KIGALI INDEPENDENT UNIVERSITY ULK

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IMPACT OF INVENTORY MANAGEMENT TO THE FINANCIAL PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN RWANDA

CASE STUDY: LIBRAIRIE CARITAS LTD

PERIOD: (2021-2023)

A Dissertation submitted and presented to the School Of Economics and Business Studies in partial Fulfillment of the Academic requirements for the award of a Bachelor`s Degree in Accounting.

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Kigali, September 2024

DECLARATION

I, BAMPORINEZA Emmanuel, hereby declare that, the work presented in this dissertation entitled "IMPACT OF INVENTORY MANAGEMENT TO THE FINANCIAL PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN RWANDA, CASE STUDY: LIBRAIRIE CARITAS LTD, PERIOD: (2021-2023)" is my original work to the best of my knowledge and has been never entirely or in part submitted to any university or other institution of high learning for award of Bachelor's degree in Accounting.

Date: ……..

Signature: .....……..

BAMPORINEZA Emmanuel

CERTIFICATION

I certify that BAMPORINEZA Emmanuel, a student of Kigali Independent University ULK has been conducting his research about impact of inventory management to the financial performance of small and medium enterprises in Rwanda as a Dissertation for Bachelor's Degree in the Academic year 2023-2024 under my supervision and guidance.

Date: ……

Signature: ……

Supervisor: NSENGIYUMVA Joseph

DEDICATION

I dedicate this book to Monseigneur Anaclet MWUMVANEZA, Bishop of Nyundo Catholic Diocese; Monseigneur Alexis HABIYAMBERE, Bishop Emeritus of Nyundo Catholic Diocese; all priests of Nyundo Diocese.

To my family members, my classmates and all other students who will use this work for next research.

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My sincere thanks to my parents who contributed much to my studies and my life especially, for their ethical values provided to me while I was young.

I express my thanks to NSENGIYUMVA Joseph who supervised me for his time, constructive and innovative ideas given to me in this work. I cannot forget to present my thanks to all Lectures and teachers who taught me thought my way of studies.

Finally, I also thank all of my classmates for their encouragements and assistance in class.

God bless you!

BAMPORINEZA Emmanuel

ACRONYMS

A : Agree

COGS : Cost of goods sold

D : Disagree

EOQ : Economic Order Quantity

FIFO : First in First out

IAS : International Accounting Standards

IRS : Internal Revenue Service

JIT : just-in-time

LIFO : Last in Last out

Ltd : Limited

N : Neutral

N0 : Number

NRV : Net Realizable Value

Qty : Quantity

Rwfr : Rwandan francs

SA : Strongly agree

SARL : Société à responsabilité limitée

SBA : Small Business Administration

SD : Strongly disagree

SMBs : Small and medium businesses

SMEs : Small and medium enterprises

T.P. : Total price

U.P. **:** Unit price

WIP **:** Work in progress

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Abstract

This dissertation submitted and presented to school of Economics and Business Studies in fulfillment of the academic requirements for the awards of Bachelor's Degree in Accounting, for Academic year 2023-2024 entitled "Impact of inventory management to the financial performance of small and medium enterprises in Rwanda, case study: Librairie Caritas ltd, period: (2021-2023)", was done by BAMPORINEZA Emmanuel, student in ULK. The main objective of this study is to evaluate the effect of inventory management to the financial performance of SMEs in Rwanda. Specifically, this study intends to assess the effectiveness of inventory management in Librairie Caritas Ltd between 2021-2023 and to find out the contribution of inventory management on the financial performance of Librairie Caritas Ltd. It is the reason why this study tried to respond whether inventory management implemented in Librairie Caritas Ltd effectively and if inventory management contribute to the financial performance of Librairie Caritas Ltd. By using questionnaires given to the employees of Librairie Caritas Ltd taken by sampling in different departments, depending to the domain, and considering the information given by physical documents, the researcher proved that there is relationship between inventory management and financial performance of Librairie Caritas Ltd. The research identified that when inventory management was effectively implemented in Librairie Caritas Ltd, the financial performance was in good conditions but when inventory management was not implemented perfectly in Librairie Caritas Ltd, the financial performance was in bad conditions.

CHAPTER ONE: GENERAL INTRODUCTION

This chapter presents background of the study, problem statement, research questions, hypothesis, research objectives, scope of the study, significance of the study and structure of the study.

1.1. Background of the study

Inventory management is the assignment of planning, controlling, and keeping up the correct quality and quantity of materials while using the least level of resources (Silver, Pyke and Peterson 2014). Then, Inventory management ensures that there is efficient purchasing, storage and proper use of goods. Management of inventory includes guaranteeing a consistent supply of stock to keep away from stock outs and have sales that are uninterrupted and productive client benefit, keeping up adequate stock while at the same time there is an act of minimizing costs and time (Pandey, 2015).

In Rwanda like other many countries in East Africa, the issue is focused on the inventory management employed in small and medium enterprises with regard to profitability measurement. Specifically, the issue is proposed in order to obtain a better understanding of the relationship between inventory management practices like Just in Time, Fifo, Lifo, and Economic Order Quantity (EOQ) and good financial performance of a firm.

According to those issues, in small and medium enterprises (SMEs), management of inventory must be the key of goal achieving or not. It is necessary to be carefully regarding quantity and quality of products in order to maximize customer satisfaction. Thus, management of SMEs will be using all strategies required to satisfy customer regularly but the quantity must be in accordance with the rhythm of clients for avoiding overstock, which can cause some product to be damaged, out of date, becoming obsolete and then lead the company in loss. If a company is not able to manage well its stock, it cannot get enough liquidity to turn its activities.

Such a problem limit the company to have capacity to meet its short and long-term liabilities it means that it becomes insolvency. The firm stock contains one of the biggest and most substantial speculations of any retailer and manufacturing firm. Prudent inventory

management methodologies cannot only make a SMEs to increase its profits but also to payback its liabilities. The companies doing the same business like Librairie Caritas Ltd as selling books, stationery and Arts Objects sell in few seasons. So, the technics of Economic Order Quantity (EOQ) is high recommended for such a business. Thus, the company's management who does not have ability to moderate EOQ will either inapt to satisfy customers' needs and they lose regularly liquidity receiving, then they face the problem of solvency or they will do overstock, which lead them in lack of cash and they meet the problem of payback their liabilities.

It is also necessary to analyse inventory turnover ratio which help the company to measure how many times a company's inventory has been sold and replaced during the year. Then, if a company's inventory turnover is less than its industry average, it either has excessive inventory or the wrong types of inventory. In the event that a business has inadequate resources, its advantage breaks even with risk. According to Smith, W. (2013), solvency looks at advantages of liabilities and checks whether there are sufficient resources to pay the invoices. Then, Ratios are the most technics recognized to quantify liquidity, it additionally incorporates liabilities: lenders, charges payable, advances repayable, leases and everything that the business owes.

We cannot forget another problem of bad management of inventory by ordering items types, which are not really needed at the market, then after a given period, some of them become dead stock. Moreover, in many SMEs, the storekeepers have laziness in storing, then instead of putting the last purchased products in a situation where it will be easy to reach when needed, they put far and the last products are easily available to be taken which caused to be sold firstly instead of being used lastly. For this time, the SMEs uses sometimes the LIFO method yet their policy was FIFO method according to the kind of item.

According to Paul D. Kimmel, Jerry K. Weygandt, Donald E. Kieso & Barbara Trenholm (2009), With FIFO method, the cost of the oldest goods on hand is allocated to the cost of goods sold. This means that the cost of the most recent purchases is assumed to remain in ending inventory. All those problems are the basis causes in lack of liquidity in the SMEs, then many of them close the door and others, whose shareholders are able, inject other cash

and setting others strategies for improving financial performance of their business in order to try reaching their target.

1.2. Problem statement

The effectiveness of inventory management systems depends on the quality of its information and its users; because of this issue, it is necessary to investigate the effectiveness of inventory management in SMEs.

Therefore, SMEs offer services or purchase products, manage inventory using different technics and sell goods or services to their customers. By having big quantity of inventory, they use funds from owner's Equity and Liabilities, which can be short or long-term Liability.

Then, the viability, stability, solvency and profitability of SMEs refer to the contribution of inventory management. Bad inventory management is among the source of company's loss and insolvency. The issue for my research is to find out if inventory management in Librairie Caritas Ltd contribute really to its financial performance.

The motivation of conducting this research is on the curiosity of researcher as managing director of Librairie Caritas Ltd when the researcher received hand over in July 2023, and looking at its financial statements, he was surprised that the current liabilities were higher when cash and cash equivalent is not enough to cover the current liabilities yet the inventory was so big in quantity. Then he took decision to profit this opportunity of dissertation for studying whether inventory management can have impact on financial performance of SMEs in Rwanda especially in Librairie Caritas Ltd.

1.3. Research questions

The main concern of the researchers is to answer the following questions:

i. Is inventory management implemented in Librairie Caritas Ltd effectively?

ii. Does inventory management contribute to the financial performance of Librairie Caritas Ltd?

1.4. Hypotheses

From the above point of view, the researcher has anticipated answers to the question of the research basing on two following hypothesis:

1. Inventory management is implemented in Librairie Caritas Ltd effectively.

2. Inventory management contributes to the financial performance of Librairie Caritas Ltd.

1.5. Research objectives

Objectives of this study are grouped into two categories, namely: General and specific objectives.

1.5.1. General objective

The main objective of this study is to evaluate the effect of inventory management to the financial performance of SMEs in Rwanda.

1.5.2. Specific objectives

Specifically, this study intends to achieve the following specific objectives:

- To assess the effectiveness of inventory management in Librairie Caritas Ltd between 2021-2023.
- To find out the contribution of inventory management on the financial performance of Librairie Caritas Ltd.

1.6. Scope of the study

The study scope based on time, domain and geographical.

1.6.1. Time scope

In time, this research is limited to the period between 2021 and 2023, mainly because it is in that period Librairie Caritas Ltd face the big issue of paying back its liabilities yet it had inventory with big value.

1.6.2. Scope in domain

The research was limited to cost accounting, management accounting, accounting workshop and related to general understanding of the impact of inventory management to the financial

performance of small and medium enterprises with a special focus of Librairie Caritas Ltd as a case study.

1.6.3. Geographical scope

The study was carried out in Librairie Caritas Ltd, which is in Kigali City, Nyarugenge District, Nyarugenge sector in Kiyovu cell.

1.7. Significance of the study

This study presents three different interests, which are personal; SMEs including Librairie Caritas Ltd, academic and social interest.

1.7.1. Personal interest

This research work helped the researchers to know the impact of inventory management to the financial performance of small and medium enterprises and increase their knowledge in aspect of inventory management in performance of SMEs in Rwanda.

1.7.2. Academic and scientific interest

The research findings and report will serve as the guideline to other researchers who would need to be involved into similar research. This study was fundamentally carried out for the academic purposes as a partial requirement for the acquisition of bachelor's. Degree in the Kigali independent university ULK.

1.7.3. Social interest

This research will provide more information to the communities of the country and other people who want to know how inventory management contributes in economy and financial performance of SMEs in Rwanda.

1.8. Structure of the study

The study consisted chapter one as general introduction, the general introduction is about the background of the study, significance of the study, the scope of the study, statement of the problem, hypothesis of the study, objectives of the study, and Structure of study.

Chapter two is the literature review, it contains definitions of key concepts, both theoretical, empirical related to the topic and what other researchers could have said in the same field.

The third chapter examines the research methodology.

The Fourth chapter consist of presentation of findings, finally this research ended with the general conclusion and recommendation.

CHAPTER TWO: LITERATURE REVIEW

This chapter is focused on providing the theoretical models that are related to the topic of this study. Then, it presents the findings of the past researchers in regards to the impact of inventory management practices and financial performance of Small and Medium Enterprises.

2.1. Definitions of key concepts

2.1.1. Inventory

Inventory refers to the value or quantity of raw materials, supplies, work in progress (WIP) and finished stock that are kept or stored for use if need arises. It means that Inventory can be categorized in three different ways, including raw materials, work-in-progress, and finished goods. In case of SMEs, inventory is defined as a company's goods and products that are ready to be sold (Lysons, K and Gillingham, M. 2003).

The Internal Revenue Service (IRS) classifies merchandise and supplies as additional categories of inventory.

- **Raw materials:** Are unprocessed materials used to produce a good.
- **Work-in-progress inventory:** Is the partially finished goods waiting for completion and resale. Work-in-progress inventory is also known as inventory on the production floor. A half-assembled airliner or a partially completed is often considered to be a work-in-process inventory.

According to Kothari (1992), Work in progress is materials that have been partly fabricated but are not yet completed. Finished goods are completed items ready for shipment. Inventory management is the art and science of maintaining stock levels of a given given kind of items incurring the least cost consistent with other relevant targets and objectives set by management. It is important that managers organizations that deals with inventory, to have in mind, the objective of satisfying customer needs and keeping inventory costs at a minimum level.

Finished goods: They are products that go through the production process, and are completed and ready for sale. Retailers typically refer to this inventory as their merchandise.

2.1.2. Inventory management

Inventory management is defined as the practice of ordering, storing, tracking and controlling inventory. Inventory represents investments made for obtaining a return (Duru,Oleka&Okpe, 20014). Inadequate inventory has an adverse potential effect on the smooth running of the business, while excess inventory involve unnecessary cost, which can reduce the entity's profits (Panigrahi, 2013).

2.1.3. Finance

Finance is concerned with the art and science of managing money. The finance discipline considers how business entities raise, spend, and invest money and how individuals divide their limited financial resources to achieve personal and family goals (Gregory D. Brown 2024).

2.1.4. Performance

It is the process of carrying out or accomplishing an action, work, occupation, task, or function successfully. Then for SMEs, performance is a firm's ability to profit from its resources and achieve its objectives (Priscilla Navarro, 2023).

2.1.5. Financial performance

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. The term is also used as a general measure of a firm's overall financial health over a given period. Thus, it is a subjective measure of how well a firm can use its assets from primary mode of business and generate revenues (Priscilla Navarro, 2023).

2.1.6. Small and Medium Enterprises (SMEs)

i. In General: In general, Small and Medium Enterprises (SMEs), also called "small and medium-sized businesses (SMBs)," are businesses that fall below certain revenue, assets or employee. These limits vary between countries with professional and government agencies determining the thresholds in each country or region. In the United States, the Small Business Administration (SBA) determines the official guidelines for small and medium-sized

businesses. It factors in the type of business, number of employees, industry and revenue. Most companies with less than 500 employees are considered to be SMEs.

ii. In Rwanda: According to the Ministry of Trade and Industry, small enterprise is a business entity which has net capital investments which is higher than 0.5 million of Rwandan francs up to 15 million of Rwandan francs and number of employees is between 4 persons and 30 persons.

Table 2. 1: Enterprises categories in Rwanda

Size of enterprise	**Net capital investments (million of RwF)**	**Annual turnover (million RwF)**	**Number of Employees**
Micro-enterprise	Less than 0.5	Less than 0.3	1 to 3
Small-enterprise	0.5 to 15	0.3 to 12	4 to 30
Medium-enterprise	15 to 75	12 to 50	31 to 100
Large enterprise	More than 75	More than 50	More than 100

Source : Ministry of Trade and Industry (2010) Enterprises categories as at 13th September 2012.

2.2. Theories related to inventory management

Management of inventory is essentially about specifying the size and placement of stocked items. Then, inventory management is required at various divisions inside an office or inside numerous areas of a supply system to monitor the typical and planned course of production against the arbitrary disturbance of coming up with inadequate materials or merchandise. It also involves decisions on lead-time, carrying costs of stock, stocks management, stock estimating, stock valuation, future stock price forecasting, physical stock, available physical space for stock, management of the quality of inventory, returns and broken products and forecasting on expected demand.

Possessing a high amount of inventory for a long time is usually not a good idea for a business. That is because of the challenges it presents, including storage costs, spoilage costs, and the threat of obsolescence. Possessing too little inventory also has its disadvantages. For

instance, a company runs the risk of market share erosion and losing profit from potential sales.

Inventory management concerns mostly inventory control and store keeping. Inventory control needs that store keeping function is reliably performed in the industry. Store keeping involves the store of materials and keeping the record of stores.

2.2.1. Activities performed by store keeper

a. Issuing requisitions for the purchase of goods.

b. Receiving purchased goods from receiving department

c. Storing goods in proper places to identify and locate items without delay.

d. Issuing of goods to production and service departments and ensure that goods issues are properly authorized and accounted for.

e. Taking regularly physical stock count and stock control

f. Classifying and identifying goods by their nature.

g. Protecting goods against fire, theft, damage and other threats

h. Maintaining proper record of inventory.

The main objective of material or stock control techniques of inventory is to ensure that costs associated with stock or inventory are minimized.

These includes: - Currying costs

- Ordering costs

- Purchase costs

Different inventory techniques are applied by different business for their best inventory management.

2.2.2. Objective of inventory management

The main objective of inventory management is to ensure that inventories are held at the most minimal conceivable cost and to guarantee continuous supplies for on-going activities.

When settling on decisions on stock, the management needs to build up a bargain between various cost parts, for example, the cost of providing stock, stock holding expense and cost coming about because of adequate inventories. Stock control is the activity, which composes the accessibility of items to the final consumer. It organizes the acquisition, processing and distribution capacities to take care of the market demand.

Inventory management forecasts and strategies, such as a just-in-time (JIT) inventory system (with backflush costing), can help companies minimize inventory costs because goods are created or received only when needed.

It is always a good idea for companies to invest in a good inventory management system. This is especially true for larger businesses with multiple sales channels and storage facilities. These systems are able to identify waste, low turnover, and fraud/robbery.

One way to track the performance of a business is the speed of its inventory turnover. When a business sells inventory at a faster rate than its competitors do, it incurs lower holding costs and decreased opportunity costs. As a result, they often outperform, since this helps with the efficiency of its sale of goods.

2.2.3. Tools of inventory control

There are many tools used in inventory control, among those tools; there are not only techniques helping to manage inventory but also methods, which are used to evaluate inventory. In this chapter, I am going to focus on Economic Order Quantity technique, Inventory turnover technique and methods of evaluating inventory.

2.2.3.1. Economic Order Quantity technique

The Economic order quantity helps the organization to recognize the smallest possible point in ordering expenses and transporting expenses related to an inventory. The strategy is simultaneously to guarantee that client orders are carried out promptly by the proprietor of the inventory. The formula uses a few fundamental assumptions to define this perfect balance (Lyson, 2015).

Economic Order Quantity (EOQ) denotes the optimal ordering level of an inventory which helps in the minimization of expenses. This inventory management approach (EOQ) makes

the assumption that the demand for an item is well known, the lead time is also well known and constant, that the receipt of an order happens immediately, the discounts of quantity are not computed as part of the model and that inventory's shortages do not happen. The EOQ graphs demonstrate the association between the costs of ordering, the expense of holding inventories and the economic order quantity.

Thus, the two main problems of procurement of goods or materials are:

a. The quantity to purchase, how much to buy

b. The time to buy.

The economic order quantity is the optimum order size that will help in minimizing currying costs or holding costs and ordering costs.

The EoQ is the optimum or the most favorable quantity that should be purchased each time the purchases are made. Economic order quantity can be mathematically determined as follows: **Formula:**

$$EoQ = \sqrt{\frac{2*D*C}{M}}$$

Where D: represents total demand in year or annual usage in units

C : Represents total ordering costs per order

M : Represents total currying costs per unit

EoQ : Economic order Quantity

Determining stock or inventory levels

Stores control involve predetermining for each item of material, four critical levels which includes:

- Reorder level (when to order)
- Minimum stock level or safety stock
- Maximum stock level

- Average stock level

a). Re-order Level

This provides amount of units when the economic order quantity should be ordered. It represents the level at which it becomes necessary to initiate purchase orders for fresh supplies. It is the important decision point to make a new order. The reorder level is set after considering the following issues:

-The expected usage or rate of consumption

- The time interval between initiating an order and its receipt, which is called "lead time"

- The minimum inventory or safety stock.

Formula: Re-order = Max. Usage x Max. Lead time period + Safety stock

b). Minimum Stock Level or safety stock

The minimum stock level is maintained to avoid stock outs (this is the situation where nothing is left in store). Minimum stock level is the quantity below which the stock of an item should not be accepted to fall. The safety stock or minimum stock should be used only in abnormal circumstances.

N.B When the usage pattern is well known with the well known lead-time, the safety stock would not be needed.

Formula:

Minimum stock level = Re-order level - (Average Rate of consumption * Average Lead time)= Safety stock

or

Minimum stock level = (Max. Rate of consumption - Average Rate of consumption) * Lead time

c). Maximum Stock Level

This is the uppermost or highest amount of stock the company can maintain at any time. The maximum stock level indicates the level above which the stock should not be allowed to rise.The fixation of maximum level requires the consideration of the following factors:

(1) Rate of consumption of materials.

(2) Re-order quantity

(3) Availability of storage and cost of storing including insurance costs.

(4) Price fluctuations

(5) Risk of absolescence

Formula:

Maximum stock level = Reorder level + EoQ - (Minim. Usage * Minimum Lead time)

(d) Average Stock level

Formula:

Average Stock Level = (Minimum Level + Maximum Stock Level) / 2

or

Average Stock Level = (Minimum Level + Reorder Quantity or EoQ) /2

N.B: Danger Level:

The danger level is the level below the minimum stock level or safety stock. It shows the stage or situations of stock where if no action which is taken to replenish the stock, the stores will be completely exhausted or finished, and this will lead to production stoppage.

For Drury (2004), asserts that inventory costs include holding costs, ordering costs and shortage costs. Holding costs relate to costs of having physical items in stock. These include insurance, obsolescence and opportunity costs associated with having funds, which could be elsewhere but are tied up in inventory. Ordering costs are costs of placing an order and receiving inventory. These include determining how much is needed, preparing invoices,

transport costs and the cost of inspecting goods. Shortage costs result when demand exceeds the supply of inventory on hand.

The costs include opportunity costs of making a sale, loss of customer goodwill, late charges and similar costs. According to Paul D. Kimmel, Jerry K. Weygandt, Donald E. Kieso & Barbara Trenholm (2009), ratios are important for any analysis of a company's performance. The ratios that can help us in analyzing the level of inventory management are the inventory turnover and days in inventory ratios, both of which help a company manage its inventory levels. These ratios are also important in evaluating a company's liquidity; for example, its ability to pay obligations that are expected to come due in the next year. Even if the current ratio is also a measure of liquidity.

2.2.3.2. Inventory turnover technique

Inventory turnover is a key part of inventory management. Also called stock turnover, this is a metric that measures how much of a company's inventory is sold, replaced, or used and how often. Consumer demand is a key indicator that can determine whether inventory levels will turn over at a quick pace or if they won't move at all. Higher demand typically means that a company's products and services will move from the shelves into consumers' hands quickly while weak demand often leads to a slow turnover rate.

A study conducted by Garcia-Teruel and Martínez-Solano (2012) carried out a study on working capital management of 8872 SMEs from Spain on the profitability of their ventures for the period 1996- 2002. The study revealed that the administrators of firms should reduce their inventories and the credit period offered to their customers in order to add more value to their businesses and enhance solvency of the firm.

The firm stock contains one of the biggest and most substantial speculations of any retailer or manufacturing firm. Prudent inventory management methodologies cannot only make an enterprise to increase its profits but also can mean the contrast between a business flourishing or barely surviving. Inventory Management Literacy Solvency position. A company's inventory turnover is often expressed as a ratio. The inventory turnover ratio is calculated using the following formula:

Inventory Ratio = COGS ÷ Average Value of Inventory

Company leaders can use this formula to make important decisions about whether they should continue to manufacture certain products and services or determine whether there are issues that need to be addressed.

2.2.3.3. Methods of valuating inventory

It required using the appropriate methods in order to valuate inventory. Methods to value the inventory include last-in first-out, first-in first-out, and the weighted average method.

- **First-in, first-out (FIFO) method:** This method says that the cost of goods sold is based on the cost of the earliest purchased materials. The carrying cost of the remaining inventory, on the other hand, is based on the cost of the latest purchased materials.
- **Last-in, first-out (LIFO) method**: This method states that the cost of goods sold is valued using the cost of the latest purchased materials, while the value of the remaining inventory is based on the earliest purchased materials.
- **Weighted average method**: This method requires valuing both inventory and the cost of goods sold based on the average cost of all materials bought during the period.

2.3. Theories related to performance of SMEs

2.3.1. Elements of financial performance

The Statement of Financial Position is a formal statement which shows the financial condition of the entity as at a certain date. It includes information on the three elements of financial position which are: assets, equity and liabilities.

2.3.2. Indicators of financial performance

2.3.2.1. Return on asset and Return on Owner's equity

The traditional measures of profitability of any business are its return on assets (ROA) and return on equity (ROE). Return on assets is a profitability ratio that shows how much profit a company is able to generate from its assets. Thus, it measures how efficient a company's management is in generating profit from their total assets on their balance sheet.

Formula: ROA = $\frac{\text{Net profit}}{\text{Total Assets}}$*100

Return on equity (ROE) is an indicator of the company`s profitability by measuring how much profit the company generated with the money invested by the common stock owners (Tim Stobierski, 2020).

Formula: ROE = $\frac{\text{Net profit}}{\text{Total Equity}}$*100

2.3.2.2. Gross profit margin

Gross profit margin simply gives the percentage of sales available to cover general administrative expenses and other operating costs.

Formula: Gross Profit Margin = $\frac{\text{Gross Profit}}{\text{Sales}}$*100

2.3.2.3. Net profit margin

Net profit margin is the percentage of profit earned on sales, this ratio, is important because business need to make a profit to survive in the long term.

Formula: Net Profit Margin = $\frac{\text{Net income}}{\text{Sales}}$*100

2.3.2.4. Current ratio

The current ratio is the balance sheet financial performance measure of company liquidity, the current ratio indicates a company`s ability to meet short term debt obligations. The current ratio measure whether the firm has or does not have enough resources to pay its debts. Over the next twelve months. The current ratio is also known as the working capital ratio (Tim Stobierski, 2020).

Formula: Current ratio = $\frac{\text{Current assets}}{\text{Current liabilities}}$*100

Both variables as shown on the balance sheet (statement of financial position). The higher the ratio, the more the company is commonly acceptable current ratio is 2 it is a comfortable financial position for many enterprises.

Acceptable current ratio value from industry to industry. For most industrial companies, are 1.5 may be an acceptable current ratio. Lower values for the current ratio (Values less than

1) indicates that a firm may have difficulty meeting current obligations. And that it can affect the investors to don`t trust that firm. If the current ratio is too high (much more than 2) the company may not be using its current assets or its short term financial facilities efficiently (Tim Stobierski, 2020).

2.3.2.5. Quick ratio

Quick ratio is the measure of the company`s ability to meet its short term obligations by using its most liquid assets. Quick assets include those current assets that presumably can be quickly converted to cash at close to their book values (Tim Stobierski, 2020).

Formula: Quick ratio = $\frac{\textbf{Current assets} - \textbf{inventories}}{\textbf{Current liabilities}} * 100$

Calculating of liquid assets inventories are deducted as less liquid from all current assets. All those variables are shown on the Statement of financial position.

The higher the quick ratio the better the position of the company. The commonly acceptable quick ratio is one (Tim Stobierski, 2020).

2.3.2.6. Inventory turnover

In given period inventory turnover it is a measure of the number of times is sold or used in a given period such us one year. It is a good indicator of inventory quality whether it is obsolete or not. Efficient buying practices and inventory management, it is very important because gross profit earned each time inventory is turned over. Also it is called Stock turnover (Tim Stobierski, 2020).

Formula: Inventory turnover = $\frac{\textbf{Cost of goods sold}}{\textbf{Average inventory}}$

There is no general norm of inventory turnover ratio; it should be compared against industry average (Tim Stobierski, 2020).

2.4. Empirical literature review

A study conducted by Dr. Penina Chepkorir Langat (2018) concludes that the relationship between inventory management and financial performance position of micro entrepreneurs is positive and statistically significant. The study also found that microentrepreneurs in

Nakuru Town (in Kenya) regularly conduct an audit of the entire inventory and often experience cases of stock outs and that they do not engage the supplier to reduce cases of long lead times which may affect the solvency position.

With this study, Paul D. Kimmel, Jerry K. Weygandt, Donald E. Kieso & Barbara Trenholm (2009) give a recommendation that micro entrepreneurs should engage the supplier to reduce cases of long lead times, which may enhance inventory management and enhance improving the solvency position.

Another study done by Faraz Khan & Dr. Danish Ahmed Siddiqui (2019), studied the impact of inventory management on firms' performance of departmental stores operating in Karachi (Pakistani) conclude that inventory control management have a strong impact on the firm's performance and profitability as they allow quantitative and qualitative measure of the movement of inventory, which allows strategic decisions to be made that increase efficiency in the process of the supply chain and lower costs.

A study done by Maurya, Vohra and Gupta (2008) provide that inventory management is one of the key areas towards effective tool for cost reduction in business units. Effective Management of inventory will be the major function area of production and operation manager. Effective inventory management is critical to retailing industry because inventory has strong relationship between sales and customer service. Inventory management allows businesses to minimize inventory costs as they create or receive goods on an as-needed basis. Company management, analysts, and investors can use a company's inventory turnover to determine how many times it sells its products over a certain period. Inventory turnover can indicate whether a company has too much or too little inventory on hand.

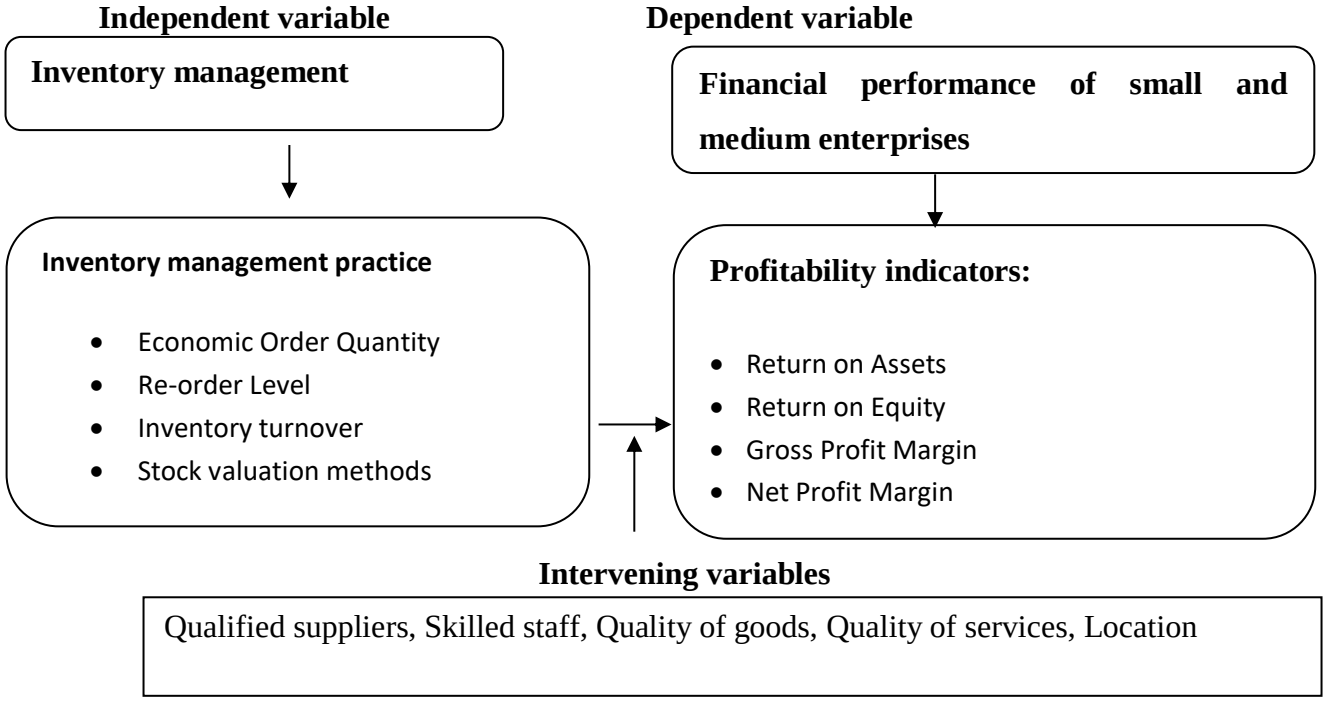
2.5. Research gap

Regarding impact of inventory management to the financial performance of SMEs, previous research focused on manufacturing companies, which hold inventory of raw material, work in progress and finished goods. Then they did not consider those entities, which conduct their business day-by-day using inventory purchased for being sold. It is the reason why the researcher choose to conduct his research focusing on those business entities which are not manufacturing companies.

Furthermore, in previous research, the level of implementing inventory management was only supported by questionnaires although the physical documents used in inventory valuation are key source of information to indicate the effectiveness of inventory management. Thus, the previous research considered Economic Order Quantity, re-order level, inventory turnover, just in time as only the indicators of inventory management though, inventory valuation methods used in business entity is also a good indicator of inventory management. In this research, the researcher used inventory valuation methods to verify the effectiveness of inventory management.

2.6. Conceptual framework

A conceptual framework is an analytical tool with several variations and contexts. It is used to make conceptual distinctions and organize ideas.



Source: Researcher, 2024

CHAPTER THREE: RESEARCH METHODOLOGY

For achieving the research objectives, this chapter is mainly focused on presenting various research designs and methodologies, which are used in this research. This study used inductive approach where began by collecting data, once considerable amount of data has been collected, the researcher takes time out from the data collected and stepping back to get a bird's eye view of the data. The last step, the researcher looks for patterns in the data and working to develop a theory that will explain the patterns.

3.1. Research Design

According to Ghoshi, (2002) proved that a research design is a plan of the proposed research work. A research designs as the structure of any scientific work. He also pointed out that, it gives direction and systemizes the research and each design has its own advantages and disadvantages. This will a cross-sectional study where the quantitative study involved the use of numbers to assess information, which information will later analyzed using statistical analysis.

3.2. Study Population

In statistics, target population is the specific population about which information is desired. A population is a well-defined or set of people, services, elements and events, group of things or households that are being investigated.

This definition ensures that population of interest is homogeneous. And by population the researcher means complete census of the sampling frames. It is the reason why the researcher choose employees (permanent and occasional) of Librairie Caritas Ltd working in departments related to the inventory management information (storekeeping, accounting, selling, finance) as population because the researcher realized that employees of those departments involve in the day-to-day activities within Librairie Caritas Ltd. After analyzing annual report of Librairie Caritas Ltd from 2021 up to 2023 the population found totaling 24 employees working in finance, accounting, selling and storekeeping departments.

3.3. Sample size and sampling techniques

The researcher used the Purposive sampling which refers to intentionally selecting participants based on their characteristics, knowledge and experiences. Then, this method of sampling involves recruiting individuals primarily because they are available, willing, or easy to access or contact on a practical level. Purposive sampling can be particularly useful in the following situations: When the population of interest is small, for interest in studying a specific subgroup within the population or to study a rare or unusual phenomenon (Godambe, 1982).

3.3.1. Sample size

A sample is defined as all the people or classes selected to take part in the research, considering the nature of the research without also forgetting time, money and size of the institution as the major limitation of the assignment, Sample is a subset, or same part of larger population (Solven, 2010). As the population is less than 100 people, the researcher don't need a sampling technique, it is the reason why the population took is at the same time the sample size.

3.3.2. Sampling techniques

Purposive sampling has been used by the researcher as the basic sampling technique where a researcher selects a group of subjects (a sample) for study from a larger group or population (Godambe, 1982).

3.4. Data collections techniques

3.4.1. Questionnaire technique

A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. The questionnaires technique was used to collect information about the impact of inventory management to the financial performance of Librairie Caritas Ltd, 24 respondents were selected by giving them the questionnaires to respond.

The questionnaire was addressed to 24 staff of Librairie Caritas Ltd in order to arise in them a free expression on inventory management and financial performance in Librairie Caritas

Ltd. This technique gives a clear understanding on how the Inventory management has an effect on financial performance in Librairie Caritas Ltd.

3.4.2. Interview technique

This technique assumes that, subjects chosen as respondent before being interviewed have information required. They can understand the questions put forward to them and can be used to give honest answers face to face with researcher. The researcher asks questions to the selected individuals in relation to the pre-determined objectives. Questions are asked in relation to the targets that would help to get direct information from the respondents in field of research. The interview permits clarification of questions as having higher response rate than written questionnaires.

In this research, the primary data is composed of information gathered from all interviewees. Then in this research, the researcher used primary data in which interview technique was used to get some information that has not been studied on. Then, the researcher designed interview questions, which helped him to identify the inventory management, and financial performance of Librairie Caritas Ltd. Face to face interview was used by using the questionnaire where the researcher asked questions to employees of Librairie Caritas Ltd.

3.4.3. Documentary technique

After the primary data, secondary data was mainly collected through review of various documents for the purpose of attaining sufficient and reliable information where the researcher analyzed the audit reports, Librairie Caritas Ltd annual reports, fiche of stocks, laws and regulations, procedures manuals in order to get real information on inventory management and the financial performance of librairie caritas Ltd.

3.4.4. Validity and reliability tests

Validity is the extent to which a test measures what it is supposed to measure. The question of validity is raised in the context of the three points made above, the form of the test, the purpose of the test and entire population for whom it is intended (Cronbach, 2016). The validity of instruments was used to test validity of the instruments to be used. This included the item analysis that is carried out with the aid of the supervisor, research experts

knowledgeable about the themes of the study. The process involved in examining and assessing each item in each of the instruments to establish whether the item brings out what it is expected to do.

3.5. Data processing and analysis

3.5.1. Data analysis instruments

The process of data analysis as used by the researcher after data collection in order to make deep interpretation and understanding by using analysis methods as follow:

3.5.2. Analytical method

This method consists to analyze data harvest from ground and to interpret them (Tandon &Subramanian, 2017).

3.5.3. Statistical method

This one consists to present data, harvested on the ground under from tables and graphics. It is also about to make some calculations (Ranyon, 2015).

3.5.4. Comparative method

This helped the tesearcher to compare data that has been gathered during the period of study in Librairie Caritas Ltd.

3.5.5. Synthetic method

According to Grawitz (2017), it is synthesized, that is to say globalized information and data into a coherent whole. This method allows the researchers to synthesize the information gathered. It is the reason why, this method helped the researcher to synthesize the information gathered from Librairie Caritas Ltd. Then, it helped to summarize the result of my own research as a conclusion; it also allowed the researcher to synthesize data collected for interview technique.

3.5.6. Historical method

It is about to describe the history of a phenomenon in order to show its evolution, (Grawitz, N., 2000:13). This method helped the researcher in getting and interpreting the past events such as: Librairie Caritas Ltd services, its performance and other results found during the period of study.

3.6. Data processing analysis

Processing data is concerned with classifying responses into meaning categories called codes. Data processing refers to the transformation of the respondents' views into meaning form. Data process to the objectives of the study that is considered and transformed into meaningful information for interpretation and understanding. This process consists of editing, coding and tabulation (Roth, 2015).

3.6.1. Editing

According to Cochran (2017); editing is the process whereby the completed questionnaires and interview scheduled was analyzed in the hope of amending/ recording errors, or at least deleting data that are obviously erroneous. Editing was used in order to check completeness, accuracy, uniformity, eligibility and comprehensibility.

3.6.2. Coding

According to Kalton (2015); defined coding as classifying answers into meaning categories so as to come out with their responses, in this study coding was applied for classify the data aimed at easy manipulation, interview and receiving questions.

3.6.3. Tabulation

According to Nachmias (2016); tabulation is putting the data into some kind of statistical tables such as percentage and frequency occurrence of responses to particular questions. According to Baily (2014); not all data can be presented. The variables to be presented are those central to the goals of the study. She defines data analysis variables records in order to obtain quantitative data about the past. The edited and coded data was transferred into tables constructed basing mainly on the variables considered under the study.

3.7. Ethical considerations

Research ethics is about the responsibility of researcher for being honest and respectful to all individuals who may be affected by the research study results. The primary data was collected from field and only was used for academic consideration. Besides, as effective book keeping is considered as a competitive edge by various institutions, the secondary information gathered was sensitive. Thus, the researcher ensure that all the information

gathered was solely use for the intended purpose and that it was treated with confidentiality. In data processing and analysis, there is no kind of data manipulation and the interpretation was impartially in order to reflect to the reality. The information provided in this research was kept confidential and results of research was used for the objective of this research study.

3.8. Limitation

During this research, the researcher faces the constraint of time because the time allowed to do this research is not enough to allow exhaustive study and obtain all the essential information for much more suitable conclusions for giving all necessary suggestions and recommendations. The problem was minimized by putting much effort on this research so as to meet the deadline.

CHAPTER FOUR: PRESENTATION OF FINDINGS

Introduction

This chapter presents data collected from the field concerning the period covered by researchers guided by questionnaire guide, researchers collected data from respondents in Librairie Caritas Ltd, and the presentation is comprised of background information about the respondents for in depth information on the motivation tools used by Librairie Caritas Ltd. The main objective of this chapter was to verify the hypothesis of the study.

4.1. A short presentation of Librairie Caritas Ltd

The Librairie Caritas Ltd was established in 1976, as among departments of the internal organization of Caritas Rwanda. It has duties of financing Caritas Rwanda in its activities, which are taking in charge of most vulnerable people in Rwanda.

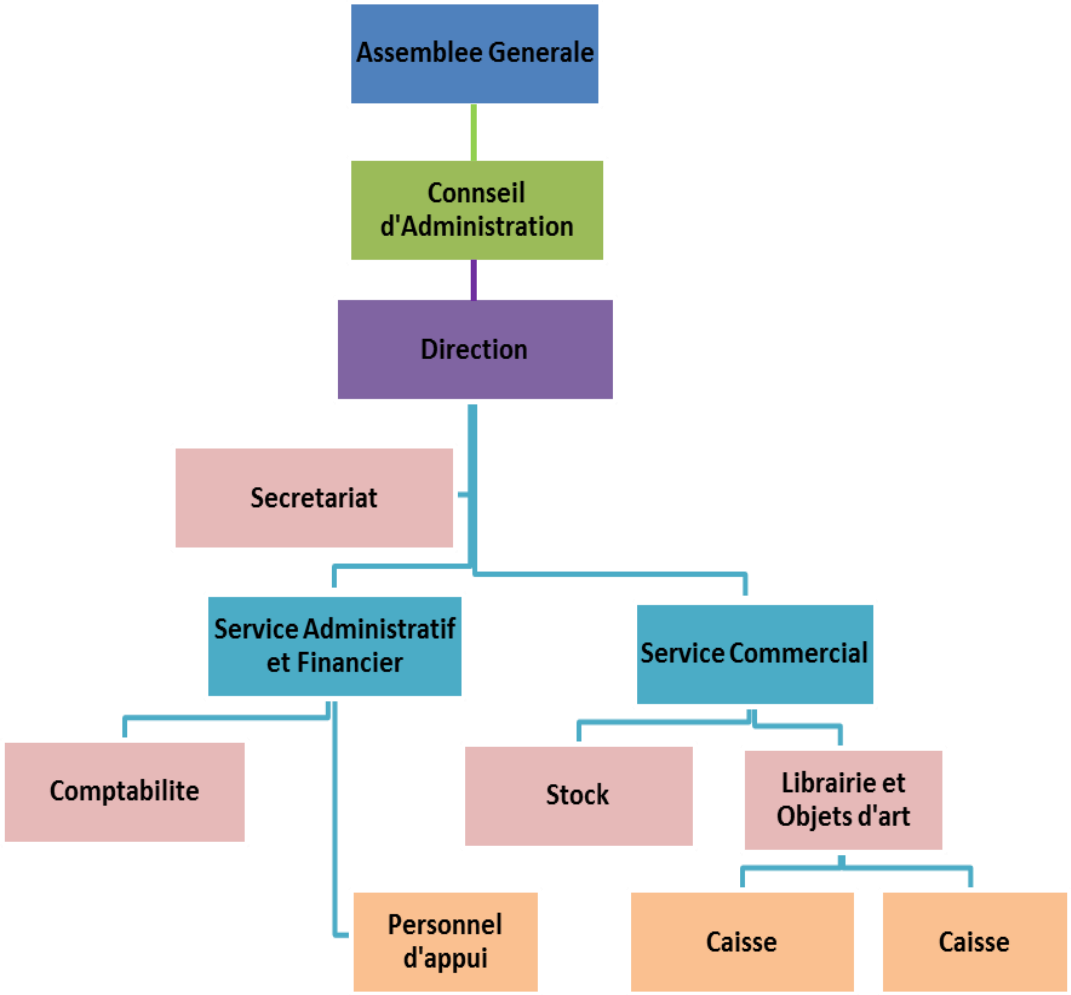
Its mission is to help the structure of Caritas Rwanda, as a non-profit organization in order to accomplish its objectives. In fact, it sales books to the public, stationery and Arts Objects. As stated above, the Librairie Caritas started its business in 1976 but it was interconnected with Caritas Rwanda, as its department.

It is from May 13, 2002 that the Librairie Caritas took the status of limited liability company (SARL) with three shareholders: The Episcopal Conference of Rwanda, the Archdiocese of Kigali and Caritas Rwanda. The General Secretariat of Caritas Rwanda ensured the management of all activities. In 2014, Librairie Caritas SARL became Librairie Caritas Ltd and it becoming completely independent with a single shareholder, which is Caritas Rwanda. Librairie Caritas Ltd has five Board members chosen by its General Assembly (G.A), which is at the same time as Caritas Rwanda.

4.1.1. Mission

Its mission is getting funds to finance the activities of Caritas Rwanda, as a non-profit organization in order to accomplish its objectives which is supporting the poor. In fact, it sales books to the public, stationery and Arts Objects.

4.1.2. Organization structure of Librairie Caritas Ltd



4.2. Evaluation of effectiveness of inventory management in Librairie Caritas Ltd

This evaluation shows a comprehensive analysis and the discussion of the results as obtained from various interviews, questionnaire and physical documents within Librairie Caritas Ltd. The design of the analysis presents the summarized answers of the study interviewed questions the effectiveness of inventory management system of Librairie Caritas Ltd.

4.2.1. Analysis and interpretation of data

This section deals with profile of respondents, their perception relating to inventory management found in Librairie Caritas Ltd, asses retail companies, the perception of respondents on financial performance and the relationship between inventory management and financial performance of Librairie Caritas Ltd.

4.2.1.1. Respondent profile

The respondent profile was analysed through gender, age group, marital status, education level, occupation and experience.

In respect to the gender of respondents, table 4.1 presents data as follows:

Table 4. 1: Distribution of respondents by gender

Categories	**Frequency**	**Percent (%)**
Male	16	66.66
Female	8	33.34
Total	**24**	**100**

Source: Field data, 2023

Table 4.1 shows that out of 24 respondents 16 (66.66%) were male while 8 (33.34%) were female. It is seen that the number of male was greater than the number of female. The situation above indicates that there is no gender balance in recruitment of Librairie Caritas Ltd. It is advisable for Librairie Caritas Ltd to increase the number of female in order to respect gender balance.

In respect to age of respondents, table 4.2 presents data as follows:

Table 4. 2: Distribution of respondents by age

Categories	**Frequency**	**Percent (%)**
Less than 21 years	1	4.16
21-30 years	6	25
31-40 years	13	54.18
41-50 years	2	8.33
51 years and above	2	8.33
Total	**24**	**100**

Source: Field data, 2023

Table 4.2 shows that out of 24 respondents 1(4.16%) were aged less than 21 years, 6 (25%) were between 21-30 years, 13 (54.18%) were between 31-40 years, 2 (8.33%) were between 41-50 years and 51 years and above were 2 (8.33%). It is seen that the number of between 31-40 years was greater than the number of others. This implies that respondents of this age group mainly contribute in Librairie Caritas Ltd. The persons who are in this range of age, they are already mature and their ideas are objectives, then their answers are well appreciated.

In respect to material status of respondents, table 4.3 presents data as follows:

Table 4. 3: Distribution of respondents by marital status

Categories	**Frequency**	**Percent (%)**
Single	18	75
Married	6	25
Divorced	-	-
Widow (er)	-	-
Total	**24**	**100**

Source: Field data, 2023

Table 4:3 shows that out of 24 respondents 18 (75%) were single, 6 (25%) were married. Then, Librairie Caritas has many single than married employees. This implies that the more

employees in Librairie Caritas Ltd are single to others. This gives the researcher confidence that the information collected are accurate due to the fact the single people do not have more distractions, then they respond with more concentration.

In respect to the level of respondents, table 4.4 presents data as follows:

Table 4. 4: Distribution of respondents by education level

Categories	**Frequency**	**Percent (%)**
Secondary education	6	25
University	18	75
Total	**24**	**100**

Source: Field data, 2023

Table 4.4 shows that out of 24 respondents, 6 (25%) were completed secondary education, 18 (75%) had university level. This situation indicates that all respondents are educated and are able to give the needed information related to inventory management. Duties are assigned according to their capacity, which improves the performance, and this implies Librairie Caritas Ltd to organize some training to its employees every year.

In respect to the occupation of respondents, table 4.5 presents data as follows:

Table 4. 5: Distribution of respondents by occupation

Categories	**Frequency**	**Percent (%)**
Finance	3	12.5
Accounting	4	16.6
Selling	13	54.2
Storekeepers	4	16.7
Total	**24**	**100**

Source: Field data, 2023

Table 4.5: shows that out of 24 respondent, 3 (12.5%) were working in Finance, 4 (16.6%) were in accounting, 13 (54.2%) were sellers and 4 (16.7%) were storekeepers. This implies that the information was good because employees in domain of Finance, Accounting,

storekeepers and selling have more information on inventory management in Librairie Caritas Ltd.

In respect to the working experience of respondents, table 4.6 presents data as follow:

Table 4. 6: Distribution of respondents by experience

Categories	**Frequency**	**Percent (%)**
Less than one years	2	8.33
3-4 years	4	16.67
5-6 years	15	62.5
7 years and above	3	12.5
Total	24	100

Source: Field data, 2023

Table 4.6 shows that out of 24 respondents, 2 (8.33%) for a period less than one year, 4 (16.67%) were in Librairie Caritas Ltd between 3-4 years, 15 (62.5%) were in this firm between 5-6 years, 3 (12.5%) were in Librairie Caritas Ltd 7 years and above. It seen that the big number of respondents their working experience was between 3 and 4 years. This implies that almost all respondents had taken reasonably enough time in work and thus the data the provided was believed to be reliable.

4.2.1.2. Perceptions of respondents on the role of inventory management techniques

In the following tables, the researcher indicated the view respondents on techniques used in Librairie Caritas Ltd branch and its performance in inventory management such as economic order quantity technique, re-order level, inventory turnover and just in time.

4.2.1.2.1. Economic order quantity technique in Librairie Caritas Ltd

Economic order quantity (EOQ) is the ideal quantity of units a company should purchase to meet demand while minimizing inventory costs such as holding costs, shortage costs, and order costs. The EOQ seeks to find stability among preserving an excessive amount of or too little stock. The main objective of this technique is minimizing ordering and carrying cost.

Table 4. 7: Economic order quantity technique at Librairie Caritas Ltd

What do you know about Economic order quantity technique at Librairie Caritas Ltd?	**Responses**											
	SD		D		N		A		SA		TOTAL	
	F	%	F	%	F	%	F	%	F	%	F	%
Ordering goods is done at right time in Librairie Caritas Ltd	-	-	1	4.16	1	4.16	6	25	16	66.68	24	100
Ordering costs of inventory in Librairie Caritas Ltd are normal	-	-	3	12.5	2	8.33	15	62.5	4	16.67	24	100
Costs of keeping inventory in Librairie Caritas Ltd are reasonable	-	-	2	8.33	2	8.33	15	62.5	5	20.84	24	100
Large inventory incurs much	-	-	-	-	2	8.33	11	45.83	11	45.83	24	100

costs in Librairie Caritas Ltd												
Holding costs of inventory in Librairie Caritas Ltd are not high	-	-	1	4.16	3	12.5	15	62.5	5	20.84	24	100
Stock control practice has minimized costs	-	-	1	4.16	3	12.5	14	58.34	6	25	24	100
Librairie Caritas Ltd orders quantity that minimizes total costs	-	-	1	4.16	0	0	4	16.67	19	79.17	24	100

Source: Field data, 2023

In respect to ordering goods is done at right time in Librairie Caritas Ltd, table 4.7, indicates that out of 24 respondents none who was strongly disagree, 1 (4.16%) disagree and 1 (4.16%) neutral, 6 (25%) simply agree while 16 (66.68%) strongly agreed. The greatest perception (66.68%) was in strongly agree. The highest percentage of respondents was in strongly and agrees perception. This transilates that ordering goods is done at right time in Librairie Caritas Ltd.

In respect to the ordering costs of inventory in Librairie Caritas Ltd are normal, table 4.7 shows that out of 24 respondents, 3 (12.5%) were disagree, 2 (8.33%) were neutral, 15 (62.5%) agree, 4 (16.67%) were strongly agreed. Then the greatest perception (62.5%) was in agreed followed by 4 (16.67%) in strongly agree. The highest percentage of respondents

was in agree and strongly agree this transilate that ordering costs of inventory in Librairie Caritas Ltd are normal.

In respect to the costs of keeping inventory in Librairie Caritas Ltd are reasonable, table 4.7 shows that out of 24 respondents, 2 (8.33%) were disagree, 2 (8.33%) were neutral, 15 (62.5%) agree, 5 (20.84%) were strongly agreed. The greatest perception was in 62.5% in agreed followed by 20.84% in strongly agree. This translate that the costs of keeping inventory in Librairie Caritas Ltd are reasonable.

In respect to large inventory incurs much cost in Librairie Caritas Ltd, table 4.7 shows that out of 24 respondents, 2 (8.33%) were neutral, 11 (45.83%) agree, 11 (45.83%) were strongly agreed. The highest perceptions were in agreeing and strongly agree position. This transilate that large inventory incurs much cost in Librairie Caritas Ltd.

In respect to holding costs of inventory in Librairie Caritas Ltd are not high, table 4.7 shows that out of 24 respondents, 1 (4.16%) was disagree, 3 (12.5%) were neutral, 15 (62.5%) agreed, 5 (20.84%) were strongly agreed. Big number of perception was 62.5% in agree followed by 20.84% in strongly agree. This implies that holding costs of inventory in Librairie Caritas Ltd are not high, because the majority of respondents was agreed that statement.

In respect for stock control practice has minimized costs, table 4.7 shows that out of 24 respondents, 1 (4.16%) was disagree, 3 (12.5%) were neutral, 14 (58.34%) agreed, 6 (25%) were strongly agreed. Big number of perception was 58.34% followed by 25% in strongly agree. This implies that stock control practice has minimized costs of Librairie Caritas Ltd.

In respect with Librairie Caritas Ltd order Quantity that minimizes total costs, table 4.7 shows that out of 24 respondents, 1 (4.16%) were disagree, there no neutral respondent, 4 (16,67%) agree, 19 (79.17%) were strongly agreed. The higher perception were strongly agree position. As how the result indicate the percent, is true that order quantity in Librairie Caritas Ltd minimizes total cost. Referring to the whole result from table 4.7 it clear the big number of respondents was agreed and strongly agreed. This implies that there is existence of the fact.

4.2.1.2.2. Re-order level at Librairie Caritas

A reorder level is the point at which businesses order new stock from the supplier. Thus, it is typically determined based on factors such as lead time, demand variability, and desired service level to ensure that stock is available when needed. A reorder level is the point at which businesses order new stock from the supplier. In most cases, each business will have a specific reorder point, which is met when the number of units in storage falls to a predetermined level. Once the number of units reaches this level, stock should be replenished as soon as possible.

Table 4. 8: Re-order level at Librairie Caritas Ltd

At which level Re-order level is implemented in Librairie Caritas Ltd?	**Responses**											
	SD		D		N		A		SA		TOTAL	
	F	%	F	%	F	%	F	%	F	%	F	%
New order are placed to replenish the inventory	-	-	-	-	-	-	19	79.16	5	20.84	24	100
Deliveries are always received after the order has been placed	-	-	5	20.84	1	4.16	13	54.16	5	20.84	24	100
There is no uncertainty about the usage rate and lead time	5	20.84	1	4.16	1	4.16	5	20.84	12	50	24	100

Safety stock is always kept in Librairie Caritas's inventory	-	-	-	-	1	4.16	4	16.67	19	79.17	24	100
Lead time supplier in Librairie Caritas Ltd is mostly short	-	-	-	-	1	4.16	8	33.34	15	62.5	24	100
There is Re-order level control in inventory of Librairie Caritas Ltd	-	-	1	4.16	1	4.16	17	70.84	5	20.84	24	100
The software used in stock management (Caritas shopper) has more importance in inventory management							8	33.33	16	66.67	24	100

Source: Field data, 2023

In respect to new orders are placed to replenish the inventory, table 4.8 shows that out of 24 respondents, 19 (79.17%) were agreed and the remaining 5 (20.84%) were strongly agreed. The majority 79.17% were in position of agree. This transilate that new orders are placed to replenish the inventory of Librairie Caritas Ltd.

In respect to deliveries are always received after the order has been placed, table 4.8 shows that out of 24 respondents, 5 (20.84%) were disagreed, 1 (4.16%) were neutral, 13 (54.16%) were agreed and 5 (20.84%) were strongly agreed. The highest perception 54.16% was in agreed. This transilate that deliveries are always received after the order has been placed.

In respect to there is no uncertainty about the usage rate and lead time, table 4.8 shows that out of 24 respondents, 5 (20.84%) were strongly disagreed, 1 (4.16%) disagreed, 1 (4.16%) neutral, 5 (20.84%) were agreed and 12 (50%) were strongly agree. This transilate that in Librairie Caritas Ltd there is no uncertainty about the usage rate and lead time.

In respect to Safety stock is always kept in Librairie Caritas's inventory, table 4.8 shows that out of 24 respondents, 1 (4.16%) was neutral, 4 (16.67%) were agreed, 19 (79.17%) were strongly agreed. Large number of perception 79.17% was in strongly agree, this thansilate that safety stock is always kept in Librairie Caritas Ltd's inventory.

In respect to Lead time supplier in Librairie Caritas Ltd is mostly short, table 4.8 shows that out of 24 respondents, 1 (4.16%) were neutral, 8 (33.34%) were agreed, 15(62.5%) were strongly agreed. Big number of perception 15 (62.5%) was in strongly agree followed by agree. This transilate that lead time supplier in Librairie Caritas Ltd is mostly short.

In respect to there is re-order level control in inventory of Librairie Caritas Ltd, table 4.8 shows that out of 24 respondents, 1 (4.16%) was disagreed, 1 (4.16%) was not shure, 17 (70.84%) were agreed while 5 (20.84%) were strongly agreed. Highest number of perception 17 (70.84%) was in agree followed by 5 (20.84%) in strongly agree. This interpret that there is re-order level control in inventory of Librairie Caritas Ltd.

In respect to the software used in stock management (Caritas shopper) has more importance in inventory management, table 4.8 shows that out of 24 respondents, 8 (33.33%) were agreed, 16 (66.67%) were strongly agreed. Highest number of perception 16 (66.67%) was in strongly agree followed by 8 (33.33%) in agree. This interpret that the software used in management of inventory in Librairie Caritas Ltd has greet importance. Result from whole table 4.8, it clear that the number of respondents who agreed and strongly agreed was higher than who disagreed, and the mean and standard deviation are at the level of very high. This level indicates that these are strong evidence of existence of the fact.

4.2.1.2.3. Inventory turnover technique

Inventory turnover is a key part of inventory management. Also called stock turnover, this is a metric that measures how much of a company's inventory is sold, replaced, or used and how often. Consumer demand is a key indicator that can determine whether inventory levels will turn over at a quick pace or if they won't move at all. Higher demand typically means that a company's products and services will move from the shelves into consumers' hands quickly while weak demand often leads to a slow turnover rate. Inventory Ratio = COGS ÷ Average Value of Inventory.

Table 4. 9: Inventory turnover technique

How Inventory turnover technique is managed within Librairie Caritas Ltd?	**Responses**											
	SD		D		N		A		SA		TOTAL	
	F	%	F	%	F	%	F	%	F	%	F	%
Inventory of Librairie Caritas is quickly sold	-	-	-	-	1	4.16	4	16.67	20	79.17	24	100
Replacing finished items is highly done	-	-	1	4.16	2	8.33	5	20.83	16	66.68	24	100
Consummer demand in Librairie Caritas is on high level	1	4.16	1	4.16	-	-	8	33.34	14	58.34	24	100

Source: Field data, 2023

In respect to inventory of Librairie Caritas is quickly sold, table 4.9 shows that out of 24 respondents, 1 (4.16%) was neutral, 4 (16.67%) were agreed and 20 (79.17%) were strongly

agreed. The high perception is 20 (79.17%) in strongly agree. This translates that inventory of Librairie Caritas is quickly sold.

In respect to replacing finished items is highly done, table 4.9 shows that out of 24 respondents, 1 (4.16%) was disagreed, 1 (4.16%) were neutral, 5 (20.83%) were agreed and 16 (66.68%) were strongly agreed. The high perception is 16 (66.68%) in strongly agree. This translates that replacing finished items is highly done in Librairie Caritas Ltd.

In respect to consumer demand in Librairie Caritas is on high level, table 4.9 shows that out of 24 respondents, 1 (4.16%) was strongly disagree and neutral, 8 (33.34%) were agreed and (47.38%) were in strongly agreed. The high perception is 9 (47.38%) in agree with 14 (58.34%) in strongly agree. This translates that consumer demand in Librairie Caritas is on high level.

In general, table 4.9 shows that the number of respondents who agreed and strongly agree is higher than who disagree. This level indicates that these are strong evidence of existence of use of inventory turnover technique in Librairie Caritas Ltd.

4.2.2. Inventory valuation methods within Librairie Caritas Ltd

For assessing the inventory valuation method, the researcher used fiches of stocks as physical documents in research. According to the kind of business, many items are sold according to the wish of customers. For books, there are many kinds of books, then the customer buys the one which is needed; even those which have the same title and author, they may have different editions, it is the reason why, the customer order which is wanted.

It is as the same situation as in arts objects. However, for stationery, there are some items which must be sold according to the FIFO method because, they have the same characteristics. It will prevent the old items to be damaged by humidity or others intemperate. The researcher identified the gap since September 2022 to December 2023 in evaluation of stock for notebooks of 200 pages which are highly bought and are ordered by Librairie Caritas Ltd in Kenya.

Table 4. 10: Librairie Caritas Ltd inventory valuation method of notebooks for 200 pages squared since September 2022-December 2023

Date	Purchases			Issued			Closing balance		
	Qty	U.P./ Rwfr	T.P/ Rwfr	Qty	U.P./ Rwfr	T.P /Rwfr	Qty	U.P./ Rwfr	T.P/ Rwfr
28/09/2022							36692	341	12511972
				144	341	49104	36548	341	12462868
				144	341	49104	36404	341	12413764
30/09/2022				288	341	98208	36116	341	12315556
01/10/2022				288	341	98208	35828	341	12217348
				144	341	49104	35684	341	12168244
03/10/2022				288	341	98208	35396	341	12070036
04/10/2022				144	341	49104	35252	341	12020932
05/10/2022				288	341	98208	34964	341	11922724
06/10/2022				144	341	49104	34820	341	11873620
10/10/2022				144	341	49104	34676	341	11824516
14/10/2022				144	341	49104	34532	341	11775412
24/10/2022				144	341	49104	34388	341	11726308
14/11/2022				288	341	98208	34100	341	11628100
23/12/2022				144	341	49104	33956	341	11578996
29/12/2022	42624	517	22036608	42624	517	22036608	33956	341	11578996
17/01/2023				144	341	49104	33651	341	11462715
17/04/2023				144	341	49104	33507	341	11425887
17/07/2023				144	341	49104	33363	341	11376783
04/08/2023				144	341	49104	33219	341	11327679
09/08/2023				144	341	49104	33075	341	11278575
12/08/2023				144	341	49104	32931	341	11229471

17/08/2023				144	341	49104	32787	341	11180367
18/08/2023				144	341	49104	32643	341	11131263
22/08/2023				144	341	49104	32499	341	11082159
23/08/2023				144	341	49104	32355	341	11033055
24/08/2023				576	341	196416	31779	341	10836639
28/08/2023				288	341	98208	31491	341	10738431
30/08/2023				288	341	98208	31203	341	10640223
01/09/2023				288 288	341 341	98208 98208	30915 30627	341 341	10542015 10443807
02/09/2023				288	341	98208	30339	341	10345599
04/09/2023				288	341	98208	30051	341	10247391
05/09/2023				720	341	245520	29331	341	10001871
08/09/2023				288	341	98208	29043	341	9903663
11/09/2023				576 576	341 341	196416 196416	28467 27891	341 341	9707247 9510831
14/09/2023				576	341	196496	27315	341	9314415
15/09/2023				144 144	341 341	49104 49104	27171 27027	341 341	9265311 9216207
16/09/2023				432	341	147312	26595	341	9068895
18/09/2023				576 720	341 341	196416 245520	26019 25299	341 341	8872479 8626959
20/09/2023				288 720	341 341	98208 245520	25011 24291	341 341	8528751 8283231
21/09/2023				288	341	98208	24003	341	8185023
23/09/2023				144	341	49104	23859	341	8135919

25/09/2023	31536	500	15768000	31428	500	15714000	23859 108	341 500	8135919 54000
26/09/2023				144	341	49104	23715 108	341 500	8086815 54000
27/09/2023				144	341	49104	23571 108	341 500	8037711 54000
29/09/2023				144	341	49104	23427 108	341 500	7988607 54000
05/10/2023				144	341	49104	23283 108	341 500	7939503 54000
10/11/2023	43200	515.96	22289472				23283 108 43200	341 500 515.96	7939503 54000 22289472
Closing balance									**30282975**

Source: Fiche of inventory September 2022 – December 2023

In respect to inventory valuation method of notebooks for 200 pages squared since September 2022-November 2023, table 4.10 shows that, the storekeeper didn't use Lifo, Fifo method which is recommended for these kind of goods. Sometimes the items which comes last in store, were the first to be out (LIFO). For example on December 29, 2022; the store horded 33,956 items of notebooks for 200 pages squared, when the company received the order of 42,624 items of notebooks for 200 pages squared, instead of sell the first items, they sell the last. Yet, the older items were being damaged within time in store. It is the same problem, on September 25, 2023; the store of Librairie Caritas Ltd hold 23859 items at 341

each and remember these items are in this store since many years ago. At this date, the company received 31536 items at Rwfr 500 each; the company received order of 31428 items, instead of selling the first items, they sold the new one, then the old items were still been damaged in stock. This can lead the company to have loss from using inventory valuation method wrongly.

4.3. Analysis of financial performance in Librairie Caritas Ltd

The purpose of this analysis was to show the role of inventory management on the financial performance of Librairie Caritas Ltd. With this analysis, the researcher analysed and interpreted the data that were corrected from the field. It therefore, includes the presentation and discussion of data, which is with the conceptual part of this analysis. The response were collected to be tabulated and shown in form of statistical tables, frequency distributions and percentages. In this study, the researchers analysed systematically the data collected so as to draw partial conclusion.

After analysing and interpretation of financial performance in Librairie Caritas Ltd, the objective was to do the verification of second hypothesis, where the second question was: Inventory management contributes to the financial performance of Librairie Caritas Ltd?

4.3.1. Librairie Caritas Ltd, Statement of Income and other comprehensive income for the years ended December 31, 2021, 2022 and 2023

Table 4. 11: Statement of Income and other comprehensive income

	2023 **Rwf**	**2022** **Rwf**	**2021** **Rwf**
Revenue	459,195,255	398,659,234	471,761,464
Cost of sales	(303,369,256)	(283,478,132)	(337,314,876)
Gross profit	155,825,999	115,181,102	134,446,588
Operating expenses	(79,248,139)	(51,340,356)	(50,293,613)
Administrative expenses	(4,336,555)	(3,135,550)	(2,895,485)
Employment costs	(39,003,041)	(34,275,112)	(33,241,692)

Profit before income tax	33,238,264	26,430,084	48,015,798
Income tax charge	(12,706,536)	(8,167,456)	(14,731,757)
Profit after income tax	20,531,728	18,262,628	33,284,041

Source: Financial statement of Librairie Caritas Ltd from 2021 – 2023

4.3.2. Librairie Caritas Ltd, Statement of Financial Position as at 31st December 2021, 2022 and 2023

Table 4. 12: Statement of Financial Position

Assets	**2023** **Rwf**	**2022** **Rwf**	**2021** **Rwf**
Non-Current Assets			
Property plant and equipment	12,492,966	11,419,009	15,684,244
Total non-Current Assets	12,492,966	11,419,009	15,684,244
Current Assets			
Inventories	236,636,700	198,275,007	122,429,963
Trade and other receivables	65,308,966	59,275,846	136,208,530
Cash at bank and in hand	97,464,712	103,960,846	78,944,655
Total Current Assets	399,410,378	361,511,699	337,583,148
Total Assets	**411,903,344**	**372,930,708**	**353,267,392**
Equity and Liabilities			
Share capital	10,000,000	10,000,000	10,000,000
Retained earnings	284,967,608	272,636,380	246,091,580
Equity attributable to owners	294,967,608	282,636,380	256,091,580
Current Liabilities			
Trade and other payables	116,935,736	90,294,328	97,175,812
Total Liabilities	116,935,736	**90,294,328**	**97,175,812**
Total Equity and Liabilities	**411,903,344**	**372,930,708**	**353,267,392**

Source: Financial statement of Librairie Caritas Ltd from 2021 – 2023

4.3.3. Asses Librairie Caritas Ltd profitability through ratio analysis

This study target to determine the profitability ratio in order to know the degree of performance in term of profitability during the period of 2021-2023. The main profitability ratio used by Librairie Caritas Ltd is Gross profit margin, net profit margin, return on assets and return on equity.

4.3.3.1. Gross Profit Margin

Table 4. 13: Analysis of Gross Profit Margin

Years	**2021**	**2022**	**2023**
Gross profit	134,446,588	115,181,102	155,825,999
Sales	471,761,464	398,659,234	459,195,255
Gross Profit Margin= $\frac{\text{Gross Profit}}{\text{Sales}}$*100	28.4	28.8	33.9

Source: Financial statement of Librairie Caritas Ltd from 2021 – 2023

From table 4.13 above, the Gross profit in 2021 to 2022 decreased by 19,265,486 but comparing the decrease in sales by 73,102,230 the management of Librairie Caritas Ltd tried to maintain the Gross profit margin, because it was 28.4% in 2021 and it increased to 28.8% in 2022, it continued to be increased to 33.9% in 2022 because of increase in gross profit from 115,181,102 in 2022 to 155, 825,999 in 2023. The situation above indicated that there is an increase in gross profit margin.

4.3.3.2. Net profit margin

Table 4. 14: Analysis of net profit margin

Years	**2021**	**2022**	**2023**
Net income	33,284,041	18,262,628	20,531,728
Sales	471,761,464	398,659,234	459,195,255
Net Profit Margin= $\frac{\text{Net income}}{\text{Sales}}$*100	7.05	4.5	4.4

Source: Financial statement of Librairie Caritas Ltd from 2021 – 2023

Table 4.14 above, indicated that in 2021, net income was 33,284,041 and net profit margin is 7.05, in 2022 there were a decrease in net income to 18,262,628 which leads to decrease in net profit margin to 4.5. In 2023, there were an increase in net income to 20,531,728 because it is not a big increase, the net profit margin was almost the same because it stands at 4.47%. This situation was caused by inappropriate inventory management in 2023 when the storekeeper was using the methods of evaluation of stocks.

4.3.3.3. Return on Assets (ROA)

Table 4. 15: Analysis of return on Assets (ROA)

Years	**2021**	**2022**	**2023**
Net income	33,284,041	18,262,628	20,531,728
Total Assets	353,267,392	372,930,708	411,903,344
Return on Assets= $\frac{\text{Net income}}{\text{Total Assets}}$*100	9.4	4.8	4.9

Source: Financial statement of Librairie Caritas Ltd from 2021 – 2023

Table 4.15 above shows that in 2021 return on asset was increased to 9.4% but in 2022 return on assets decreased to 4.8% and in 2023 return on assets increased to 4.9%. Result above

show that 2023 return on assets increased. This was increased is due to many costs were spent in terms of marketing.

4.3.3.4. Return on Equity (ROE)

Table 4. 16: Analysis of return on Equity (ROE)

Years	**2021**	**2022**	**2023**
Net income	33,284,041	18,262,628	20,531,728
Total Equity	256,091,580	282,636,380	294,967,608
Return on Equity= $\frac{\text{Net income}}{\text{Total Equity}}$*100	12.9	6.4	6.9

Source: Financial statement of Librairie Caritas Ltd from 2021 – 2023

From the table 4.16 above, shows that in 2021 net income increased to 33,284,041 Rwf which results to the increase in return on equity of 12.9%, but in 2022 net income decreased to 18,262,628 Rwf which results a decrease in return on equity to 8.4%, in 2023 the net income were increased to 20,531,728 Rwf which result an increase in return on equity to 6.96 % . The ROE ratio shows how many Rwanda Francs of net income have been earned for each Rwanda Francs invested. This ratio is useful tool to measure the profitability from the owner's view. Like return on Equity (ROE) ratio, a higher ROE indicates high profitability and strong financial position of the institution and can cover potential investors into actual common stockholders. But for Librairie Caritas Ltd have too careful because the ROE was decreasing in some years which is not a good sign for the Librairie Caritas Ltd.

Conclusion

The topic of this dissertation was entitled “IMPACT OF INVENTORY MANAGEMENT TO THE FINANCIAL PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN RWANDA, CASE STUDY: LIBRAIRIE CARITAS LTD, PERIOD: (2021-2023)”

At the beginning, the questions were assumed that:

1. Is inventory management implemented in Librairie Caritas Ltd effectively?

2. Does inventory management contribute to the financial performance of Librairie Caritas Ltd?

The hypothesis went like:

1. Inventory management is implemented in Librairie Caritas Ltd effectively.
2. Inventory management contributes to the financial performance of Librairie Caritas Ltd.

After presenting the profile of Librairie Caritas Ltd, the researchers has been ended to the following results:

Librairie Caritas has only one type of inventory purchased for selling. This inventory is composed by stationery, books and arts objects. Concerning the first objective, regarding for investigating the effectiveness of inventory management techniques used by Librairie Caritas Ltd, the study revealed that: Out of 24 respondents, majority was agreed and strongly agreed that Librairie Caritas Ltd use Economic Order Quantity as inventory management technique. As how the result indicate the percent, is true that there is existence of the usage of Economic Order Quantity in Librairie Caritas Ltd.

The research also shows that out of 24 respondents, majority was agreed and strongly agreed that Librairie Caritas Ltd use Re-order level as inventory management. As how the result indicate the percent and mean, is true that there is existence of the usage of Re-order level in Librairie Caritas Ltd. It is the same situation regarding inventory turnover technique.

By using physical documents in research, the research identified that by using the method of stock valuation, for items of 200 pages squared, between December 2022 and November 2023, the storekeeper didn’t use FIFO as good method of issuing the first items in stock

which is caused some items to be damaged by time. The consequences are identified in financial statements of Librairie Caritas where there is a decrease in revenue of Rwfr 73,102,230 in 2022. The same error of using LIFO method instead of FIFO were repeated in 2023, this causes also a decrease in revenue of Rwfr 12,566,209 considering the revenue of 2021.

Therefore, based on the above findings the first hypothesis which stated that **" Inventory management is implemented in Librairie Caritas Ltd effectively"** was not confirmed. It is the reason why the first hypothesis is rejected.

Even if there are inventory management techniques which have been well used, the inventory valuation methods did not well used because there is a same item which has been sold using LIFO method instead of using FIFO method; then the inventory management of Librairie Caritas Ltd in 2022 and 2023 was not perfectly.

About contribution of inventory management to the financial performance of Librairie Caritas Ltd, From table 4.16, the Gross profit in 2021 to 2022 decreased by 19,265,486. But management tried to maintain Gross profit margin, because it was 28.4% in 2021 and it increased to 28.8% in 2022, it continued to be increased to 33.9% in 2022 because of increase in gross profit from 115,181,102 in 2022 to 155, 825,999 in 2023. The situation above indicated that there is an increase in gross profit margin.

Net income was 33,284,041 in 2021 and net profit margin is 7.05, in 2022 there were a decrease in net income to 18,262,628 which leads to decrease in net profit margin to 4.5. In 2023, there were an increase in net income to 20,531,728 because it is not a big increase, the net profit margin was almost the same because it stands at 4.47%. This situation was caused by inappropriate inventory management in 2023 when the storekeeper was using badly the methods of evaluation of stocks.

Return on asset, in 2021 was 9.4% but in 2022 return on assets decreased to 4.8% and in 2023 return on assets increased a bit to 4.9%. Result above show that 2023 return on assets increased a bit. This was increased is due to many costs were spent in terms of marketing.

In 2021 net income was 33,284,041 Rwf which results to the increase in return on equity of 12.9%, but in 2022 net income decreased to 18,262,628 Rwf which results a decrease in return on equity to 8.4%, in 2023 the net income were increased a bit to 20,531,728 Rwf which result an increase in return on equity to 6.96 % . The ROE ratio shows how many Rwanda Francs of net income have been earned for each Rwanda Francs invested. This ratio is useful tool to measure the profitability from the owner's view. Like return on Equity (ROE) ratio, a higher ROE indicates high profitability and strong financial position of the institution and can cover potential investors into actual common stockholders. But for Librairie Caritas Ltd have too careful because the ROE was decreasing in some years which is not a good sign for the Librairie Caritas Ltd.

Based on the information above, the second hypothesis is tested and verified. Therefore, based on the above findings the second hypothesis which stated that **"Inventory management contributes to the financial performance of Librairie Caritas Ltd"** was verified and confirmed.

In 2021, inventory management was perfect, then Librairie Caritas makes appreciated financial performance; it is the reason why in this year inventory management has contributed positively in financial performance of Librairie Caritas Ltd while in 2022 and 2023, because of using wrongly stock valuation method, where for the same item, which can be damaged easily, the storekeeper used LIFO method instead of FIFO method. It is the reason why in these two years, inventory management has contributed negatively to the financial performance of Librairie Caritas Ltd.

Recommendations and Suggestions

Recommendations

The study cannot end without providing suggestions to Librairie Caritas Ltd for effective inventory management and to enhance the financial performance.

- Managers of Librairie Caritas Ltd should every month prepare and utilize financial information in order to take the right decisions in their daily management
- They should also conduct the regularly physical control of inventory as possible
- It is also mandatory to use FIFO as good method in stock valuation for the same items, which can be damaged easily
- Using QuickBooks instead of Sage 100 as accounting software which can be very fruitful in management of stocks
- Conduct regularly internal audit
- It is also necessary to hire external auditors for making review in order to have financial statements, which are certified
- To increase the branches so as to better serve the customers
- To do marketing and advertisements in order to increase the sales

The researchers suggested the following areas as necessary for future researches in order to fully exhaust the area related to the inventory management and the performance of SMEs. Then, future researchers should conduct the researches on the following topics:

1. Role of inventory to the revenue performance of SMEs.
2. The relationship between advertisement and the profitability of the SMEs.

Suggestions

Amelioration of internal audit, some suggestion might be essential for the amelioration such as:

To Librairie Caritas Ltd

Based on the finding the researcher would recommend that the Librairie Caritas Ltd could establish the followings issues that will help to minimize risks:

1. Increase the numbers of trained employees in audit department

2. To strengthen the internal control.

3. To provide the independence to the internal auditors by allowing them to reports directly to the boards of directors.

Suggestion to further researchers:

1. Contribution of internal audit on errors reduction in SMEs.

2. The contribution of international audits standards in information reporting in SMEs.

REFERENCES

I.Text books

1. David Luther (2022), Inventory Management KPIs and Metrics; in https://www.netsuite.com/portal/resource/articles/inventory management/inventory-management-kpis-metrics.shtml
2. Deveshwar, A., & Dhawal, M. (2013). Inventory management delivering profits through stock management.World Trade Centre, Dubai: Ram University of Science and Technology
3. Dr. Penina Chepkorir Langat (2018) relationship between inventory management literacy and solvency position of women micro entrepreneurs in nakuru town, kenya Department of Accounting, Finance and Economics, University of Kabianga, Kenya (2018)
4. Drurry, C. (2004), Management and Cost accounting. London: Prentice Hall
5. Faraz Khan, Dr. Danish Ahmed Siddiqui (2019), the impact of inventory management on firms' performance of departmental stores operating in Karachi, Research Scholar, Associate Professor Karachi University Business School, University of Karachi, Pakistan
6. Garcia-Teruel, P. J., & Martínez-Solano, P. (2012). Effects of working capital management on SME profitability. International Journal of Managerial Finance, 3(2), 164-177
7. Grawitz, M (1994) Introduction to research methodology. Macc. Hill 2nd edition
8. Gregory D.Brown (2024) Dept.of finance, Economics&Accounting, college of Business and industry.
9. Godambe, V.P. 1982, Estimation in survey sampling: robustness and optimality, Journal of the American Statistical Association 77:393-403.
10. Jackson, R. H., & Wood, A. (2013). The performance of insolvency prediction and credit risk models in the UK: A comparative study. The British Accounting Review, 45(3), 183-202
11. Jean, H., & Murray, J. (2017). Solvency in business. Retrived from https://www.thebalance.com/solvencyin-business-398474

12. Khidmat, W., & Rehman, M. (2014). Impact of liquidity and solvency on profitability: Chemical sector of Pakistan. Economic Management Innovation Journal, 6(3)
13. Kothari, C.R (1992) An introduction to operational Research. New Delhi: Vikas publishing Koumanakos, D.P (2008).The effect of inventory management on firm performance International Journal of productivity and performance Management, Vol 57 (pp 355-369) Emerald Group Publication
14. Lyson, K.and Farrington, B. (2015) Purchasing and Supply chain Management11thedition Pearson Education limited company
15. Lysons, K and Gillingham, M. (2003). Purchasing and supply chain management. London:Prentice Hall
16. Manuel des procedures de gestion administrative, financiere, comptable et de controle interne au sein de la librairie caritas ltd.
17. Maurya, A. K., Vohra, S. F., & Gupta, K. N. (2008). Provision of Improved Inventory lone-up (Hookup) Schemes in 700 MWe PHWR Project for Severe Accident Management based on Operational Experience of earlier Units. In Proc. Int. Conf. on Topical issues in Nuclear Installation Safety, paper no. IAEA-CN-158/33
18. McNamara, C. (1999) General Guidelines for Conducting Interviews. Sage, Minnesota
19. Pandey, M.I. (2005). Financial Management (9thed.). New Delhi: Vikas Publication House Pvt. Ltd
20. Paul D. Kimmel, Jerry K. Weygandt, Donald E. Kieso & Barbara Trenholm (2009), Financial Accounting: Tools for business decision-Making; fourth Canadian Edition, John Wiley & Sons Canada, Ltd
21. Priscilla Navarro (2023), Department of Management and Engineering Linköping University, SE-581 83 Linköping, Sweden.
22. Smith, W. (2013). Integrating your cash and shortterm debt management strategy. Controller's report
23. Stevenson, B. (2010). Operations management (10th ed.).New York: McGrau Hill Publishing.

24. Tim Stobierski (2020), 13 financial performance measures managers should monitor, Harvard Business School Online; in https://online.hbs.edu/blog/post/financial-performance-measures

II. REPORTS

Librairie Caritas Ltd annually reports 2021

Librairie Caritas Ltd annually reports 2022

Librairie Caritas Ltd reports 2023

III. ELECTRONIC SOURCES

1.https://www.manageengine.com/products/service-desk/it-asset-management/it-inventory-management.html

2. https://librairiecaritas.com/

3.https://www.memoireonline.com/11/11/4963/m_The-role-of-SMEs-in-rwanda-from-1995-to-201015.html

APPENDICES

INTRODUCTORY LETTER

Dear respondent,

This research project is prepared by: **BAMPORINEZA Emmanuel** for the award of Bachelor`s degree in the school of Economics and Business studies. The research is designed to find out "impact of inventory management to the financial performance of small and medium enterprises, case study of Librairie Caritas Ltd 2021-2023." You are please requested to answer the following questions in order to help reach the result need.

We ensure you that the information you provide will be treated confidentially and used solely for academic purposes.

Your co-operation is highly appreciated.

Thank You for your cooperation.

Yours faithfully

BAMPORINEZA Emmanuel

Finalist Student at ULK

QUESTIONNAIRE

Research questions for storekeepers, cashiers, accountant, Director of Finance in Librairie Caritas Ltd and some supplier/creditors.

I.Identification of respondent

Instructions: Please tick in the boxes or write in the space provided and give your own views where necessary.

What is the group of age?

a) 20-35 ☐
b) 36-45 ☐
c) 46-55 ☐
d) 56-65 ☐
e) Above 61 ☐

Mention your sex as it is shown below:

a) Male ☐
b) female ☐

Education level

a) Have not been at school ☐
b) Primary ☐
c) Secondary ☐
d) University level ☐
e) Master level ☐

Mention your marital status as it is shown below:

a) Married ☐
b) Single ☐
c) Widow/err ☐
☐

d) Separated

What is your work activity?

a) Storekeeper ☐

b) Seller ☐

c) Accountant ☐

d) Daf ☐

e) Other ☐

II. General questions

Instruction: Complete the following questionnaire on a scale of 5= strongly agree to 1= strongly Disagree

	Statement	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1	**What do you know about Economic order quantity technique at Librairie Caritas Ltd?**	**SD**	**D**	**N**	**A**	**SA**
	Ordering goods is done at right time in Librairie Caritas Ltd					
	Ordering costs of inventory in Librairie Caritas Ltd are normal					
	Costs of keeping inventory in Librairie Caritas Ltd are reasonable					
	Large inventory incurs much costs in Librairie Caritas Ltd					
	Holding costs of inventory in Librairie Caritas Ltd are not high					
	Stock control practice has minimized costs					
	Librairie Caritas Ltd orders quantity that minimizes total costs					
2	**At which level Re-order level is implemented in Librairie Caritas Ltd?**					
	New order are placed to replenish the inventory					

	Deliveries are always received after the order has been placed					
	There is no uncertainty about the usage rate and lead time					
	Safety stock is always kept in Librairie Caritas's inventory					
	Lead time supplier –Librairie Caritas Ltd is mostly short					
	There is Re-order level control in inventory of Librairie Caritas Ltd					
	The software used in stock management (Caritas shopper) has more importance in inventory management					
3	**How Inventory turnover technique is managed within Librairie Caritas Ltd?**					
	Inventory of Librairie Caritas is quickly sold					
	Replacing finished items is highly done					
	Consummer demand in Librairie Caritas is on high level					