\ number\ of\ marketeers\ in\ the\ group}$

Average net profit is obtained by: $\frac{Total\ sales - Total\ cost - Total\ operation\ expenses}{Total\ number\ of\ marketeers\ in\ the\ group}$

4.4 Value of Business Handled in a Week (Costs vs Benefits)

Table 4.4 shows the performance of marketeers by examining the volume of their business in a week and associated benefits. It is discovered that majority of both semi-urban and urban marketeers handled relatively lower volumes of business. However, the large volume of the marketeers in marketing centres attained higher average gross margin profits and average net profits, even though semi-urban marketeers make higher average net profits than the urban counterparts.

By means of these revelations, the researcher can conveniently say that marketeers in groups are likely to earn more profits than single marketeers and higher capital investments result higher returns.

Table 4.4 further reveals that the larger the business value, the larger the average net profit thus confirming the earlier assertion that as marketeers in group will have larger income, average large net profit will be recorded

In a broad-spectrum, both average gross margin profits (GH¢3,246.39) and net profits (GH¢3,220.89) per units order are higher for marketeers in semi-urban areas than they are (gross margin profits (GH¢ 12223.52) and net margin profits (GH¢1182.44)) for marketeers in urban areas. This implies marketing of vegetables in semi-urban area is better than in urban areas because urban marketeers operate in more competitive market structure and seek to increase profits through handling higher

volume of business which is by the way not different to that of semi-urban marketeers as instrument to acquire higher profits lies on bargaining power of the prices

Table 4.5: Table: Percentage distribution of markings' costs/week

Marketing cost as percentage of total					
Value of Business (Gh¢)	**Total Value of marketing (Gh¢)**	**Transpor -tation (Gh¢)**	**Packaging (Gh¢)**	**Market Levy (Gh¢)**	**Others (Gh¢)**
Urban Market Centres					
Less than 1,000.00.	51,851	1,489.1	802	363	514
1,000.00-2,000.00	20,390	464	208	36	87
Above 2,000.00	9,015	69	59	4	26
Semi-urban market centres					
Less than 1,000.00	13,156	224	119	76	131
1,000.00-2,000.00	5,355	40	41	8	7
Above 2,000.00	9,000	17	7	2	12

4.5 Percentage Distribution of Marketing Costs/ Week

Table 4.5 shows the average value of business and distribution of marketing costs associated with the volume of business handled in a week. It indicates clearly that transportation cost contribute significantly to total marketing cost in urban marketing than semi-urban marketing. This is so because most marketeers in the urban area travel extensively searching for supplies from distant places and incur daily transportation cost in a week whilst their semi-urban counterparts have their cost weekly. Poor feeder roads also make transportation expensive in urban areas as they get supplies from semi-urban and rural areas. Additionally, packaging cost is more significantly larger in urban area than in the semi-urban area reflecting high degree of improved customers' services. This is so because customers in urban area are very conscious about the quality of packaging since packaging may reflect quality of they

contain items. Marketeers in semi-urban area spend less on packaging materials because most of them are self-producers and customers are not very conscious about the quality of packaging service since they don't encounter containment for longer hours.

The result also revealed that there is higher cost of market levy in urban market than that of semi-urban market due to the frequencies of sales within a week in urban area even though it is taxed equally.

Both marketeers have extra expenses in the form of other costs reflecting the level of the way they are handling the vegetables. However, the additional cost in the urban areas is higher than that of the semi-urban area due to the cost of places of convenient and high cost of foods in this area. The perishable nature of vegetables contributes greatly to the additional cost in vegetable marketing and hence the need for the provision of appropriate storage facilities.

Table 4.6: Related marketeer issues

Community label	Marketeer issues														
	Business organization		Level of investment		Future intention to do other business		Sources vegetables			Future intention to continue		Properties owned by marketeer		Group of membership	
	Single proprietorship	Group	Yes	No	Yes	No	Nearby area	Distant areas	Both	Yes	No	Yes	No	Yes	No
Semi-urban	41 (95 %)	2 (5 %)	24 (56 %)	19 (44 %)	29 (67 %)	14 (33 %)	28 (65 %)	12 (28 %)	3 (7 %)	26 (61 %)	17 (39 %)	21 (49 %	22 (51 %)	18 (42 %)	25 (58 %)
Urban	145 (95 %)	8 (5 %)	40 (26.%)	113 (74 %)	89 (58%)	64 (4%)	65 (4%)	77 (50 %)	11 (7. %)	101 (66 %)	52 (34 %)	43 (29 %)	110 (71 %)	39 (25 %)	114 (75.%)

4.6 Business Organization

It is obvious that majority of the vegetable marketeers operate as single proprietors in the Upper West region with reference to one hundred and forty-five (145) of the urban marketeers of the respondents representing 94.8 % operating as single proprietors and Forty-one (41) respondents in semi-urban markets as single proprietorship. However, only eight (8) and two (2) respondents in urban and semi-urban market centres respectively belong to various marketing business organizations.

This is possible due the small amount of capital investment required to go into this business and therefore no need to mobilize huge initial capitals through formation of groups. Fewer marketeers that operate in groups are family related to enable each other raise capital to expand the scope of the business as well to help introduce others to the business.

4.7 Level of Investment

Table 4.6 reveals that few marketeers in the urban area have other investments. Out of 153 urban marketeers only 40 have other investments and 24 of marketeers in semi-urban have other investment ventures. The Table further reveals that 14 of semi-urban marketeers do additional investments because of profit at all times and 10 of them are engaged in other investment to increase their business capital. This will aid them get more produce to sell in addition to their farm produce. Eighteen (18) of the semi-urban marketeers expressed no interest in any investment because they have expertise in handling the vegetable business and hence their being content with it.

Among urban marketeers, 92 of them are not engage in additional investment due to lack of funds. However, 15 of the urban marketeers have the interest in handling only this vegetable business. This implies that the majority of urban marketeers go into this business due to its small amount requirement to operate. The semi-urban marketeers those who are not gone into other ventures in contrast, is because they produce vegetables, supplies themselves and supply to the urban marketeers as well.

4.7.1. Future intentions of the marketeers

Table 4.6 reveals that most of the marketeers have intentions to do other investments if they have enough capital. Among the urban marketeers, 93 of them expressed their interest and 29 semi-urban marketeers have the zeal in other businesses to cushion up their income.

4.7.2 Future intentions of marketeers to continue vegetable business

Table 4.6 reveals that most urban marketeers have no intention to continue with vegetable business once they have enough capital to start up an alternatively high business venture. Only 25 of urban_marketeers wished to continue even if they have enough capital. This implies that most urban marketeers use this business as stepping stone to spring up to some more lucrative businesses. The main reasons are that it is not lucrative and produce, easily deteriorate leading to losses. On the other hand, few semi-urban marketeers have intention of abounding this business even though enough funds are in their custody. It may be assumed that it is because the main occupation is farming

4.7.3 Properties of vegetable marketeers

Table 4.6 reveals that both the urban and semi-urban marketeers possessed other properties besides the vegetable marketing aspect. These are buildings, goats, sheep, poultry, vehicles, and motor bicycles. In the semi-urban category, 48.8 % possessed other properties whilst 51.2 % have none. For urban area, 28.1 % have other properties whereas 71.9 % have no such. Comparatively fewer marketeers in the urban area own other properties as compared to the semi-urban marketeers. However, it is not possible for the researcher to quantify and convert the assets reported by the marketeers into monetary.

4.7.4 Group membership of vegetable marketeers

Table 4.6 discovers the result that majority of the marketeers do not belong to any group; for instance in urban area 114 have no membership group. This represents 74. 51 % which is a very good mark; on the other hand 25 of the semi-urban marketeers representing 58.14 % which is also a credit mark depict the obvious of few marketeers joining to membership groups. Relatively, the urban marketeers joined about seven (7) different groups while that of the semi-urban marketeers only belong to the susu group to raise their capital to carry out their business operation smoothly. Majority of the marketeers in both market centres reasons of joining the groups they belong is to raise enough capital to expand their business. They are 43 people of entire memberships of the marketeers have this same reason, representing 75.44 %. Therefore, tin assumption with enough capital in hands of marketeers the available of marketing groups will be insignificant

4.8 Acquisition and Availability of Vegetables

Table 4.6 displays that 72.10 % of the marketeers in semi-urban area acquired vegetables in nearby source whilst 57.52 % of the urban marketeers acquired theirs from distant places. Comparatively, the semi-urban marketeers have more access to the vegetables than to that of their urban counterpart marketeers because their main occupation in the rural and semi-urban areas is farming and most of the populace do farm to supply or to sell.

4.8.1 Reasons for purchasing vegetables at nearby

The dominant reason for acquiring vegetables at nearby areas for semi-urban marketeers is the fact that marketeers (61.29 %) do self-production whereas those of the urban marketeers obtain theirs from farmers and wholesalers. They are well established wholesalers in urban areas even though production is done at semi-urban areas. Because large scale producers prefer selling their produce to wholesalers in the urban areas because it is less risky, due to high demand in urban areas.

4.8.2 Reasons for marketeers purchasing vegetables at distant areas

Among the reasons for purchasing vegetables at distant areas by semi-urban marketeers is the absence of production in large quantities in nearby areas. Onion crop production is not done in the region in large quantity but outside of the region. Hence, most of the urban marketeers purchase them from Kumasi and Burkina Faso because they produced in large quantity at less cost. In a broad-spectrum, purchasing of vegetables outside as well as far places is due to lack of supply at all times in nearby places.

4.8.3 Getting vegetable supply from distant sources

Urban marketeers representing 71 of the respondents indicate that they get supply at any time after have seen order placed. This implies that supply is available at all times of the year and this is not different in semi-urban markets. Some of these distant sources include, Tachiman, Kumasi, Leo, and Bobo at Burkina Faso, and Navirongo in Upper East region.

4.8.4 Reasons why marketeers experience scarcity of vegetable supply

Majority of both urban and semi-urban marketeers experience scarcity of vegetable supply in rainy season due to the fact that producers tend to produce their major crops in Rainy season. In addition, many producers in rainy season produce only for sustenance. As a result, only few are engaged in commercial vegetable production. Hence, the root cause of the scarcity.

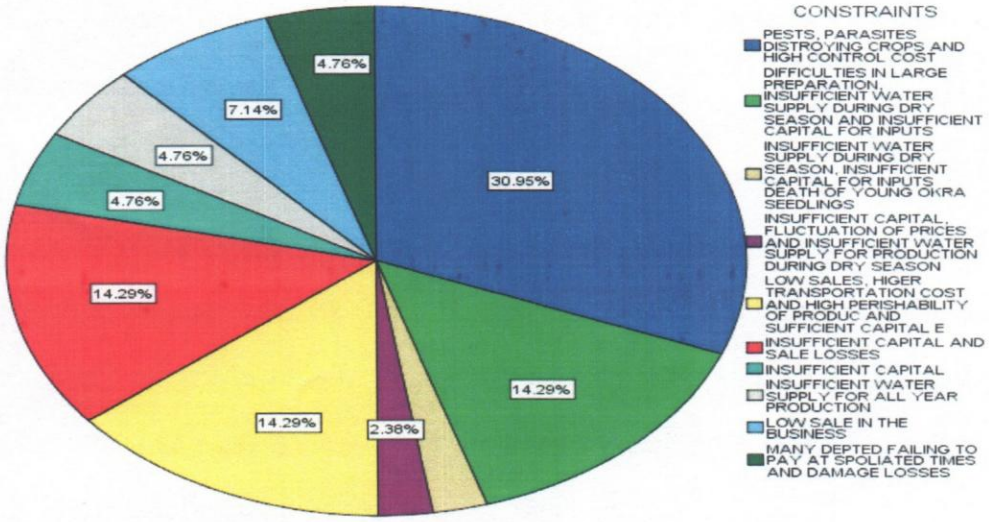

Figure 4.1: Constrains face semi-urban vegetable marketeers

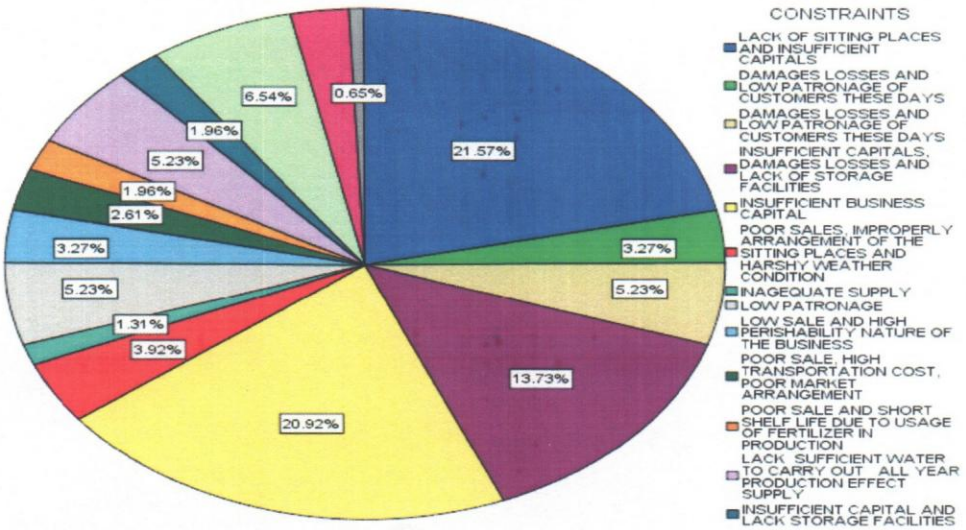

Figure 4.2: Constrains face urban vegetable marketeers ...

4.9. Challenges and Constrains Facing Vegetable Marketeers

Figures 4.1 and 4.2 show the challenges and constrains facing marketeers in both market centres. It is observed that almost all the marketeers face the same constrains. However, urban marketeers' constrains relate to marketing whilst that of semi-urban relate directly to production because they sometimes do self-production to do self-supply. For instance, majority of urban marketeers (20.92 %) are faced with insufficient business capital whilst those of semi-urban marketeers (30.23 %) are pests, and parasites, and theirs control cost. Furthermore, 21.57 % of urban marketeers face lack of sitting place cum insufficient capital as constraints that disturbed them all the time.

Additionally, same number of respondents (13.95 %) in semi-urban markets reveal the following viz: Difficulties in land preparation, insufficient water supply during dry season and insufficient capital for inputs, low sales, higher transportation cost, high perishability of produce, insufficient capital and sale losses.

The figures further revealed that no marketeer in both market centres has any government support to get a shed but born out of their own efforts. This undoubtedly place more stress on their few capital as they must get sheds to sit for business. Nonetheless, others with struggling businesses sit in the sun, despite the consequences of that.

However, with regards to experience of any injustice, 37.3 % of respondents in urban marketeers are faced with injustice in their business operations whilst 16.3 % of semi-urban marketeers suffer various forms of injustice. Unfortunately, there is no opportunity for these injustices to be addressed.

No marketeer in urban market has any form of skill training in the business they operate. However, 4 (9.3 %) of the semi-urban marketeers had skill training but related to farming of the vegetables.

The unreliable supply of vegetables during rainy season is one constrain that causes market fluctuation.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATION

In this chapter, the summary and conclusions of the study are presented in sections 5.1, 52, and 5.3 respectively. The chapter also presents policy recommendations and suggestions for future research.

5.1 Summary

The study examined the comparative marketing of urban and semi-urban vegetable marketeers in upper west region of Ghana. The specific objectives of the study were (i) to investigate and compare the profit margins for urban and semi-urban marketeers so that those willing to go into these businesses could be adequately advised or informed, and (ii) to identify the marketing problems being faced by the vegetables marketeers in order to learn what role the government could play to improve and encourage vegetable marketing.

Primary data was collected from 196 respondents with the aid of structured questionnaire. The study revealed that both gross profits and net profits of between of semi-urban marketeers is higher than that of urban and marketeers.

Furthermore, the industry is faced with a myriad of challenges and problems and among them is including insufficient capital. The urban challenges are directed to marketing issues whilst that of semi-urban related to farming.

Additionally, 100 % and 90.2 % of semi-urban and urban marketeers respectively, responded that there is no representation or fair hearing when they are faced with any inconvenience, injustice or mishandling in their marketing operations.

5.2 Conclusion

The cost- benefit analysis indicates that both the gross margin profits and net profits per unit order are higher for marketeers in semi-urban areas than they are for marketeers in urban areas.

Urban marketeers operate in a more competitive market structure and seek to increase their profits through handling larger volumes of business as opposed to semi-urban marketeers whose instrument to seek higher profits lies in the price.

The study indicates that some of the problems the marketeers face are unique and area specific while others are common for every vegetable marketeer in Upper West region. Lack of representation, lack of support services, and lack of appropriate business skills, are among the common problems, while lawlessness and business fluctuation tend to be unique and area specific.

In general, marketeers do not make meaningful investment in their business. The women who dominate the business undertake it purely to supplement the income of husbands and contribute to household food security.

Some vegetables are more appealing in certain areas than others and thus earn more.

5.3 Recommendations

In view of the above conclusions, this study makes the following recommendations regarding vegetable marketing in the study areas:

In order for marketeers to make profit, they should select vegetables that give them reasonable profits; they should select vegetables that will give them reasonable returns.

In order to have more representative results, future research involving a similar study should be undertaken to cover rural areas or peri-urban areas.

There is need for governments to formulate and strengthen the rules regarding vegetable marketing in order to protect the marketeers, and ensure that vegetables are sold under hygienic conditions.

Vegetable researchers should extend their studies to aspects of vegetable marketing rather than focus solely on vegetable production.

Government should lobby for formulation of some institutional framework through which marketeers could be represented and through which business skills could be enhanced.

The researchers need to determine the vegetable consumption per capita. This information could be very useful to policy makers and planners but has never been made available.

The government should design the educational curriculum to cover the knowledge of learning agriculture as alternative self-livelihood ventures rather than to be employed by government and other agricultural related non- government organizations.

Governments need to support the growing youth with initial capital to go into vegetable business to reduce unemployment number in the nation Ghana.

A similar study could be conducted in other regions.

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APPENDIX
QUESTIONNAIRE ON:

"VEGETABLE MARKETING IN UPPER WEST REGION OF GHANA: A COMPARATIVE ANALYSIS OF SEMI-URBAN COMMUNITIES.

URBAN AREA QUESTIONNAIRE"

PLEASE TICK [√] THE APPROPRIATE BOX(ES) WHERE APPLICABLE

BACKGROUND OF RESPONDENT

1. **Sex**
   i. [] Male ii. [] Female
2. **Age**
   i. [] (15 – 30) ii. [] (31 – 45) iii. [] (46 - 55) iv. [] (Above 55)
3. **Level of Education**
   i. [] Illiterate ii. [] Primary School iii. JHS iv. Middle School
   v. [] S. H. S vi. [] O' Level vii. [] A' Level viii. [] Vocational School
   ix. [] Technical School x. [] Basic Certificate (Polytechnic)
   xi. [] D. B. S (Polytechnic) xii. [] H. N. D (Polytechnic)
   xiii. [] Nursing training college xiv. [] Teacher training college
   xv. [] Diploma xvi. [] Arabic Education
   xvii. [] Arabic/English Education xviii. [] First Degree (University)
   xix. [] Masters (University) xx. [] doctor (University
4. **Marital status**
   i. [] Single ii. [] Married iii. [] Devoiced iv. [] Widowed v. [] Widower
5. **House hold size**
   i. How many members make up your house hold? Number: .....

B. VEGETABLE CHARACTERISTICS AND PREFERENCES DISTRIBUTION

1. **Vegetables involved in the marketing.**
   i. [] Tomato ii. [] Okra iii. [] Pumpkin Leaf iv. [] Onion
   v. [] Cassava Leaf vi. [] Amaranths (Alifu Leaf) vii. [] *Chorchorus oliritorus* (Ayoyo Leaf) viii. [] Bean leaf ix.
   [] Baobab Leaf x. [] Cocoyam Leaf
   xi. [] Pepper xii Cabbage xiii. [] Others: .....

(a) **Rank the vegetables above by your preference – see below.**

- First: .....- Second: .....- Third.....- Fourth: .....- Fifth:.-.....

Sixth: .....- Seventh: .....- Eighth: .....- Ninth: .....- Tenth: .....
Eleventh: .....- Twelfth: .....-Thirteenth: .....

(b) What are the reasons for those rankings in (a) above? -With respect to appearance, firmness, and long storage life or shelf life.

-First: ..... - Second: .....

- Third: .....- Fourth: ..... - Fifth: .....

.- Sixth: .....- Seventh: ..... - Eighth: .....

.- Ninth: ..... - Tenth: .....- Eleventh: .....

- Twelfth: .....-Thirteenth: .....

(c). **Characteristics of the vegetables mentioned above**

- **Shelf Life: .....**

Tomato: .....Okra: .....

Pumpkin Leaf: .....Onion: .....

Cassava Leaf: .....Amaranths (Alifu Leaf): .....

Chorchorus oliritorus (Ayoyo Leaf): .....

Bean leaf: .....Baobab Leaf: .....

Cocoyam Leaf: .....Pepper: .....

Cabbage: .....Others: .....

- **What factors influence the shelf lives indicated above?**

Tomato: [] Cultivar factor [] Nature of storage [] Packaging [] Transportation

[] Production Conditions [] Others

Okra: [] Cultivar factor [] Nature of storage [] Packaging [] Transportation [] Production Conditions [] Others

Pumpkin Leaf: [] Cultivar factor [] Nature of storage [] Packaging [] Transportation

[] Production Conditions [] Others

Onion: [] Cultivar factor [] Nature of storage [] Packaging [] Transportation [] Production Conditions [] Others

Cassava Leaf: [] Cultivar factor [] Nature of storage [] Packaging [] Transportation [] Production Conditions [] Others Amaranths (Alifu Leaf): [] Cultivar factor [] Nature of storage [] Packaging [] Transportation [] Production Conditions [] Others *Chorchorus oliritorus* (Ayoyo Leaf): [] Cultivar factor [] Nature of storage [] Packaging [] Transportation [] Production Conditions [] Others

Bean leaf: [] Cultivar factor [] Nature of storage [] Packaging [] Transportation [] Production Conditions [] Others

Baobab Leaf: [] Cultivar factor [] Nature of storage [] Packaging [] Transportation [] Production Conditions [] Others

Cocoyam Leaf: [] Cultivar factor [] Nature of storage [] Packaging [] Transportation [] Production Conditions [] Others

Pepper: [] Cultivar factor [] Nature of storage [] Packaging [] Transportation [] Production Conditions [] Others

Cabbage: [] Cultivar factor [] Nature of storage [] Packaging [] Transportation [] Production Conditions [] Others

Others: [] Cultivar factor [] Nature of storage [] Packaging [] Transportation [] Production Conditions [] Others

C. COST - BENEFIT CHARACTERISTICS OF THE VARIOUS VEGETABLES

	Average Order Price Per Unit (GH¢)	**Average total Sales Price (GH¢)**	**Gross Margin Profit (GH¢)**	**Average Selling Time (days)**
Tomato				
Okra				
Onion				
Pumpkin Leaf				
Cassava Leaf				
Amaranths				
Cocoyam Leaf				
Pepper				
Ayoyo				
Cabbage				
Others				

D. VALUE OF BUSINESS HANDLED IN A WEEK (COSTS VS BENEFITS)

Value of Business (GH¢)	**Volume of Business**	**Total Value (GH¢)**	**Average Gross Margin Profit (GH¢).**	**Average Net Profit (GH¢)**

Less than 1,000				
1,000 – 2,000				
Above 2,000				
Others				

E. PERCENTAGE DISTRIBUTION OF MARKETING COSTS PER WEEK

Value of Business (GH¢)	Total Value of Marketing (GH¢)	Transportation	Packaging	Market levy	Others
Less than 1,000					
1,000 – 2,000					
Above 2,000					
Others					

F. BUSINESS ORGANISATION

1. **Are you a single proprietor? That is, operating/working/marketing as an individual?**
   i. [] Yes ii. [] No
   Why? .....
2. **Do you belong to any of the following:**
   i. [] Organisation Why? : .....
   ii. [] Association Why? : .....
   iii. [] Group Why? : .....
   iv. [] Society Why? : .....
   v. [] Others Why? : .....

G. LEVEL OF INVESTMENT

1. **Do you have other investment ventures?**
   i. [] Yes What are they? .....Why? .....
   ii. [] No Why?: .....
2. **What other properties/assets do you have apart from vegetable marketing?**
   i. [] Self built house(s) iii, [] Goats iv [] Cattle
   ii. [] Vehicle v. [] Sheep vi. [] Others

H. FUTURE INTENTION (S) OF THE MARKETEERS.

1. **Do you have any intention(s) for any different business in case you have enough capital to start higher paying businesses?**
   i. [] Yes
   What business? .....Why? .....
   [] No.....Why? .....
2. **Do you intend to continue vegetable marketing if even you are capable of moving into more lucrative business?**
   i. [] Yes Which business? .....Why? .....

ii. [] No Why? .....

I. ACQUISITION AND AVAILABILITY OF VEGETABLES

1. **Where do you acquire the vegetables you are marketing with from?**
   i. [] Nearby farmers. Eg. ..... Why? .....
   - How often do you have supplies from these nearby farmers?

   ii. [] More distant place(s). Eg.....
   Why? .....
   - How often do you have supplies from these distant places? .....

2. **Which season do you experience scarcity of these vegetables?**
   i. [] Rainy season
   Why? .....
   ii. [] Dry season Why? .....

3. **Which of the markets do you prefer to sell these vegetables?**
   i. [] Urban market Why? .....
   ii. [] Semi-urban market
   Why? .....

4. **Where do you obtain the vegetables from?**
   i. [] In town Why? .....
   ii. [] Outside the townWhy? .....
   How far? .....

5. **Is there any organised wholesale market for the vegetables obtained from town?**
   i. [] Yes Why? .....
   ii. [] No Why? .....

6. **Is there any organised wholesale market for the vegetables obtained from outside town?**
   i. [] Yes Why? .....
   ii. [] No Why? .....

7. **Is supply of the vegetables you are dealing with reliable during rainy season?**
   i. [] Yes Why? .....
   ii. [] No Why? .....

8. **Is supply of the vegetables you are dealing with reliable during the dry season?**
   i. [] Yes Why? .....
   ii. [] No Why? .....

J. NATURE OFTHE PROBLEM(S) IN THE BUSINESS

1. **What constrains/challenges do you face/encounter in the business?** .....

   (a) Are you occasionally given some training to enhance your business skills?
   i. [] YesBy who? .....
   What training and how often? .....
   ii. [] No Why? .....

Are there any associations or organizations through which your grievances can be addressed?

i. [] Yes

- Which association/organization?..... How is it done? .....
  - Does the association or organization have any understanding of business?
    i. [] Yes Why? .....
    ii. [] No Why? .....

(b) **Do you suffer any injustices and harassments in the business?**
i. [] Yes What type/form of injustices/ harassments? .....
- By who? .....
- What time of the business period? .....Why? .....

ii. [] No Why? .....

(c) **Do you encounter any unfair competition in the vegetable business?**
i. [] Yes Explain: .....
ii. [] No Why? .....

(d) **What is the situation of support services?**
Building under which business is conducted: ..... Toilet facilities: ..... Availability of water:..... Urinal: .....Availability of transport to source of vegetables: ..... .Information on source of supply of vegetables: ..... Information on prevailing prices at the source: .....

(e) **Do you encounter any vegetables researcher(s)?**
i. [] Yes
- On what matters? .....

ii. [] No
Why? .....

(f) **Which season is vegetable supply favourable?**
i. [] Rainy season Why? .....
ii. [] Dry season Why? .....

(g) **Which of the seasons do good profits prevail?**
i. [] Rainy season Why? .....
ii. [] Dry season Why? .....

(h) **Are you always able to do rainy seasoning vegetable marketing?**
i. [] Yes Why? .....
ii. [] No Why? .....

(i) **Are you always able to do dry seasoning vegetable marketing?**
i. [] Yes Why? .....
ii. [] No Why? .....