

**Assessing the Need for Public Pharmacy Expansions:
A Case Study on Kenema Public Pharmacies in Addis Ababa**



**A Research Paper Submitted to Addis Ababa University, School of
Commerce**

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Statement of Declaration

Declaration

I, the undersigned, hereby declare that the work contained in this thesis is my own original work and that I have not previously in its entirety or in part submitted at any university for a degree.

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Abstract

Community pharmacies are the most accessible and convenient place for providing preventive and curative health care services for local community. Public Pharmacies are types of community pharmacies owned by government (public). According to International Pharmaceutical Federation, the average population served by a pharmacy could be used as an indication of a country's community pharmacy infrastructure and capacity. However, in Ethiopia, community pharmacies are underutilized resources with a very high ratio of inhabitants per pharmacy. The purpose of this study was to assess the need for public pharmacy expansions in Addis Ababa city, Ethiopia. A convergent parallel mixed research approach with descriptive cross sectional study design was implemented. Both quantitative and qualitative data was collected concurrently, analyzed separately, and the results were mixed for data interpretation and analysis. To determine the sample size, proportionate stratified random sampling design technique was used. The study used quasi-structured questionnaire to collect data from participants working in Kenema public pharmacy branches. Based in the results, the weekly average number of customers for class A, class B and class C pharmacies was found to be 1848, 900 and 587, respectively. Similarly, the daily ratio of number of customers to pharmacy personnel was 61, 46 and 43 for class A, class B and class C pharmacies, respectively. The study disclosed that, the average dispensing time in the pharmacies was only 1.6 minutes (96 seconds). All most all the respondents agreed about the need of additional KPP branches to serve the community in Addis Ababa City. Generally, this research showed that, KPP has underutilized business opportunity, unsatisfied (unaddressed) customer need and underrated community service role. Even though, KPP is playing a crucial role in community pharmacy service, the number of branches is not sufficient to address the need of community's pharmacy service in Addis Ababa. Furthermore, the current practice and service of KPP needs to be renovated to fit with the "good pharmacy practices" standards. Therefore, the enterprise should take practical managerial decisions to renovate and improve the pharmacy service. Relevant and reliable scientific research should be also conducted for the enterprise's further development & future actions.

Keywords: Kenema Public Pharmacies; Community pharmacy; community pharmacy service, public pharmacy

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List of Abbreviations

AACAIB:	Addis Ababa City Administration & Information Bureau
AAHB:	Addis Ababa Health Bureau
ADR:	Adverse Drug Reaction
CPS:	Community Pharmacy Services
CSA:	Central statistical Agency
DACA:	Drug Administration and Control Authority
DRO:	Drug Retail Outlet
EFMHACA:	Ethiopian Food, Medicine, Healthcare Administration & Control Authority
EHRIG:	Ethiopian Hospital Reform Implementation Guidelines
EFDA:	Ethiopian Food & Medicine Administration
EPA:	Ethiopian Pharmaceuticals Association
ESA:	Ethiopian Standards Authority
FIP:	International Pharmaceutical Federation
FMOH:	Federal Ministry of Health
KPP:	Kenema Public Pharmacies
NCD:	Non-Communicable Disease
OTC:	Over-The- Counter
USP:	United States Pharmacopoeia
WHO:	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Community pharmacy is the most familiar type of pharmacy, which allows the public access to their medications and advice about their health conditions (Tiwari, 2022).

According to Tiwari, community pharmacies are part of the healthcare facility that are responsible for the delivery of pharmaceutical service to a specific community in a specific area (2022).

Community pharmacies are the most accessible, as well as convenient place for providing preventive health care services for a specific community. According to the studies in many countries, community pharmacies play a vital role in preventive and curative health care and chronic disease management services (Zelege, 2015).

Community pharmacies ranges from small individually owned pharmacies to the large chains of pharmacies. The types of these community pharmacies also depend on the regulations in different countries. For example, in the United States large chain pharmacies are predominant in the community pharmacy service sector (Smith, 2019), but, in Europe, most countries have restrictions on the number of pharmacies to be owned by a registered pharmacist/druggist, that makes the existence of large chain pharmacies very rare (Tiwari, 2022).

The community pharmacy service in Ethiopia is mainly provided by private pharmacies and drug run by a licensed pharmacists and druggists, respectively (FMHACA, 2013;

Zelege, 2015). Even though, there are small number of chain pharmacies in Addis Ababa, mostly the service is dependent on privately owned independent pharmacies. Despite, their significant role in the health care system, community pharmacy services are under-utilized resources in Ethiopia (Zelege, 2015).

In recent years, Project management has become even more important in healthcare services. In the Health care service delivery, Project Management is the key to addressing the unique regulatory, compliance and quality related needs of the industry. The process of expanding public community pharmacies also utilize project management techniques to effectively apply planning, scheduling, risk management and comprehensive quality assurance and control to the process of improving the health care services in a cost-effective but within the timeline. (Chandran, 2016)

The main objective of this study was to assess the need for public pharmacy expansion projects in Addis Ababa city. In this study the researcher tried to examine the current roles of Kenema pharmacies and the actual need of expanding branches to improve the community pharmacy services in Addis Ababa.

1.2 Background of the Company

Kenema Public pharmacy (KPP) enterprise is a government owned community pharmacy, which is giving service in Addis Ababa city administration & the surroundings, under the office of the city manager. Since 1975, Kenema Pharmacies has

been providing drugs and medical supplies at affordable prices to the people of the city, surrounding area and to the people from all over the country.

Currently, KPP has 43 pharmacies branches in Addis Ababa. As of April 2023, KPP has about 548 permanent employees. According to the data from the human resource department, there are about 304 pharmacy personnel's, working mainly in different branches of the enterprise.

➤ **Vision**

The vision of KPP is to fulfill the needs of the society for drugs and medical equipment's in the drug retail business and become a leader in the field.

➤ **Mission**

The mission of KPP as a community pharmacy is to provide the necessary medicines and medical equipment's in type, quantity, and reasonable price, for the wellbeing of the community in coordination with other medical service organizations in a manner which promotes its performance & profitability.

This includes:

- To ensure that the quality, cure and safety of the drugs and medical equipment that it provides are guaranteed from legal importers and distributors of drugs and medical equipment.
- To ensure that there is a complete supply of required medicines and medical facilities, especially life-saving medicines at an affordable price.

- To ensure that, the drug sales function, is performed by drug experts who have good experience in drug sales and have professional qualifications and skills. This helps the users to get complete and adequate information for the medicines and medical supplies they take.

1.3 Statement of the Problem

Recently, non-communicable diseases have also emerged as a major community health problem in Ethiopia (WHO, 2011). According to studies, NCDs were the leading cause of age standardized death rate in causing 711 deaths per year/100,000 people in Ethiopia.

WHO also estimated 34% of Ethiopian population is dying from NCD, with a national cardiovascular disease prevalence of 15%, cancer and chronic obstructive pulmonary disease prevalence of 4% each, and diabetes mellitus prevalence of 2% (Zelege, 2015; WHO, 2011). Similarly, according to some systematic reviews on the impact of NCDs, cardiovascular disease accounts for 24% of deaths in Addis Ababa, cancer causes 10% of deaths in the urban settings and 2% deaths in rural setting and diabetes causes 5% and chronic obstructive pulmonary disease causes 3% of deaths. (Moges, 2019).

There is also high prevalence of communicable diseases in Ethiopia, due to malnourishment, limited access to health facilities and poor water supply and sanitation services. (WHO AFRO, 2014). According to studies, malaria (8.3%), acute respiratory infections (8.1%), dyspepsia (5.9%), pneumonia (4.8) and other unspecified infectious and parasitic diseases (5%) are the major leading causes of outpatient visits in most

regions of Ethiopia. Similarly, most causes of inpatient deaths are due to communicable diseases like, pneumonia (12.4%), tuberculosis (7.1%), HIV/AIDS (5.2%) and malaria (3.7%).

According to International Pharmaceuticals Federation (FIP) data, the average population served by a pharmacy could be used as an indication of a country's community pharmacy infrastructure and capacity. It can also show the accessibility of pharmacy service and to some extent access to medicines. Globally, the median stands at 4,182 inhabitants per pharmacy (ranging from a minimum of 1765 in Armenia to a maximum of 130,385 in Ethiopia) (FIP, 2017).

The ratio of inhabitants per community pharmacy in low-income countries (37,344) multiplies the global median of 4182 by 8.9. Most countries and territories with higher income levels seem to have ratios of inhabitants per pharmacy within the range of between 2,000 and 8000 (FIP, 2017).

On the other hand, due to the current global and national security situation, Ethiopia is facing a nonstop inflation on basic human needs, including medicines & medical equipment's. The researcher believes that the economic crisis, lack of hard currency, market sabotage and the capacity limit of most small private pharmacies are the main obstacles to avail drugs & medical supplies to the community as required.

Many studies show that, the community pharmacy in general, the chain community pharmacy in particular is the underutilized part of the health care system in Ethiopia. The community pharmacy service is dependent on small and privately owned pharmacies. In

Addis Ababa only very few chain pharmacies are providing services to the community. One of these pharmacies is Kenema Public Pharmacy (KPP), which is owned by government, under Addis Ababa city Administration. In fact, currently KPP is the largest chain pharmacy in the whole country.

Currently, KPP has 43 branch pharmacies in Addis Ababa city and is providing services in 11 sub cities and 120 woredas. According to the United Nations population projections, the current population of Addis Ababa is estimated to 5.4 million.

Additionally, some sources shows that there are 2 million visits of the city daily for work from the surrounding towns and Addis Ababa is also a center for medical referral service from all over the country. The community-based health insurance (CBHI) program has also increased the demand for KPP services. Furthermore, there are about 285,000 community health insurance users sponsored by Addis Ababa City Administration, mostly dependent on Kenema pharmacies to get their medicines at affordable price. KPP is also giving the pharmacy retail service for more than 150 organization on credit bases. The enterprise is also providing ART drugs and Insulin free of charge to users.

Even though the role of KPP in improving the community pharmacy services is unquestionable, the number of pharmacies existing is not sufficient to serve the population. Therefore, the main objective of the current study was to assess the role of expanding Kenema public pharmacies to improve the community pharmacy service in Addis Ababa city. This study also tried to convince the stakeholders about the necessity of expansion, due to the current situations.

1.4 Basic Research Questions

The purpose of this study was to answer, “what is the need for public pharmacy expansions in Addis Ababa?”. More specifically, the study aimed to answer the below research questions.

- What is the current role of KPP to the community in Addis Ababa?
- What is the current pharmacy practice of KPP in Addis Ababa?
- What is the actual need of expanding public pharmacies to improve community pharmacy services?

1.5 Objective of the study

1.5.1 General Objectives

- ✓ To access the need for public pharmacy expansions in Addis Ababa, specifically the case of Kenema public pharmacies

1.5.2 Specific Objectives

- ✓ To examine the current role of Kenema public pharmacies as part of community pharmacy
- ✓ To accesses the current pharmacy practice of Kenema public pharmacy
- ✓ To assess the actual need of expanding Kenema public pharmacies to improve community pharmacy services in Addis Ababa

1.6 Significance of the study

The findings of this study will supplement the existing knowledge base on the role of public pharmacies to the community health care improvement.

The finding of this study will help the various stakeholders to understand the role of public pharmacies in health care services. More precisely, the organization (Kenema pharmacies) and the city administration can use this study for further application & development.

1.7 Delimitation/Scop of the study

The scope of the study was description and assessment of the need for expanding Kenema public pharmacies in Addis Ababa. The study did not investigate the detailed financial feasibility study for the expansion project.

Due to poor documentation & reporting system of the pharmacy branches, it was difficult to get compiled data on day-to-day activities. Therefore, this study was done mainly by collecting data through semi- structured questionnaire from the pharmacy personnel's' at the selected KPP branches.

The researcher also had a plan to include KPP customers to this study, even though time constraint didn't allow it.

1.8 Definition of Terms

- **Average Dispensing Time:** is the average time that pharmacist or a druggist spend with the patients during dispensing drugs in the pharmacy. Paying & waiting time is not included. (JL Lenjisa 2015).
- **Community pharmacy:** is a type of pharmacy that mainly provides drug retail services to a specific community in a specific area.
- **Dispensing** is the process of preparing medicines and distributing to users with provision of appropriate information, counselling and follow up. (EFDA, 2021)
- **Markup pricing** is a pricing method where a fixed percentage, known as the markup, is added to the cost of a product to determine its selling price (Sniffie, 2023).
- **Over-the-counter drugs:** means drugs which are dispensed without prescription (FMHACA 2021; EFDA, 2021).
- **Pharmacy premises** are those areas where medicinal products are, or are intended to be, sold, or supplied, prepared, dispensed, compounded, or stored. (PSI, 2008)
- **Prescription drugs:** means drugs which are dispensed with prescription only (FMHACA, 2021; EFDA, 2021).
- **Public community pharmacy/Public Pharmacy:** is a community pharmacy owned by government (public). Kenema public pharmacy, which is owned by Addis Ababa City is an example of such pharmacies.

1.9 Organization of the Paper

The paper is organized into 5 chapters.

The introductory chapter one contained the background of the study, statement of problem, basic research question, objectives of the study, definition of terms, significance of the study and the scope of the study. Chapter two of the study covered the literatures relevant to the study, about expansion projects in the context of community pharmacy services, the roles, and types of community pharmacies. Chapter three clarified the research design types, the data collection instruments, sources of data, the procedures of data collection and the methods of data analysis. In chapter four of the study, the findings/results of the study have been discussed briefly. Finally, the conclusion and recommendation part of the study, chapter five summarized the conclusions and recommendations based on the findings of the study.

CHAPTER TWO

REVIEW OF RELATED LITRETURES

2.1 Introduction

This chapter reviews the issues related with Project management in the context of health care expansion projects, the concepts of pharmacy & community pharmacy, as well as the definition, roles and types of community pharmacies which play a significant role in improving the health care.

2.2 Project Management in Health Care Projects

Project management is a discipline that can be applied to all industries, that delivers product or services. In addition to its basic application, it has great value to increase the success products or services being delivered, when effectively implemented (Chandran, 2016). Strong project management helps to improve healthcare and the healthcare industry in many ways including expansion projects. It can improve organizational planning and improve budgeting, as it directly aligns resources with important work.

When the phases of the project are designed & managed professionally, it can also increase staff productivity and improve relations with various stakeholders (Ebiy, 2020).

According to some studies, the number one reason for project failure is poor project planning, specifically, poor requirements or incomplete and incorrect requirements. For a successful implementation of expansions, project prioritization of project resources, adequate planning and accurate definition of project requirements and goals are crucial.

Well-executed projects can also help to improve some of those day-to-day processes, in areas like managing tasks, staff time, resources, and managing change (Ebiy, 2020).

The availability of highly restrictive regulations and standards, increasing demand for healthcare services combined with rising costs, and the dynamic nature of the health care industry are some of the factors, contributing for the unique challenges of healthcare project management (Jackson, 2023).

This project is an example of expansion project (capital investment project) which involves increasing the sales and services of existing services into existing markets. (CFI, 2023). It is a project, which aimed to increase the business size of KPP and improve the community pharmacy services in the health care system.

2.3 Pharmacy and Community Pharmacy in Healthcare System

Healthcare as a system encompasses many disciplines, that are interlinked to each other and support the system to its growth. One of these disciplines is Pharmacy, which has a vital role in the healthcare system to support and sustain the overall healthcare facility (I3L, 2023).

Community pharmacy is a type of pharmacy that is typically located in a retail setting, such as a pharmacy, drugstore, or grocery stores (Cara, 2023). It is a healthcare facility which provides pharmacy retail service to a specific community group in a specific area. Mostly, community pharmacies have a pharmaceuticals store, composed of prescription based and OTC pharmaceutical items (Tiwari, 2022). Nowadays, the role of community

pharmacists is expanding in recent years and community pharmacies are serving as a center for many essential preventive and curative health services like immunizations, medication advisory services, and for minor ailments.

Being the most accessible health care providers, community pharmacist play an important role in the sustained healthcare and checkups for patients. The major roles of community pharmacies include, processing prescriptions, checking for drug interactions, dispensing medications, disposing of medication, providing advice and promotion of healthy lifestyle.

In Ethiopia the community pharmacy service providers are mostly privately owned independent pharmacies, drugstores, and drug vendors. Except, Kenema public pharmacies and some other limited hospital affiliated community pharmacies, the government involvement in this sector is minimal. The pharmacies provide dispensing of prescribed medications services as well as other primary health care services (Melton, 2017).

2.4 The Role of Community Pharmacy

Apart from providing the medications to patients based on the prescription from their doctor, the role of the pharmacist has progressed greatly and is now deeply involved in the number of other health initiatives. The major tasks of a community pharmacist may include, processing of prescriptions, checking for drug interactions and making sure that the medications and the doses are appropriate, dispensing medications by providing the correct information to patients about drugs and their rational usage, proper labeling of the

medication, disposing of expired and unwanted medication and Promotion of healthy lifestyle by supporting the patients to make healthier choices, such as intake of more nutritious food, exercising more often or stopping smoking (Tiwari, 2022).

Community pharmacists are the most frequently visited health professional by patients. This enables them to play a vital role in healthcare promotion activities and check-ups for the patients. Moreover, they are in a good position to recommend preventive measures and the routine screenings in appropriate life stages (Tiwari (2022).

2.5 Types of Community Pharmacies

According to Tiwari, there are different types of the community pharmacies, ranging from small individually owned pharmacies to large chain community pharmacies in diverse locations (2022). Community pharmacies can either be independent, chained or hospital based depending on the regulations in every country and other factors. The most advanced and recently developed community pharmacy is e-pharmacy (Knowles, 2022).

Below are the four types of community pharmacies and with some explanation to show the difference between each other.

2.5.1 Independent pharmacy

An independent pharmacy is a pharmacy owned by an individual (s) and operate independently. If the owner of the pharmacy is not a pharmacy professional, he/she must hire trained and licensed pharmacist, as only a pharmacist/druggist can run a pharmacy (Knowles, 2022).

2.5.2 Chain of pharmacy

A chain of pharmacy is established by a company or an organization. This chain is usually spread over a city, a state or sometimes through the whole country.

Kenema public pharmacies is also one example of chain pharmacy. More precisely, KPP is a public chain community pharmacy owned by Addis Ababa city administration (Knowles, 2022).

2.5.3 Hospital-based pharmacy

A hospital-based pharmacy is a pharmacy/drugstore as part/department of a hospital to provide medication facilities to the patients mainly visiting the hospital (Knowles, 2022).

2.5.4 E-pharmacy

E-Pharmacy is a new type of pharmacy proposed to improve CPS, especially in difficult situations, like COVID-19 pandemic. In this case the patients order drugs online, get in touch with a pharmacist over the internet and follow all the procedures that that should be followed, while buying the medicines from nearby traditional community pharmacies (Knowles, 2022).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter clarifies the research approach, design and method used, the data collection instruments, sources of data, the procedures of data collection and the methods of data analysis. It also outlines the population, sampling techniques and sample size determination for the study.

3.2 Study Area

The study was conducted in Addis Ababa, the capital city of Ethiopia. The city is divided into eleven sub-cities and 120 woredas. According to the United Nations population projection of 2022, the population of Addis Ababa city is estimated around 5.4 million. 100% of the populations are urban dwellers (CSA 2017; MoH, 2022).

Regarding the health infrastructures, the 2012 (EFY) Health and Health Related indicators published by MoH shows that, Addis Ababa has 13 Hospitals, 98 Health Centers (MoH, 2022). In Addis Ababa, nearly 94% of healthcare facilities are private (FMHACA, 2012). According to the data from AACAIIB, Addis Ababa had 13 public referral hospitals, 29 general hospitals (7 public, 22 private), 3 private primary hospitals, 98 public health centers, 572 community pharmacies (25 public and 551 private) and 306 private drug stores (AACAIIB, 2015; Moges, 2019). As of May 2023, there are 43 KPP branches in Addis Ababa.

3.3 Research Approach

A mixed methods research design is a procedure for collecting, analyzing, and “mixing” both quantitative and qualitative research and methods in a single study to understand a research problem (Creswell, 2012). Therefore, In case of mixed research approach, the researcher combines elements of quantitative research and qualitative research to increase the understanding of the social phenomena (Kirti, 2022).

This study has used mixed research approaches to gain more complete picture, about the role of expanding KPP in improving the community pharmacy services in Addis Ababa city. The researcher believed, only qualitative or quantitative approach is not sufficient to address the research problem or/and answer the research questions.

There are four types of mixed methods. These are: Convergent parallel, embedded, explanatory sequential and exploratory sequential designs (Creswell, 2012). More precisely, convergent parallel design is implemented in this research. In convergent parallel design, both quantitative and qualitative data is collected simultaneously, analyzed separately, and the data base is mixed by merging the results during interpretation and data analysis. For Example: in this research, both qualitative and quantitative data were gathered at the same time, using a semi-structured questionnaire.

3.4 Type/Design of research

Research design is a plan for a study, which provides the structural framework for collecting data (Leedy, 1997:195). More precisely, it as a plan or a strategy for selecting

subjects, research sites, and data collection procedures to answer the research question(s). for a research design to be sound, it should provide reliable and valid results (MacMillan and Schumacher, (2001:166).

Descriptive research design is adopted for this research, as it helps to assess the need for public pharmacy expansion and provides a basis for further actions & developments.

Descriptive research is an appropriate choice when the research aim is to identify characteristics, frequencies, trends, and categories (McCombes, 2022).

3.5 Research Population and Sampling

3.5.1 Source and study population

A source population is a subset of a target population, and it is a smaller population within a larger target population from which a sample is drawn. A study population is a sample drawn from the source population (Scot, 2015).

The KPP pharmacy staffs were used as a source population. The staffs those who have been working in selected all KPP branches at the time of the survey were used as study population.

3.5.2 Sample design

To collect information from KPP pharmacy personnel's, proportionate stratified random sampling was implemented. In this case, first the population (total of 42 pharmacies) was divided into homogeneous subpopulations or strata's that are mutually exclusive and

collectively exhaustive. Then, simple random sampling has been employed to choose elements from each stratum to be a part of the sample group (Adams, 2023).

The total number of Kenema pharmacies was stratified in to three strata: Class A, Class B & Class C, depending on their customer flow and daily sales. The information for the classification was obtained from KPP head office, drug retail sales department. The base for the classification was the weekly sales volume and the weekly number of customers of each branch pharmacy. Then, a proportionate stratified sampling technique was used to determine the number of pharmacies from the three strata for the study. After, determining the stratum size, the specific pharmacies from each stratum were selected by lottery method. Finally, participants (KPP pharmacy personnel's) from the selected pharmacies were requested randomly to respond the questionnaires.

3.5.3 Sample Size

Even though the target population was small, KPP branches are scattered all over the city. Therefore, due to time & resource shortage, stratified proportional probability sampling techniques was used to determine the sample size the study. The sample size required for the study was determined using OpenEpi software version 3.01 (Seid, 2017; Kevin et al., 2013), the estimation formula for the sample size is indicated below.

$$\text{Sample size } n = [\text{DEFF} * Np(1-p)] / [(d^2 / Z^2 1-\alpha/2 * (N-1) + p*(1-p)]$$

Were:

- $\text{DEFF} = \text{Design effect} = 1$

- $N = \text{Population size (for finite population correction factor or fpc)} = 42$

- $d = \text{Confidence limits as \% of 100(absolute } \pm \%) = 5\%$

- $p = \% \text{frequency of outcome factor in the population} = 95\%$

Considering the total population size 42, assuming the frequency of outcome factor in the population 95%, with margin of error 5% and design effect of 1, the sample size required for this assessment was 27. Hence, 27 KPP pharmacies which were stratified among the three strata according to their number of customers & sales were selected.

3.5.4 Inclusion & Exclusion Criteria

All the pharmacy branches of KPP were included in this study, except the newly opened branch at Kolfe woreda health center. This was the 43rd branch of KPP, and it was excluded from the study, as it hasn't been fully operational during the study period.

3.6 Data collection

This study has utilized both primary & secondary data sources.

3.6.1 Primary data source

In this study, primary data was obtained through quasi-structured questionnaire. Quasi-structured (semi - structured) questionnaires are a mixture of close-ended and open-ended questions, to get advantages from both question types. Both structured questions and

unstructured questions that are feasible for more in-depth information are included in this type of questionnaire. (Nikita, 2023)

Research instrument: Quasi- structured questionnaires was implemented in this study.

3.6.2 Secondary data

Sources secondary data were obtained from the organization (KPP, AAHB, MoH, AAFMHACA) files, SOP manuals and guidelines have been used to provide supplementary information for the study. In addition, published and unpublished government documents, websites, and community pharmacy service reports were reviewed to make the study comprehensive.

3.7 Data analysis methods

The data collected through quasi-structured questionnaire was checked and cleaned in detail for consistency and completeness before analysis. Then, the data analyzed carefully, using both quantitative and qualitative analysis techniques. Therefore, in this study, the data analysis has been done using tabular and descriptive data analysis techniques.

In addition to the primary data, secondary data was also used to supplement and triangulate the study. This includes SOP manuals, guidelines, organizations websites, and reports of health care organizations.

3.8 Scale Reliability and Validity

Reliability and validity in research indicate how well a method, technique of test measures something. Reliability is about the consistency of a measure. On the other hand, validity is about the accuracy of a measure (Middleton, 2023).

3.8.1 Reliability

Reliability of a research is important, as it measures the quality of the research. Findings that are true or accurate from a research study are often said to be reliable (Carrol, 2022).

In this study, maximum effort has been given to reliability throughout the data collection process. For example, all the respondents were given the same information about the significance and the objectives of the study to reduce the variation in results. The overall steps in data collection were also the same.

3.8.2 Validity

Validity of research is an evaluation of accuracy of a given study. It describes the extent to which the study measures what it intends to measure. (Carrol, 2022) Similarly, Middleton describes validity as an evaluation in which how accurately a method measures what it is intended to measure (2023).

In this study, valid data collection method was used to obtain useful study results & draw a valid conclusion. Expert opinion of community pharmacists was also taken into consideration. The results were also compared to other relevant data to check the validity of this study.

3.9 Ethical consideration

Support letter which clearly states the purpose of the study was formally secured from Addis Ababa University School of commerce. Then, support letter from Kenema public pharmacies head office, addressed to all branch pharmacies requesting to cooperate with the researcher was obtained. In addition, oral consent was obtained from each branch pharmacy managers and participant before data collection.

Explanation was given to the participants about the purpose of the study, and they were also informed about the confidentiality of their information. Participants were requested to provide information on voluntary basis and their right of withdrawal from the study anytime was also protected. Furthermore, maximum effort has been done, to avoid plagiarism by acknowledging all the materials used for the study.

CHAPTER FOUR

RESULTS & DISCUSSION

4.1 Introduction

This chapter presented results, discussions, and interpretations of the study. The data collected were analyzed using mixed method of data analysis. As discussed in chapter three, convergent parallel design is implemented in this research. In convergent parallel design, both quantitative and qualitative data is collected concurrently, analyzed separately, and the data base is mixed by merging the results during interpretation and data analysis.

4.2 Response Rate & Demographic Data

4.2.1 Response Rate

A total of 27 pharmacy personnel's working in 27 KPP were approached in this study (9 from each subgroup). Out the distributed questionnaires, 24 questionnaires (fortunately 8 from each subgroup) were returned properly. Therefore, the response rate was 89%, which is the base for the analysis of the study.

4.2.2 Gender Distribution of Respondents

In relation to sex distribution of the research respondents, the below table shows, the majority (58.33%) of them were females and around 41.67% were males.

According to this study, the total number of pharmacy personnel's working in the 12 pharmacies were 62. Out of this 37 (58.7%) were females & the rest 25 (39.3) were male professionals. Therefore, it can be said that both male and female respondents are fairly represented in the study.

Sex	Number	Percentage
Male	10	41.67%
Female	14	58.33%
Total	24	100%

Table 1; Distribution of respondents by Sex

Source: (Own survey, May 2023)

4.2.3 Level of Education status

Of the 24 respondents, 12 (50%) had BSC degree, 10 (41.67%) had diploma and the rest 2 (8.33%) had master's degree level of education.

Level of Education	Frequency in number	Percentage
Diploma (Level – IV)	2	8.33%
BSC degree	12	50%
MSC degree	10	41.67%
Total	24	100%

Table 2: Education status of Respondents

Source: (Own survey, May 2023)

4.2.4 Age distribution of Respondents

Out of the total 24, 9 (37.5%) of the respondents fall under the age category 25-30 years followed by those in the category 20-25 age category, which are 33.33%. The rest fall in the age category of 30-35 and 35 to 40 age groups with 20.84 % and 8.33% shares, respectively. The study shows that most of the respondents were young professional, with about 70% being less than 30 years.

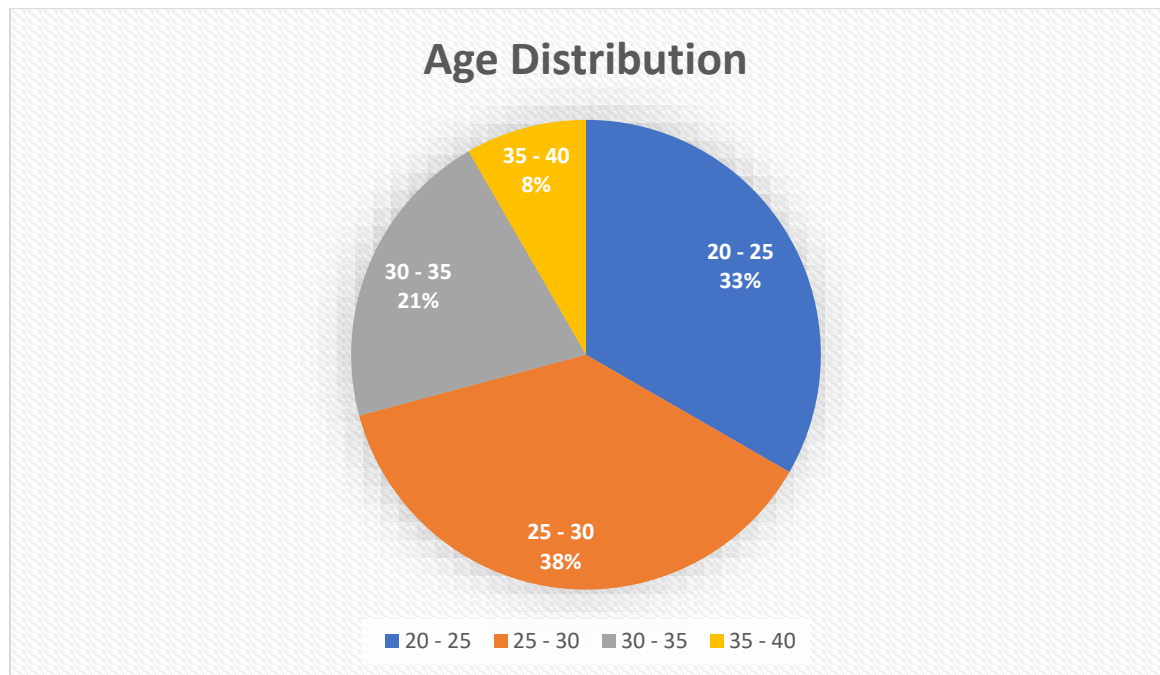


Figure 1: Respondents Age Distribution

Source: (Own survey data, May 2023)

4.2.5 Years of Experience as a community Pharmacist/Druggist

Regarding their total years of work experience as a community pharmacist/Druggist, 54.17% had 1 to 5 years' experience, 16.67% had less than one year experience and

20.83% has 5 to 10 years' experience. The others 8.33% had above 10 years of experience. Therefore, based on the respondent data it can be said that most of the respondents are not highly experienced.

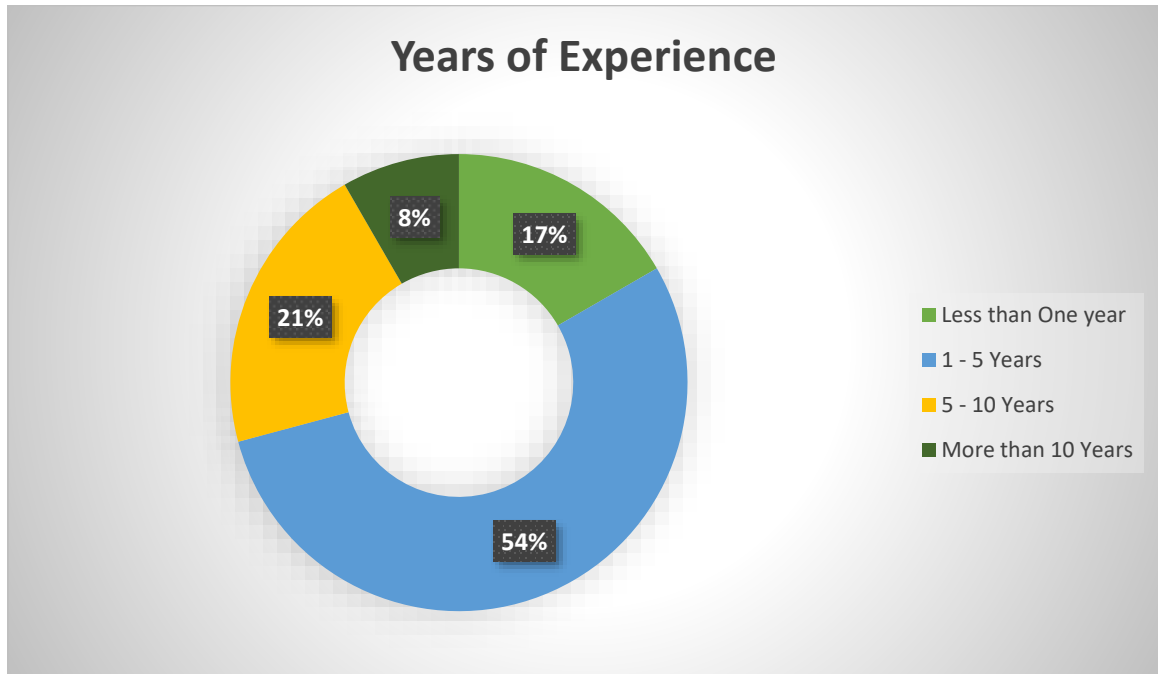


Figure 2: Respondent's years of experience

Source: (Own survey, May 2023)

4.2.6 Position of Pharmacy Personnel's

The data collected from the study showed, 37.5% of the respondents were working as a junior pharmacist, 20.83% as a senior pharmacist, 25% of them as a junior druggist, and the rest 16.67% as a senior druggist.

4.3 Results & Findings

4.3.1 Classification of Kenema Public Pharmacies Enterprise

According to the information from Kenema Pharmacy Enterprise, drug retail sales department and based on the customer flow of each branch, the branches were classified in to three categories, as Class A, Class B & Class C branches.

S.No	Class A	Class B	Class C	Remark
1	Merkato	Akaki	Birchiko Condominium	
2	Piassa	Gotera Shell – depo	Yeka Abado	
3	Stadium	Kotebe	Deginet	
4	Arat killo	Lideta M/M/C	Bole Bulbula	
5	Kera	Summit – 2	Ayat Tafo	
6	Lideta	Gelan	Haile Garment	
7	Kazanchis	Tulu Dimtu	Summit – 1	
8	Addisu Gebeya	Bole Arabsa	Kara Kore	
9	Zewditu Hospital	Jemo – 3	Bolu Ayat – 2	
10	Minilik Hospital	Shegole	Bolu Ayat – 3	
11	Anbessa Gibi	Bethel	Ferensay	
12	Tele Gibi	Jemo – 1	Kilinto	
13	Shola	Kality	Zenebework	
14	Semen Mazegaja	Mekanisa	Bole	
15			Kolfe Health Center	New Branch

Table 3: Classification of Kenema Pharmacies based on customer flow

Source: (KPP Retail sales department, April 2023)

After the classification of the branch pharmacies into subgroups, samples were taken randomly for each subgroup. Due to lack of integrated documentation of daily customer transactions, the respondents tried to give valid and reliable data by counting

prescriptions. Therefore, the data obtained from the questionnaire is mainly dependent on the respondent's response.

Class A Pharmacy branches

The pharmacies under class A, have weekly visitors of between 1,200 to 3,500 customers. This number includes both cash paying and credit users. The average number of customers per week was found to be around 1848 customers weekly and the average number of pharmacists/druggists per working hours was 5. Therefore, the daily ration of Customers to dispensers was about 61.

S.No	Branch Pharmacy	Average No of Customers/ Weekly	No of pharmacy dispensers in one shift	Daily ratio
1	Merkato No. 01	2100	5	70
2	Piassa No. 02	3500	8	73
3	Lideta No. 08	1560	4	65
4	Minilik Hospital No. 13	1440	4	60
5	Stadium No. 03	1780	5	59
6	Semen Mazegaja No. 38	1850	5	58
7	Shola No. 18	1350	4	56
8	Kazanchis No. 10	1200	4	50

Table 4: Class A pharmacies weekly customer visitors

Source: (Own survey May 2023)

N.B: Most of these pharmacies are open from Monday to Saturday / 08:00 AM to 06:30 PM/

Class B Pharmacy branches

According to this study, the below are the list of pharmacies under class B, which have weekly customers between 700 to 1,200 customers. This number includes both cash paying and credit users. The average number of customers per week was 900.

S.No	Branch Pharmacy	Average number of Customers/ Weekly	Number of pharmacy dispensers in one shift	Daily ratio
1	Jemo -3 No. 26	980	3	54
2	Lideta M/M/C No. 16	920	3	51
3	Summit – 2 No. 20	840	3	47
4	Bethel No. 34	820	3	46
5	Gottera Shell No.07	1100	4	46
6	Jemo – 3 No. 26	780	3	43
7	Bole Arabsa No. 23	760	3	42
8	Kotebe No. 09	1000	4	42

Table 5: Class B pharmacies weekly customer visitors

Source: (Own survey May 2023)

Class C branches

According to this study the pharmacies categorized under class C, have a weekly average customer of about 587. The range was between 490 and 680. This number includes both cash paying and credit users.

S.No	Branch Pharmacy	Average number of Customers/ Weekly	Number of pharmacy dispensers in one shift	Daily ratio
1	Yeka Abado No. 19	600	2	50
2	Birchiko Condominium No. 19	580	2	48
3	Bole No.41	640	3	46
4	Bole Ayat – 3 No. 33	550	2	46
5	Ayat Tafo No. 27	505	2	42
6	Summit -1 No. 29	490	2	41
7	Zenebework No.40	680	3	38
8	Ferensay No. 35	650	3	36

N.B: These pharmacies are open from Monday to Saturday / 08:00 AM to 06:30 PM/

Table 6: Class C pharmacies weekly customer visitors

Source: (Own survey May 2023)

4.3.2 Results on the current roles and practices of KPP

Based on the data collected, using closed-ended structured questionnaire, below is the summarized quantitative results on the roles and practices of KPP in Addis Ababa.

Out of the total 24 respondents 19 (79.17%) replied that KPP is giving community pharmacy service with affordable price. 3 (12.5%) of the respondents were neutral and only 2 (8.33%) disagreed to say KPP's price is still not affordable for the users.

Regarding patient consultation, 25% and 41.67% of the respondents have strongly agreed and agreed respectively, that professional patient consultation is being practiced at KPP. 20.83% were neutral and the rest 12.5% disagreed to this question.

The study also revealed that, only 17% of the respondents agreed that the pharmacy premise is suitable for pharmacy service. On the other hand, about 41.5% and 12.5% of the respondents have disagreed & strongly disagreed respectively. Out of 24 respondents, about 25% of them disagreed to say the overall current quality of KPP service is

acceptable. 29% of them were neutral and only 17% of the respondents agreed on the acceptability of the KPP pharmacy services.

The overall results of the on the current roles of and practices of Kenema Public

Pharmacies is summarized in table 7 below.

S.No	Activity	S. A		A		N		D.A		S. D	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	KPP is giving CPS with affordable price	11	45.83	8	33.33	3	12.5	2	8.33	0	0
2	KPP has high level of customer trust	20	83.33	2	8.33	2	8.33	0	0	0	0
3	Relatively to private pharmacies, KPP is reliable in terms of stock availability	8	33.33	14	58.33	2	8.33	0	0	0	0
4	There is high level of cooperation & communication between KPP branches	2	8.33	7	29.19	8	33.33	7	29.19	0	0
5	Proper and professional patient consultation is being practiced at KPP	6	25	10	41.67	5	20.83	3	12.5	0	0
6	Appropriate labeling of medicines is being practiced	5	20.83	14	58.33	3	12.5	2	8.33	0	0
7	The pharmacy premise is suitable for pharmacy service	2	8.33	2	8.33	7	29.19	10	41.67	3	12.5
8	The pharmacy is convenient for persons with disabilities	1	4.17	5	20.83	4	16.67	10	41.67	4	16.67
9	The pharmacy is sited at accessible location	3	12.5	8	33.33	4	16.67	7	29.17	2	8.33
10	Overall, the current quality of service is acceptable	4	16.67	6	25	7	29.17	6	25	1	4.17

Table 7: Results on the current role and practice of KPP

Source: (Own survey May 2023)

4.3.3 Results on the Role of role of Expanding KPP

As it is indicated in the below table, 75% of the respondents have strongly agreed about the essentialness of additional KPP branches due to increasing double disease burden from communicable & noncommunicable diseases. The rest 25% of the respondents also agreed accordingly. Based on the findings, it can be said that the need for expanding KPP

The results on role of KPP expansion in improving the community pharmacy services, the respondents reply is summarized below in table 8.

S. No	Activity	S. A		A		N		D.A		S. D	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	Due to increasing disease burden & population, additional KPP branches are essential	18	75	6	25	0	0	0	0	0	0
2	Expanding branches can be financially feasible	5	20.83	12	50	7	29.16	0	0	0	0
3	Opening additional pharmacy branches can be practical & manageable	4	16.67	13	54.17	5	20.83	2	8.33	0	0
4	Opening additional branches will help to improve the service delivery to the community	14	58.33	8	33.33	2	8.33	0	0	0	0
5	Business Expansion & renovation projects can help KPP to be a leading chain pharmacy in Ethiopia	7	29.16	11	45.83	5	20.83	1	4.17	0	0

Table: 8 Results on the potential role of KPP expansion

Source: (Own survey May 2023)

4.4 Discussion & Interpretation

4.4.1 Discussions & Interpretations on the roles & practice of KPP

As indicated in table 7 above, most of the respondents agreed or strongly agreed that KPP is providing the pharmaceutical retail sales service with affordable price. Similarly, in their response to the open-ended questions, the participants mentioned that the markup price of medicines & medical equipment's at KPP is fixed, and it is 20%, except ART drugs & Insulin. KPP is distributing ART drugs & insulin to users with 0% markup price. Most of participants considered the current markup price to be cheaper relative to the private pharmacies. On the other hand, about 8% of the respondents have disagreed about the affordability of retail price. According to their view of point, though the price is lower than the private pharmacies, it is not said to be affordable for some of customers.

Regarding the KPP's level of customer trust, nearly 92% of the respondents replied as KPP has a high level of customer trust. Businesswise, this can be taken as a great opportunity for KPP expansion project and future development. This study showed that, the stock availability of KPP is also very good. Out of the total respondents, nearly 92% have agreed on the stock reliability of KPP. In retail pharmacy services, this is also a major factor for a pharmacy/drug store to be successful in its business.

This study has revealed that, the level of cooperation & communication between KPP branches is very low. Only 37.5% of the respondents have agreed and strongly agreed jointly, that there is a high level of communication & cooperation between KPP branches. 33% of the respondents were neutral to this question & the rest 29 % disagreed.

Similarly, the respondents were asked to describe the linkage between KPP branches. Most of them have mentioned that there is lack of formal communication across branches. Some of the staffs use channels like Telegram, for communication & information sharing, mostly depending on the level of their individual relationships.

As reflected from the findings, only 17% of the respondents agreed that the pharmacy premise is suitable for pharmacy service. According to national regulations, pharmacy premises on which a dispensing service is provided can reflect the quality of service and create confidence on patients in community pharmacy service delivery (FMHACA, 2015). In their response to describe their pharmacist premise, most of them said “not suitable and standardized for pharmacy service”. According to their response, the pharmacies lack adequate waiting area for customers, convenient & sufficient patient consultation room, separate managerial room, clean & sufficient dispensary, ventilated and adequate store and access to the persons with disabilities.

As per the study gathered, customers prefer KPP than private pharmacies. Good and competitive price, stock availability and customer trust were the main reasons for customers to visit KPP frequently. The study also showed most frequently, customers visit KPP to collect their prescribed medicines.

This study revealed that, the average number of customers weekly for class A, class B and class C pharmacies was found to be 1848, 900 and 587, respectively. This shows that most of the pharmacies in class A are providing services to their surrounding community beyond their capacity. The capacity can be expressed in terms of workforce, pharmacy premise and the overall management capability.

As shown in table 4, 5 and 6, the daily ratio of number of customers to pharmacy personnel was 61, 46 and 43 for class A, class B and class pharmacies, respectively. As per WHO standards, the daily recommended number of prescriptions is 45 - 50 per pharmacist. Some sources show that, the number is even lower than in some countries. For instance, a maximum of 40 prescriptions per day per pharmacist is stipulated by law in Japan (Lenjisa et al, 2015). Therefore, this study showed that the almost all the pharmacies in class A have higher customer to dispenser ratio. This means, the pharmacists of class A branches in KPP have higher workload that could decrease their ability of reviewing prescriptions, decrease their consultation and dispensing time and lead to increased dispensing errors.

Regarding the dispensing practice of KPP, this study disclosed the average dispensing time in the pharmacies was only 1.6 minutes (96 seconds). WHO recommended the average dispensing time is at least 5 minutes (WHO, 2002). The national average dispensing time was 78.69 seconds, excluding the waiting time and the time required for payment (FMHACA, 2012). On the other hand, a study conducted in Jimma university specialized hospital showed an average dispensing time 168 seconds (Etefa et al, 21013). Another similar study conducted in Gondar university teaching referral hospital showed 258 seconds (Endalkachew et. Al., 2013). Therefore, the study revealed that even though the result found in this study is better than the national average, it is far lower than similar studies and the WHO standard. The main reason could be the workload on the dispenser pharmacy personnel.

Similarly, about 79% of the participants have agreed and strongly agreed collectively that proper labeling is being practiced in their branch pharmacy. Medicines should be always labeled with essentials information to ensure safe and effective therapeutic use & the recommendation by regulatory organizations is that all medicines should be properly labeled to create clear understating to the users and avoid irrational drug use.

In this study inadequate pharmacy premise, shortage of pharmacy personnel and dissatisfaction of staffs in human resource management system of the enterprise were mentioned by respondents, as the main challenges in implementing good dispensing practices. The study also showed that the reporting & documentation system at the pharmacies was far behind the standards. Most of the participants have replied that the pharmacies are not implementing integrated reporting and documentation system in their pharmacies.

The result found in this research regarding the overall service quality of KPP exposed the need for improvement of the service delivery. As indicated in table 7, only 17% of the respondents agreed that the current quality of the services is acceptable. This could be mainly due to the shortcomings related with the pharmacy premises & facilities, poor communication and documentation system, and the current pharmacy practices.

4.4.2 Discussions & Interpretations on the Role of Expanding KPP Branches

As it is indicated in the above table 8, 75% of the respondents have strongly agreed about the essentiality of additional KPP branches due to increasing double disease burden from communicable & noncommunicable diseases. The rest 25% of the respondents also agreed accordingly. Based on the findings, it can be said that the need for expanding KPP is unquestionable and further actions and decisions should be made timely. Similarly, about 92% of the respondents jointly agreed and strongly agreed that, opening additional branches will help KPP to improve its service delivery to the community and about 75% of the staff respondents believe, business expansion & improvement projects can help KPP to be a leading chain pharmacy in Ethiopia.

Regarding the possible challenges of KPP expansion project, most of the respondents mentioned, financial scarcity and administration (managerial) issues, as the two major challenges that should be addressed to make the expansion project practical and feasible.

The result of this study showed, 21% and 50% of the respondents, strongly agreed and agreed, respectively, that expanding branches can be financially feasible. In their response to the open-ended questions, the respondents have also mentioned loan from the city administration and internal income, as a potential financial sources for the expansion project.

Likewise, 17% and 54% of the respondents strongly agreed & agreed respectively on opening additional pharmacy branches can be practical & manageable in terms of

administration. About 21% of them were neutral and 8% of the respondents disagreed to this activity. In their explanation, those respondents that have agreed & disagreed stated that the expansion can be manageable with the current structure and capacity of the enterprise. Those who disagreed said, the management is not able to manage additional branches and working on the organizational structure should come first.

The study revealed that, the number of KPP branches is not sufficient to serve the community in & surrounding Addis Ababa City. The respondents agreed on unquestionable need of opening additional KPP branches. The main reasons raised by the respondents were high disease burden, limited capacity of private pharmacies and proportionality with the population. Most for the respondents also mentioned, the community-based health insurance (CBHI), has also brought an opportunity as well as a workload to the pharmacies. Some of the areas in Addis Ababa city, that were repeatedly mentioned for potential expansion were Megenagna, CMC Square, Bole 22, Merkato (additional Branch), Piassa (additional branch), Gerji, and Stadium (additional branch).

CHAPTER FIVE

SUMMARY, CONCLUSION & RECOMMENDATIONS

5.1 Introduction

The purpose of this study was to assess the need for public pharmacy expansion projects in Addis Ababa. Specifically, the aim of the study was to examine the current role of Kenema public pharmacies as part of community pharmacy, assesses the current practice of Kenema public pharmacy, and to assess the need of expanding Kenema public pharmacies to improve community pharmacy services. Therefore, in this section of the study, summary and concluding statements of the research, some recommendations for the respective stakeholder and recommendation for further studies are presented.

5.2 Summary and Conclusion

Based on this study, Kenema public pharmacies are playing a significant role in community pharmacy service in Addis Ababa city. The enterprise is serving the community, while struggling with many shortcomings. The study revealed that, KPP has a high market opportunity with high level of customer trust. The presence of wide range of products (stock availability), high level of customer trust and the affordable price of medical items were found to be the company's competitive advantages in the pharmaceutical retail business service.

On the other hand, the study showed that, there are also many shortcomings and improvement areas, related with the current practices and services of KPP. Most of these

difficulties are related with the inadequate pharmacy premises, the failure to fulfill the standards and recommendations of international and national regulatory organizations and the disproportion of the community service demand with KPP's current capacity. Some of the areas which need immediate improvement and actions to advance the CPS includes, availing convenient & sufficient patient consultation room & sufficient dispensary, ventilated and adequate store, facilitate access to disabled customers, and implementing integrated reporting & documentation system.

Regarding the pharmacy practice, it is found out that KPP is far behind to the international and national level of good pharmacy practices, service standards and recommendations. The results about the average dispensing time, the average consultation time, and the practice of medicines labeling showed the need for immediate actions and intervention to fulfill the requirements of the regulatory organizations.

The study also found out, the location of some KPP branches is not convenient to customers. Therefore, detailed study which includes area analysis, potential customers demographics and location of competitors should be considered for relocation and opening of new KPP branches.

According to this study, the potential role and the need for KPP expansion was found to be unquestionable. The study showed that, the number of KPP branches is not sufficient to serve the community in Addis Ababa. Furthermore, the implementation of CBHI program, the availability of major referral hospital in Addis Ababa, the increasing burden of communicable and noncommunicable diseases are the major indicators for the need of additional branches and capacity development. However, the respondents of this study

have also strongly mentioned, financial scarcity and administration (managerial) issues, as the two major challenges that should be addressed to make the expansion project practical and feasible. According to the study, most of the respondents suggested loan facilitation from city administration and using internal income as a potential financial source for the expansion projects. Regarding the administration and management issues, the enterprise should select/assign the right people for the right job. This will help to have business as well as service oriented qualified professionals in the enterprise.

Therefore, based on the findings of this study, it can be concluded that, KPP has underutilized business opportunity, unsatisfied (unaddressed) customer need and underrated community service role in Addis Ababa city.

5.3 Recommendations

Based on the study findings, the researcher would like to provide the following recommendations to the respective stakeholders, for the future improvement and further development of Kenema Public Pharmacies (KPP).

➤ To KPP

Improving pharmacy practice: KPP should work to fulfill the international and national level standards of good dispensing practice and community pharmacy services.

Improving customer Service: The quality of service must be improved to meet customer satisfaction and to advance the community pharmacy service. This will help the

enterprise to be a sustainable and significant player in community pharmacy sector. The enterprise should take courageous decisions to renovate the pharmacy service delivery and to upgrade the required facilities for the branch pharmacies. KPP should also focus to extend its services and roles, in the involvement of early detection, screening and treatment of NCD's

Expanding KPP branches: As clearly revealed in this study, KPP should open additional branches in Addis Ababa to address the community need for pharmacy retail services. Furthermore, KPP also should extend its business to whole sales and import services. This will help the organization to improve its logistics and supply chain system by minimizing the intermediators, which in turn helps to provide pharmaceutical items with lower prices, to minimize its dependability on external supplies & to improve stock availability. In fact, the enterprise should also conduct relevant and reliable scientific research for its further development future actions. For instance, financial feasibility study and the financial source of project expansions should be studied in detail.

Improving Human Resource Management: to solve the challenges and use the available opportunities, KPP as a company needs to improve its human resource management system. This may include conducting staff satisfaction survey to get insights of work-related issues and motivation of employees.

➤ **To National Regulatory Authorities / FMHACA & EFDA /**

As it is known, regulatory organization are responsible for creating rules and regulations, that can be used as a baseline for the safe use of medicines and medical equipment's to

promote positive health outcomes. Therefore, the authorities should create a favorable environment that could help community pharmacies to improve their limitations and advance their service delivery to the community.

➤ **To Addis Ababa City Administration**

The city administration should support and engage with KPP to expand and improve the community pharmacy services, as there is a plenty of untapped potential for community pharmacies in Addis Ababa city, as well as in Ethiopia.

Expanding the role of KPP as a community pharmacy service provider will contribute, for the improvement of the health care system in the city. Therefore, additional investment in community pharmacy could be strategically and financially beneficial to the city administration by improving the community health and wellbeing.

5.4 Limitations & Suggestions for Further Study

The major limitation of this study is that the findings were based on the response from KPP staffs only (the service provider). It would have been more meaningful, if the study included the views and responses of KPP customers. However, this study, with its limitation will have a significant importance in presentation the role of expanding KPP for the improvement of community pharmacy services in Addis Ababa. The researcher would like to forward his recommendation for further studies in the areas of chain community pharmacies, that can contribute to health care improvement.

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Annex-I: Questionnaire Consent Form

My name is Amare Gebrehiwot Temesgen, a postgraduate student at Addis Ababa University School of Commerce. I am carrying out research on “**The Roles of Expanding Kenema Public Pharmacies in improving Community Pharmacy Services in Addis Ababa**”, for the partial fulfilment of Master of Arts degree in Project Management.

All information collected through this questionnaire, will only be used for academic research purposes, in a way which will not allow identification of your personal responses.

For any comments or if you need to know the results of the study, you may contact me via my E- mail or mobile number given below.

Thank you in advance for voluntary participation & cooperation.

Very Kind Regards!

Amare Gebrehiwot

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Annex-II: Semi-Structured Questionnaires

I. Socio-Demographic Information of KPP Staff Respondents

1. Gender

☐ Male ☐ Female

2. Marital status ☐ Single ☐ Married ☐ Divorced ☐ Widowed

3. Age-----years

4. Education ☐ Diploma ☐ BSC ☐ MSC

other(specify)_____

5. Total years of work experience as a community pharmacist/druggist _____ years

6. Position in Kenema public pharmacy

☐ Junior Pharmacist ☐ Senior Pharmacist

☐ Junior Druggist ☐ Senior Druggist

II. Respondent's level of agreement on the current practices and roles of KPP

1. For the following questions below, please tick one which best describes the level of your agreement

S. A= strongly agree A= Agree N= Neutral D. A= Disagree S. D= strongly disagree

S. No	Activity	S. A	A	N	D.A	S. D
1	KPP is giving CPS with affordable price					
2	KPP have high level of customer trust					
3	Relatively to private pharmacies, KPP is reliable in terms of stock availability					
4	There is high level of cooperation & communication between KPP branches					
5	Proper and professional patient consultation is being practiced at KPP					
6	Proper labeling of medicines is being practiced at KPP					
7	The pharmacy premise is suitable for service delivery					
8	The pharmacy is convenient for persons with disabilities					
9	The pharmacy is sited at accessible location					
10	Overall, the current quality of service is acceptable					

III. Respondent's level of agreement on the need of KPP expansion

S. No	Activity	S. A	A	N	D.A	S. D
1	Due to increasing disease burden & population, additional KPP branches are essential					
2	Expanding branches can be financially feasible					
3	Opening additional pharmacy branches can be practical & manageable to KPP					
4	Opening additional branches will help to improve the service delivery to the community					
5	Business expansion & improvement projects can help KPP to be a leading chain pharmacy in Ethiopia					

IV. Open-ended/ semi-structured questions for respondents

1. How much is the average retail markup price in KPP?

2. Do you think private pharmacies are more expensive than public owned pharmacies? If yes, what could be the possible reasons?

3. How many customers/patients visit your pharmacy weekly (on Average)? Do you have sufficient dispensing & counseling time for each customer?

4. What are the main challenges of good dispensing practice at your pharmacy?

5. How do you describe your pharmacy premises?

6. For what purposes do your customers visit KPP pharmacies frequently. Multiple answers possible

- ☐ OTC
- ☐ Prescription medicine
- ☐ Chronic illness
- ☐ Medical advice
- ☐ Others (specify)_____

7. Do you think customers prefer Kenema public pharmacies than others?

- ☐ Yes
☐ No

If yes, what could be the main reasons for visiting KPP? Multiple answers possible.

- ☐ Good and competitive prices
☐ Location (pharmacy being close to work, close to home, or clinic)
☐ Presence of wide range of products/services ...Stock
☐ Quick and quality services given by pharmacist
☐ Good advice given by pharmacist
☐ Other reason (please specify) _____

8. How do you describe the linkage between different branches of KPP?

9. Do you think the number of KPP branches is sufficient to serve the community in & surrounding Addis Ababa City?

If your answer is NO, what do you recommend for the financial source of the KPP branch expansion?

- ☐ Lone form city administration
☐ From internal income
☐ Loan from other sources
☐ Other sources (please specify)

10. What will be the possible challenges of expanding KPP as a project?

Annex – III: List Kenema Public Pharmacies classified with number customers

S.No	Location of the branch Pharmacy	Designated Number for the branch	Category	Remark
1	Merkato	Number 01	A	Sample
2	Piassa	Number 02	A	Sample
3	Stadium	Number 03	A	
4	Arat killo	Number 04	A	
5	Kera	Number 05	A	
6	Lideta	Number 08	A	
7	Kazanchis	Number 10	A	Sample
8	Addisu Gebeya	Number 11	A	
9	Zewditu Hospital	Number 12	A	
10	Minilik Hospital	Number 13	A	
11	Anbessa Gibi	Number 14	A	
12	Tele Gibi	Number 17	A	
13	Shola	Number 18	A	
14	Semen Mazegaja	Number 38	A	Sample
15	Akaki	Number 06	B	
16	Gotera Shell – depo	Number 07	B	
17	Kotebe	Number 09	B	
18	Lideta M/M/C	Number 16	B	
19	Summit – 2	Number 20	B	Sample
20	Gelan	Number 21	B	
21	Tulu Dimtu	Number 22	B	
22	Bole Arabsa	Number 23	B	Sample
23	Jemo – 3	Number 26	B	Sample
24	Shegole	Number 30	B	
25	Bethel	Number 34	B	Sample
26	Jemo – 1	Number 37	B	
27	Kality	Number 39	B	
28	Mekanisa	Store number - 03	B	
29	Birchiko Condominium	Number 15	C	
30	Yeka Abado	Number 19	C	Sample
31	Deginet	Number 24	C	
32	Bole Bulbula	Number 25	C	
33	Ayat Tafo	Number 27	C	Sample
34	Haile Garment	Number 28	C	
35	Summit – 1	Number 29	C	Sample
36	Kara Kore	Number 31	C	

37	Bolu Ayat – 2	Number 32	C	
38	Bolu Ayat – 3	Number 33	C	
39	Ferensay	Number 35	C	Sample
40	Kilinto	Number 36	C	
41	Zenebework	Number 40	C	
42	Bole	Number 41	C	
43	Kolfe Health Center	Number 41	C	New branch

Appendix-III: Kenema Public Pharmacies classified with number customers

Source: (KPP & Own Survey, May 2023)