ST. MARY'S UNIVERSITY

SCHOOL OF GRAGUATE STUDIES

PROFITABILITY ANALYSIS IN PRODUCTION LINES THE CASE OF ETHIOPIAN PHARMACUTICALS MANUFACTURING SHARE COMPANY

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ADDIS ABEBA, ETHIOPIA

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ABBREVIATIONS AND ACCRONYUMS

EPHARM	Ethiopian Pharmaceuticals Manufacturing Sh. Co.
PFSA	Pharmaceuticals Fund Supply Agency
IV	Infusions Volume
ORS	Oral Powder Sachet
EMS	Environmental Management System
IFRS	International Financial Report Standard
FMHACA	Food Medicines and Health Care Administration
APF	Addis Pharmaceuticals Factory
ROS	Return on Sales
ROI	Return on Investment
VAT	Value Add Tax

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A B S T R A C T

The study was commenced by pointing out and highlighting the major problems in the profitability of production lines in EPHARM. Data was collected through observation, interviewing and questionnaires purposely selected experienced key senior and middle level management staffs, through reviewing various document and five years audited reports. The collected data had been organized, discussed to enable and describe the analyses, underlying of each designed questions and questionnaire responses, reviewed documents, and observations. Descriptive research was applied in this research. From total of 84 targeted populations, 6 board members, 12 top management, 52 middle level management, 12 accountants and 2 auditors were targeted population. Both qualitative and quantitative and primary and secondary data were collected using questionnaire, focus group discussion and documentation of reviews. The analysis showed that there was a big return gap between high profitability production lines and low profitability production lines.

The major problems that hinder the profitability of production lines were out-dated production machines, shortage of raw materials, machines spare parts and foreign currency. The company has been growing at increasing rate in finance, human capital, and large market shareholding as well. EPHARM had been long years of manufacturing pharmaceuticals products in the industry, experienced workers, huge expansion areas and excess market demand. It's recommended that the shareholders and management should coordinate the Company resources, replace existing old machines and replace non profitable products by new to further exploit ample local market demands and to continue competitively in the market.

CHAPTER ONE

1. INTRODUCTION

This chapter provides the assessment of profitability analysis production line in the case of Ethiopian pharmaceuticals manufacturing sh. Co. It also assesses factors affecting profitability, measurement of profitability on return on sales and return on investments. It further describes the background to the problem, states the problem, research questions and objectives, the significance, scope and limitations and organization of the study.

1.1 Background of the Study

Ethiopian Pharmaceuticals Manufacturing Sh. Co. (EPHARM) is a pioneer in the pharmaceutical manufacturing industry of Ethiopia. It's headquarter is located in Nifas Silk Laftosub-city, Addis Ababa. EPHARM has been producing high quality and price competitive drugs that have addressed the critical health problems of the Ethiopian people for more than fifty years.

The company has nine production lines, currently upgrading ten production line fully equipped laboratories, and utilities capable of producing different dosage forms in capsule, tablet, vials, sachets (oral powders), liquids (syrup), ampoules, large volume infusions, and ointments. EPHARM supplies the largest proportion of its pharmaceutical products primarily to the Federal Republic of Ethiopian Pharmaceuticals Fund and Supply Agency (PFSA). It is through this public enterprise that EPHARM's products reach the community at every corner of the country, especially the poor and the disadvantaged groups of the society living in the remote rural villages. The core team consists of highly qualified professionals with excellent academic accreditations who are highly experienced in various aspects of the pharmaceutical industry.

Medtech Ethiopia PLC acquired EPHARM Sh.Co.as at Sep 25, 2014 G.C. Medtech Ethiopia, before acquisition, was a loyal customer of EPHARM for two years. It was a vertical combination made between EPHARM and its parent company. The major share (91%) was held by the parent company and the other non-control interest (9%) by five shareholders at different share percentage. (Ethiopian Pharmaceutical Sh.Co. Magazine 2016. Annual plan of EPHARM 2018)

One of the influencing factors of profitability in manufacturing industry is costs. Costs impact profit directly and for this reason, a good understanding of costs structures can help to increase profitability. Company Profit affected by different variables. Most of them market power, innovation, efficient cost, product diversifications, human performance, price of product, nature of monopoly and market share will be the main factors. To manipulate and get competitive advantage from those variables business organization needs proactive managers. Business organizations have two types of manager. They are Proactive manager and reactive manager. The proactive manager will plan to innovate, penetrate market by taking high share of the industry. The reactive managers are plan to only survival and continue with usual way to keep the past performance. (Strategic business planning, Kogan page limited, business knowledge transferltd, 1993, 2002)

Profit analysis has come a long way in the past few decades, and today traders of every level make the most of this very useful tool. So, this research is for pharmaceuticals manufacturing and similar industries that have production lines. The driving motive to make business is profit. But, being profitable is what hot bread on hot red stove. There is an old joke on Wall Street. Invest in the markets and you'll sleep like a baby: You'll wake up every two hours crying, (A. Busch, 2007). Hence, making profit analysis to evaluate whether profit come to surface at period-end is what worries investor most. Profit is the residual income left after meeting all manufacturing, administrative and selling expenses; profitability is the profit-making ability of an enterprise (Gapenski, 2005).

1.2 Statement of Problem

Success or failure of making business is usually measured through green or red light at the bottom line of resource inflows from operating activities of a company less outflows. Profit is thus defined as net of income generated over expenditure incurred in connection with income created, tax withheld and interest paid and accrued (Gapenski, 2005).

This study probes itself in investigating analysis of profitability of production lines in pharmaceuticals manufacturing company. Closely looking at expenditure on pharmaceuticals across globe we can note rapid increase of expending. The increases have been larger in recent years above 12.3 percent per year in USA. Besides, advanced economies have also seen rapid increases in pharmaceutical expenditures—worldwide retail pharmacy purchases increased by 9 percent between September 1998 and September 1999—and these nations expect continuing increases. Pharmaceuticals are also claiming an increasing share of the U.S. health care budget, (Calfee, 2000).

Similarly, according to UNICEF, (2017) National on-budget health expenditure has increased 10-fold in nominal terms from ETB 2.4 billion in 2006/07 to ETB 24.5 billion in 2015/16, at an average growth rate of 12.6 per cent. Even though this is an achievement, considering the pressure of providing health care services to a growing population (91.2 million in 2015/16), which is very low, (US$12) compared to the Sub-Saharan African average that is US$98 per capital expenditure in 2014.

The stories above signals pharmaceuticals manufacturing and trading business is not only in Ethiopia but also around globe has un-tapped opportunity. In addition, there is Continuous investment in research and development, Research and development injected allover world to coupe up ever-increasing pharmaceuticals demands. Government like Ethiopia even provides additional incentives apart from incentive as manufacturing firm. Pharmaceuticals imports are primary area that government provides foreign currency priority given severe scarcity of hard currency in the country. Corporate tax holiday and duty-free imports, exemption from value added tax is some of incentives. EPHARM also has tax holiday for consequent years from 2016-2019 and VAT tax exempted. (FEDERAL NEGARIT GAZETTE, Investment Proclamation no.769/2012)

Despite all fertile business ground in Ethiopia, and challenges in making business, like access to infrastructure, finance, foreign currency, skilled human resources, weak drug registration process in linking with inspection of manufacturing sites abroad; inadequate drug budget, and poor stock management; and many other, made harvesting from this lucrative business won't be easy, (FDRE, 2003, AUC & UNIDO, 2012). Ethiopian Pharmaceutical manufacturing Share Company has passed through all steps, now established business institution, and has come to its peach that is ensuring its ability in generating adequate excess resources over expending.

Consequently, its ability in generating positive performance provided future uncertainty and extent of resource employed on assets, out of operating activities are areas to be analyzed. However, the issues associated with profitability analysis in production line having all available resources at entities disposal and the role of integrity of resources towards establishing strong business that sustains for foreseeable future is the gap have not yet raised sufficient attention and are yet to be assessed (Astversky, 1990) claimed, profitability analysis is incomplete in some essential respects, and the departures are usually because lack of management's attention in conduct production line profit analysis continuously and use the output in making decision. Besides, there is insufficient using information within production line distinguishing profit which is accumulated wealth at the period end and profitability which will be accumulated in future when collective effort is effectively implemented.

It is against this background that this study sought to fill the gap by examining why profitability analysis information are inadequately used and not deployed the information to fix and separate profitable production line and less profitable? Is that give attention by the management board and shareholders profitability of production line information? What made decisions the last 5 years based on profitability analysis? Also is there any future plan made based on past performance information to maximize company profitability? Does Company have planned production line profit margin? Is there any production profitability follow up and decision based on financial analysis? Is there any decision made less profitability production lines to substitute by other production based on financial profitability analysis?

Research and development department and marketing department used financial analysis to maximize company production line profitability? What reasons affects profitability of products? Those entire questions raised and Covered by this research paper.

Thus, this study takes a close look at the Ethiopian pharmaceuticals manufacturing sh. Co. production lines profitability.

1.3 Objective of the study

1.3.1 General Objective

The general objective of the study is, to evaluate profitability analysis in production lines of Ethiopian Pharmaceuticals Manufacturing Share Company, (EPHARM)

1.3.2 Specific Objective

Specific objectives are the following: -

- To evaluate whether all production lines meet the required company return target or not.
- To assess that affects of productivity and profitability for production lines at EPHARM.
- To identify which production lines are profitable and not based on the company sales return target and return on investment.

- To assess decision makers used profitability analysis information to predict the future plan.
- To assess capacity utilization of resources efficiently.

1.4 Research Questions

The research questions to be addressed are: -

- What reasons affect production lines profitability?
- Which production lines are profitable and not?
- Are profitability analyses information used by decision makers?
- Which production lines do meet the required company return target?

1.5 Significance of the Study

Profitability is one of powerful measure of evaluating the overall efficiency of a business. It is output as proportion of input deployed. It can be a comparable result with the other similar firms in the industry, or performance of the same company over year. Hence, production lines profitability analysis is a performance indicator and hence very important to the shareholders, management, tax authorities, potential investors and other researcher and any stack holders.

The shareholders are interested in the profitability of a business because it determines their returns on investment. The tax authorities are interested in the profitability of a company to determine the appropriate tax obligation (Olagunju, et al., 2011).

The shareholders appoint Board of Directors and senior management so that wealth is maximized. These appointees are in charged and entrusted to ensure overall resources are directed towards company's ability to generate supreme return on investment and this superiority to persist indefinitely. To address this basic matter management must carry out profitability analysis. Thus, profitability analysis in production line will prove the effort put is probably accurate and in line with the greater picture, as result management badly needs the outcome of the study.

Modern marketing theory and practice were energized by incentives well beyond mere financial market analysts seeking better trend assessment tools, (Tinghino, Mark, 2008). Hence, potential investors require companies to have rigorous analysis of financial data so that easily understood.

Therefore, profitability analysis of a company sure catch eye and hence invest on the company. Accordingly, the study will assist potential investor in providing more precise data for investment decision making.

Advance world commits much resource to Research and development works to coup up with ever-growing demand and coming up with new product of pharmaceuticals. Therefore, to respond to market signals with better pay-offs matters most. Consequently, using research finding of this study, researchers will advance more in seeking solution for burning needs of investors.

1.6. Scope and Limitations of the Study

This study is intended to analyze profitability of production line in the case of Ethiopian Pharmaceutical Manufacturing Share Company (EPHARM). The scope of the study covers 9 production lines (Tablet, Ointment, Syrup, Capsule, Injections, Ors, IV, Antibiotics, Dry syrup, general capsule) of Ethiopian pharmaceuticals manufacturing sh. Co. at head office and branch factory.

This study is limited in content and time for detail analysis on related issues in EPHARM. The research findings also depend on available data provided by Company. Research limitations and difficulties were acknowledged in the study. The limitations associated to this study were:

- Time constraint: The study cannot be expanded to cover other companies in the sector due to time constraint. Profitability analysis in other similar and non-similar industry varies significantly. Studying profitability analysis is a wider scope, which needs a greater amount of time for a careful study. Considering hectic and busy activities, the researcher had a very limited time to carry out this research.
- Information to be obtained: Business organizations are in most case; reluctant in providing data for fear they loss company's important data (profitable products information from other company) or the researcher expose them and risk people a top. As result, getting adequate and concrete data challenged the study. We cannot compute easily from other company.

CHAPTER TWO

2. LITERATURE REVIEW

2.1 Definition of Profitability

The goal of trading is to make money, and for many, profits are the best way to measure that success. Thus, profitability is ability of a company to generate profit using resource at its disposal, (Salov, 2007).

Profitability is the profit earning capacity which is a critical factor contributing to the survival of the firms as prime motive to make business is profitable. Profitability consists of two words, profit and ability.

The word profit represents the absolute figure of profit, but an absolute figure alone does not give an exact idea of the adequacy. The word 'ability' reflects the power of an enterprise to earn profits, it is called earning performance. Therefore, it is necessary to differentiate between profit and profitability at this juncture. Profit is the residual income left after meeting all manufacturing, administrative and selling expenses; profitability is the profit-making ability of an enterprise (Gapenski, 2005).

The profit figure indicates the amount of earning of a business during a special period. While, profitability denotes whether these profits are constant or improved or deteriorated, how and to what extent they can be improved.

Profitability is the ability to earn profit from all the activities of an enterprise. It indicates how well management of an enterprise generates earnings by using the resources at its disposal. Earnings are an essential requirement to continue the business. So, we can say that a healthy enterprise is that which has good profitability, (Gapenski, 2005). Thus, profitability is a measure of evaluating the overall efficiency of the business.

Profitability is the ability of a business to earn a profit. A profit is what is left of the revenue a business generates after it pays all expenses directly related to the generation of the revenue, such as producing a product, and other expenses related to the conduct of the business activities (Salov, 2007).Profitability data allows owners to focus the business on the right products or services while minimizing time spent on areas of the company that do not generate high profits. Without conducting routine profit analysis, the business owners may be unaware of the exact status of their profits and losses, and this can lead to a severe crisis in the business. Performing an analysis of profitability at the product level is important. So that you will know which products are making the most money and those that are losing money or not making enough?

Profit analysis is the best way to know which products are worth your time. Sometimes business owners are too close to their business, and their decisions become emotional and too difficult for them to be objective in making the difficult decisions,(Salov, 2007).The data generated from profit analysis may also be helpful in determining if your marketing strategy is working or if a specific advertisement brought new sales. Pharmaceutical manufacturing companies may use it when making investment decisions.

2.2 How to Analyze Profitability

Among the tools to which you will be introduced are profitability ratios, break-even analysis, return on assets and return on investment. There are several ways to measure your company's profits other than just looking at your bank account.

Financial analysis is a process of selecting, evaluating, and interpreting financial data along with other pertinent information. In order to formulate an assessment of a company’s present and future financial condition and performance financial analysis is very important.

To measure profitability currently widely used techniques are ration. Financial ratio analysis is the use of relationships among financial statement allocates to gauge the financial condition and performance of a company. Horn, C.V.James. Fundamental of Financial Management, New Jersey, U.S.A., 1989

We can classify   based on the type of information the ratio provides.

Activity Ratios	Liquidity Ration	Solvency Ratio	Profitability Ratios
Effectiveness in putting its asset investment to use	Ability to meet short term immediate obligation	Ability to satisfy debt obligations	Ability to manage expenses to produce profits from sales

Financial ratios may not be directly comparable between companies that use different accounting methods or follow various standard accounting practices.

Financial Ratio

A financial ratio or accounting ratio is a relative magnitude of two selected numerical values taken from an enterprise's financial statements. Often used in accounting, there are many standard ratios used to try to evaluate the overall financial condition of a corporation or other organization. Financial ratios may be used by mangers with a firm, by current and potential shareholders (owners) of a firm, and by a firm's creditors. Financial analysts use financial ratios to compare the strengths and weaknesses in various companies. If shares in a company are traded in a financial market, the market price of the shares is used in certain financial ratios.

Ratios can be expressed as a decimal value, such as 0.10, or given as an equivalent percent value, such as 10%. Some ratios are usually quoted as percentages, especially ratios that are usually or always less than 1.

Types of Ratio

- Profitability ratios
- Liquidity ratios
- Activity ratios (Efficiency Ratios)
- Debt ratios (leveraging ratios)
- Market rations
- Capital budgeting ratios

Sources of Data for Financial Ratio

Values used in calculating financial ratios are taken from the balance sheet, income statement and cash flows or (sometimes) the statement of changes in equity. These comprise the firm's accounting statements" or financial statements. The statements data is based on the accounting method and accounting standards used by the organization.

Horn, C.V.James. Fundamental of Financial Management, New Jersey, U.S.A., 1989

Purpose and Types of Financial Ratio

Financial ratios quantify many aspects of a business and an integral part of the financial statement analysis. Financial ratios are categorized according to the financial aspect of the business which the ratio measures. Liquidity ratios measure the availability of cash to pay debt activity ratios measure how quickly a firm converts non-cash assets to cash assets. Debt rations measure the firm's ability to repay long-term debt.

Profitability Ratios

Profitability ratios measure the company's use of its assets and control of its expenses to generate an acceptable rate of return.

Profitability Ratios: Margins

Each margin ratio compares a measure of income with total revenues.

$$\text{Gross profit margin} = \frac{\text{Gross Profit}}{\text{Total Revenue}}$$

$$\text{Operating profit margin and} = \frac{\text{Operating profit and it}}{\text{Total Revenue}}$$

$$\text{Pretax profit margin} = \frac{\text{Earnings before taxes}}{\text{Total Revenue}}$$

Profitability Ratios: Returns

Return ratios compare a measure of profit with the investment that produces the profit.

$$\text{Return on total capital} = \frac{\text{Net Income}}{\text{Average capital}}$$

$$\text{Return on equity} = \frac{\text{Net Income}}{\text{Average shareholders' equity}}$$

$$\text{Return on assets} = \frac{\text{Net income}}{\text{Average total assets}}$$

Horn, C.V.James. Fundamental of Financial Management, New Jersey, U.S.A., 1989

Most researchers focused on company's targeted return on sales and targeted on investment for their business as a whole. The literature not discussed about production lines profitability by each line segments. We can't find out in this research by each lines return on investment and targeted return on sales. Also isn't comparing the result of each line return on investment. Most researches show that the result of all line return cumulative effect of the company return. Researchers focused on the profitability of the company. Also we can't find any research in Ethiopia researched on production line profitability. So the researcher can't easily compare and construct about product profitability by each lines from this literature. So this research focused on each production lines profitability analysis.

2.3 The Efficiency and Productivity Elements of Profitability

When most organizations were single product operations, they approached the evaluation of the investment level of the organization by considering the ratio of profits to sales and the percentage of capacity used. A multi-product firm pioneered the systematic use of return on investment to evaluate the profitability of its different lines of business.

Return on investment, one of the most widely quoted and used financial ratios, is the ratio of income to investment, with varying definitions of income and investment.

$$\text{Return on investment} = \frac{\text{Income}}{\text{Investment}}$$

The ratio of operating income to sales (also called return on sales, or sales margin) is a measure of efficiency; it reflects the ability of the organization or organization unit to control costs at a given level of sales activity. Shareholders will likely compute the firm's return on investment as return on equity, and may separate this ratio into components as follows:

The ratio of sales to assets (often called asset turnover) is a measure of *productivity:* it reflects the ability to generate sales for a given level of assets. The ratio of assets to equity is a measure of financial leverage

An organization is comprised of a number of different departments all focused towards one goal the betterment of the organization. In the same manner your product portfolio should be such that each and every product in the portfolio is focused towards one goal-Bringing the organization on top by optimally using the resources available.

Chandra P. "Investment Analysis and Portfolio Management". New Delhi Tata mleGraw Hill (2002).

In this article the researcher gives good explanations and detail information about product investment selection and product control, product management and how to break down product portfolios to get a good result from different products as a whole the organization.

2.4 Importance of Product Portfolio to Business Profitability

Innovation

It is very important to follow the strategy of having a product portfolio and analyzing it in the regular intervals in order to plan and come up with the new and innovative line of products to be offered to the target market.

Aligns Projects with the Business Strategy

It is very important that the product offerings and their revenue generations match and align with the long-term vision of the company and the business strategy. As then only the company will be able to accomplish its aims and objectives of higher sales, elevated profits, competitive advantage, and increased market share.

Visualize the Entire Portfolio

Studying and analyzing the operations, revenue generation, and other facets of each and every product on an individual level offered by the company can be very bulky and will not help to draw comparative study effectively. But with the product portfolio in place, all the key members of the management are able to visualize the entire portfolio of the all the old, existing and future products having a broader range.

Effective Allocation of Resources

Having and managing the product portfolio helps in allocating the various resources of the firm such as finances, human resources, and manufacturing plants amongst others in an effective manner. It helps in figuring out the products that are working as the cash cows for the companies, the products that are capable for higher market share but require the boost from the management, and the products that are redundant in nature and needs to be taken off from the market. Chandra P. "Investment Analysis and Portfolio Management". New Delhi Tata mleGraw Hill (2002).

There is one thing stronger than all the armies in the world, and that is an idea whose time has come'.Victor Hugo (1802-1885) French poet, dramatist and novelist. Product ideas are conceived and ultimately communicated through a variety of means and channels, often unique to the industry or specific to a business.

Product managers are responsible for refining the product ideas that pass the initial screening review and make their decisions on whether to further develop an idea based on the specific needs of the product portfolio. This includes existing products as well as new products to be phased in and mature products scheduled to be phased out of the product portfolio.

2.5 Product Pricing for Profitability

Companies used to maximize their profit used different types of pricing method of products. They are:-

1. Market-Based Price
2. Cost-Based price
3. Negotiated price
4. Administered price

Market-Based Prices

If external markets exist for the product or service, market based transfer prices are the most appropriate basis for pricing the transferred good or service. This type of pricing decision based on market assessment mostly doing by marketing and sales department of the company (Limited by market).

Cost-Based Prices

Some common transfer prices are variable cost, variable cost plus some percent markup on variable cost, full cost, and full cost plus some percent markup on full cost. It used widely by manufacturing sector.

Activity-Based Costing

This Costing system checks how overheads are allocated to production lines. Most Companies allocate Overhead costs such as the Engineering maintenance, quality assurance, research and development, general management and utilities in proportion to some form of direct cost. A manufacturing company might allocate its overhead burden to production cost centers the basis of allocation varies bases.

Strategic business planning: Kogan page limited, business knowledge transferltd, 1993, 2002

Negotiated Price

In the absence of market prices, some organizations allow supplying and receiving responsibility centers to negotiate transfer prices among themselves. Negotiated transfer prices reflect the controllability perspective inherent in responsibility centers since each division is ultimately responsible for the transfer prices it negotiates.

Administered Transfer Price

An arbitrator or a manger who applies some transfer pricing policy sets administered transfer prices, for example, market price less 10% or full cost plus 5%. Organizations often use administered transfer prices when a particular transaction occurs frequently. To determine price and maximize profitability of company's production lines all costs are must be recorded and allocated to appropriate products or production lines.

2.6 Ideas on How to make your Manufacturing Processes more Profitable

Manufacturing is a process which requires a lot of testing and refinement in order for it to reach an optimum level of efficiency. Managers and business owners will recognize the time and effort that must continually be invested in order to keep striving for ways to do things better.

Posted by Stephen Whitehouse on 22 Sep 2012

Luckily there are some tried and trusted techniques for improving operational efficiency in manufacturing. Here we look at six ideas for improving processes, and ultimately becoming more profitable:

1. **Examine the Overall Impact of your Purchasing**

   Purchasing decisions should always be linked to demand and business intelligence. Buying in bulk as a matter of course can lead to excessive stock which can have the effect of tying up capital and warehouse space. To get price advantage purchase of goods and service must be compare from different suppliers.

2. **Resource Planning**

   Never underestimate the importance of resource planning and scheduling in making your company more cost efficient.

3. Organizes your Storage Space

Have you thought about what stock items or components see the most traffic, and where it would be best to store them? As part of a manufacturing policy, you should place heavily used items as close as possible to the location in which they are being used, while items which are bulky and could get in the way of production, or see little use, should be left further away. Your store must be prevented from damage, expire and obsolesce stocks.

4. Shift your Inventory as Quickly as Possible

There are only a few industries, take wine for example, where it pays to keep hold of inventory over an extended period of time. As a general rule, you should aim to move your finished products on as soon as possible, as it is unlikely that they will increase in value over time. Avoid storing excessive or discontinued stock as it will be just tying up capital and taking up space.

5. Involve your Team in the Problem Solving Process

Smart manufacturing is all about finding the best solutions, and if you aim to involve your whole team in the structure which develops those solutions, you could encounter less resistance when it comes to implementation.

6. Take time to Analyses and Assess

Many of the ideas outlined above start with a period of examination to understand your manufacturing business better. Without having a close look at every element of your production process, and understanding your facility back to front, many of the opportunities that come with lean manufacturing can be lost.

Posted by Stephen Whitehouse on 22 Sep 2012

In general as it is discussed earlier profitability is all about integration of all resources to maintain successful truck records of yesterday and ensure this to persist for foreseeable future. Thus, profitability analysis requires as managing debtor risk, portfolio management of idle resources, cost management, human resource of skill and experience and pricing strategy and market scan. Ability of generating profit is not merely having adequate resources at hand, or not necessary being successful in previous years. It is about maintaining successful track record of a company for tomorrow as well. Chandra P. “Investment Analysis and Portfolio Management”. New Delhi Tata mleGraw Hill (2002)”.

2.7 Empirical Review

2.7.1 Ethiopian Economy and Pharmaceuticals Industry Profile

The pharmaceutical industry discovers, develops, produces, and markets drugs or pharmaceutical drugs for use as medications to be administered (or self-administered) to patients to cure them, vaccinate them, or alleviate symptom. Pharmaceutical companies may deal in generic or brand medications and medical devices. They are subject to a variety of laws and regulations that govern the patenting, testing, safety, efficacy and marketing of drugs.

According to reports of FMHACA, in 2014/15, about 258 private importers and wholesalers (private suppliers) are involved in the procurement and distribution task across the country. Regarding demand side, the final consumers are numerous and widely scattered in different geographical areas of the country. It had no competitors during the socialist government as their policy do not allow private individuals to operate such activities, which solely given to government organizations such as EPHARM as it had been sole proprietorship during Derge regime, since 1994 the situation being changed by the new government the industry composition is completely changed as the policy focuses on the free market economy. This policy which allows private individual to operate any kind of activity as the result change under taken new corporations emerged and enhanced computation in the industry. This governmental policy also improves the supply of domestic drugs to the society at lower price than the previous prices. And investors also get the investment alternatives and invest their capital on those sectors freely. According to the report issued by Ethiopian Ministry of Health the newly emerged company in the industry includes in addition to EPHARM are the following: Addis Drug Factor, East Africa Drug Factor, Biosole Drug factory, Bethelhem Drug Factor, Lifeline Solution Drug Factory, Sanshine Pharmaceutical (Near Debrezeit), Phews Drug Factor, Pharmaderm Drug Manufacturing, Farmacure Drug Manufacturing, Caddil Pharmaceuticals and Julphar Pharmaceuticals. The above listed companies are operating in the industry since the new government came and enforced some policy changes. This has helped a lot for the industries to improve. In addition to the above mentioned companies, which are already interred in to the drug industry, there are also other companies, which are entering the industry the near future.

Presently the local production capacity of pharmaceuticals is very low and it is believed that the market share of local manufacturers is approximately 15%. The number of Pharmaceutical Products being produced by the local manufacturers is less than 30% out of the products on the national essential medicines list. From the foregoing it can be noted that level of production capacity is very low and there is now a huge opportunity for the growth of Pharmaceuticals Production and supply in Ethiopia.

2.7.2 The local market structure for pharmaceuticals drugs

Currently the market for pharmaceuticals in Ethiopia is met through import (purchase and donation) and local production. Local manufacturing represents less than 15% of the total market for pharmaceutical products. Governmental organizations, private importers, non-government organizations (NGOs) and international agencies such as UNICEF, and WHO, used to participate in the import and distribution of pharmaceuticals. In order to streamline the supply and distribution of essential medicines to the public healthcare facilities the former PHARMID was transformed into Pharmaceutical Fund and Supply Agency (PFSA), as established by Proclamation in 2007(FDRE 2007).The procurement of PFSA is done through international and local tenders as well as through direct purchasing. PFSA also receives some pharmaceuticals through donation from sponsors of vertical programs like Malaria and reproductive health commodities. From its central hub in Addis Ababa and the regional hubs, PFSA distributes medicines and medical supplies directly to healthcare facilities. Private companies import directly from their respective suppliers and distribute to wholesalers and these in turn to retailers.

FDRE – 2003 – the assessment of the pharmaceutical sector in Ethiopia was commissioned by the Federal Ministry of Health and conducted with the financial and technical assistance of the World Health Organization (WHO).

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1. Introduction

This chapter presents the method that was used in the study to collect data and analyze it. It included research design and approach, the study population and study area, sample size determination and sampling techniques, types and sources data, methods of data collection, data processing and methods of data analysis. This chapter deals with how the research was designed and the technique used in investment decisions on the production lines in the Ethiopian Pharmaceuticals Manufacturing Share Company (EPHARM). The study was conducted with a population of Board of Directors, top management, middle management, and division heads from whom a sample were randomly selected for the study. Primary and secondary data had been collected using semi-structured questionnaires, and various second-hand data directly took from entity's database over five years. And then which those data were examined and the collected data were coded, tabulated and graphed for analysis.

3.2. Basic Research Design and Approach

The study was applied both quantitative and qualitative data approaches. The qualitative approach was applied to get more insight and generate explanations about the opportunities and treat of pharmaceuticals manufacturing sectors in Ethiopia. Descriptive research type and survey study design was applied in this research. In terms of time frame, the study was considered across-sectional type was applied; in which data from the subjects were collected. The study central idea was evaluating the role of investment decisions in production lines on profitability in the EPHARM. In general, a total 84 sample populations professional was used.

3.3. The Population and Study Area

The target populations of this study were professionals and expertise of financial and managerial positions specifically individuals who were actively engaged in decision making of Ethiopian Pharmaceuticals Manufacturing Sh. Co. Hence, for the purpose of selection, the researcher used purposive sampling, in which the right respondent had been selected purposely. To purposely select participants or sites means that qualitative researchers select individuals who would best help them understand the research problem and the research questions. The idea is to pick out the sample in relation to some criterion, which is considered important for the particular study. Therefore, using purposive sampling, the research was done in a depth interviewing among high level management, medium level management, group leader, accountants, and auditors.

3.4. Targeted Population

From total of 84 targeted populations, 6 board members, 12 top management, 52 middle level management, 12 accountants and 2 auditors were targeted population.

3.5. Sampling and Sampling Techniques

The researcher used non probability judgmental sampling techniques or purposive sampling method. Because, this research needs expertise understanding that related to the research objectives. From 84 total populations, 22 samples were selected on purposive non probable sampling. Such as 2 from board members, 6 from top managements, 10 from middle level managements, 2 accountants and 2 auditors had been selected purposefully.

3.6. Methods of Data Collection

In this study, the document records and compiling data were all taken in the Ethiopian Pharmaceutical Manufacturing Sh.Co. Primary and secondary data within the company were filled by the finance department and different department of EPHARM. Thoroughly interviews, telephone and questionnaire methods were used. Five years compiled data was used as secondary data from the company and external auditor reports. The questionnaires were filled by high level management, medium level management, group leader, accountants, and auditors. Also branch middle management interviewed by telephone.

To assure reliability and validity of data, most outliner data would be removed, to gain efficiency, accuracy and adequacy information, a great effort was undertaken by referring to secondary data sources from similar firm outside EPHARM.

3.7. Method of Data Analysis

The collected data was organized and analyzed in order to arrive at accurate decision and to meet the objective of the study. The data collected was analyzed using accounting software mostly, Peachtree and Microsoft Excel. In addition, the data was processed and analyzed using descriptive approach using quantitative and qualitative. The data was analyzed by ratio, graphs, tables, charts and ranges.

CHAPTER FOUR

4. DATA ANALYSIS, RESULTS AND PRESENTATIONS

4.1 Composition of staff and Ownership structure

4.1.1 Composition of staff at EPHARM

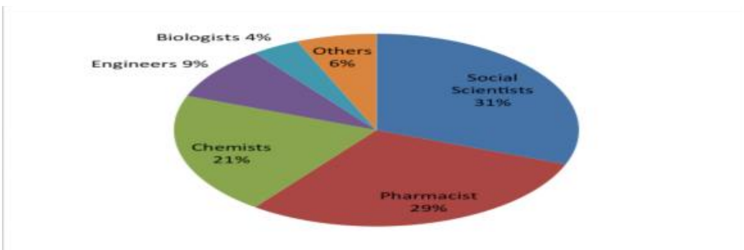


Figure: 1 Composed of team

Source: Ethiopian Pharmaceutical Sh.Co. Magazine 2016 and performance reports

4.1.2 Ownership structure

Table 1: Ownership of Ethiopian pharmaceuticals manufacturing sh. co

Company ownership		
Ownership	Percent	Share capital (initial capital)
Privately held	100.00	122,963,000

Source: Ethiopian pharmaceuticals manufacturing sh.co. Profile magazine

Medtech Ethiopia PLC acquired EPHARM Sh.Co. as at Sep 25, 2014. Before that Medtech Ethiopia was a highly share customer of EPHARM for 2 years. It was a vertical combination. EPHARM obtained by 6 shareholders at different share percentage. The major shareholder is obtaining by Medtech is 91 %. Other 5 are non-control interest shareholders. The sum of 5 shareholders is less than 10%. . (Ethiopian Pharmaceutical Sh.Co. Magazine 2016. Annual plan of EPHARM 2018)

4.2 Respondents Profile

Table 2: Sex of Respondents

Respondent Sex	Frequency	Percent
Male	20	90.90
Female	2	9.09
Total	22	100.0

The table 2 above shows that major participants in this study were male (90.90%) and very few females accounting about (9.09 %). This implies literally managerial role with respect to gender balance is still at infancy stage.

Table 3: Work experience at EPHARM

Service years	Frequency	Percent	Cumulative Percent
Above 10	9	40.90	40.90
below 5	6	27.27	68.17
5-10	7	31.83	100
Total	22	100.0	

40.90 % of interviewer stayed at company above 10 years, 27.27% below 2 years and 31.83% between 5 and 10 years.

Table 4: Educational Level of Respondents

Educational Level	Frequency	Percent
BA Degree	18	81.82
MA Degree	3	13.64
PhD	1	4.54
Total	22	100.0

From the findings shown in table 4, the educational level attained by respondents, mostly Degree level (81.82%), however, only few of the participants acquired Masters Level (13.64%) and PhD only 4.54 % of education. This implies Pharmaceuticals manufacturing industry possess qualified and specialized skill required human capital for securing competitive advantage of profitability.

Table 5: Role of Respondents

		Frequency	Percent
	Board members	2	9.09
	Department manager	6	27.27
	Group leader	10	45.46
	Senior Accountant	2	9.09
	External auditors	2	9.09
	Total	22	100.0

From Table 5, most respondents' job functions included Group Leader (45.46%) and Department Manager (27.27%). Other are audit Services and accountants.

4.3 Primary Data

The researcher gathered primary data as follows.

Result

Primary data was collected through questionnaires and interviewing selected twenty two staff members from the total of 84 populations. These selected staff members include division and Section heads, Middle management, Top management and other staff of the Ethiopian Pharmaceutical Manufacturing Sh.Co. These additions, for the total 22, questionnaires were prepared and surveyed. The questions and questionnaires prepared for those respondents are attached as annexes at the end of chapter 5.

Table 6: Profitability, financial information, productivity and pricing of products

1=Strongly Disagree (SD), 2=Disagree (D), 3=Not Sure (NS), 4=Agree (A) 5=Strongly Agree (SA)

No	Question	SD	D	NS	A	SA
1	Do you believe that EPHARM has not used highly quality machine and high technology to improve production line profitability?	0	5%	8%	5%	82%
2	Do you believe that EPHARM has not reduced cost (efficiently use) to increase production line profitability.	0	0	0	0	100%
3	Do you believe that in EPHARM wastage has big impact to increase production cost.	0	0	0	27%	73%
4	Is the research department use financial analysis information continuously for product development plan?	0	30%	28%	42%	0
5	Marketing department asses that financial information to link the market price of product to maximizing profit?	14%	0	0	57%	29%
6	Profitability of production line is the main issue of Board meeting.	0	0	10%	36%	54%

EPHARM has not used high quality machine and high technology to improve production line profitability is strongly agreed by 82%. 5 % are not agreed. EPHARM reduced cost (efficiently use) to increase production line profitability strongly agreed by all respondents.

30% of respondents research and development department are not used financial informatory to develop product plan. 42% are agreeing that research department is used financial information to develop new products. 28% are not sure.

14% respondents are strongly disagreeing marketing department uses financial information to determine market price to maximize profit. 57% are agreeing that marketing department used financial information to maximize profit. 29% of respondents are strongly agreed.

Most respondents believed information of production profitability line used by board and managers to prepare plan. 85% respondents are EPHARM has targeted plan return on sales production lines. 86% respondents have believed direct material cost high impact for production lines, 0% respondent believed direct labor has impact to cost and 14% are believed overhead costs have high impacts and less profitability.

71% respondents have believed EPHARM used cost- marketing based pricing method. 15% have believed market based pricing method. The remaining believed cost method. 57% respondents are EPHARM is lower productivity because of labor intensive company.

Table 7: Reason behind of low productivity

No	Reason of under capacity/low productivity	High	medium
1	Shortage of Raw Material	85%	15%
2	Machine Break down do to oldness	71%	27%
3	Machine break down shortage of spare parts	57%	43%

- 85% have believed shortage of material has high impact of under capacity and affects profitability. 15% respondents have believed raw material not reason for under capacity.
- 71% respondents believed machine breakdown or oldness of machine have high impact to low productivity and low profitability. 27% believed it has medium impact for low productivity.

- 57% are shortages of spare parts have high impact to low productivity and 43% are believed medium impact for low profitability.

Table 8: Reason for sales and profit increment after privatized

No	Description	Agree	Dis agree
1	Private policy	86%	14%
2	Strategic plan of the entity	86%	14%
3	Committed Workers	100%	0 %
4	Availability of Raw Materials	82%	12%
5	Replace old machine by new machine	56%	44%
6	Replace old product (outdated) by new product	72%	28%
7	Efficiently Resource usage	76%	24%
8	Increase production volume to decrease unit cost(productivity)	67%	33%
9	Diversification of product	86%	14%
10	Marketing Strategy	92%	8%
11	Expansion Strategy	72%	28%

- The reason increase of profit from 2014GC/2007EC was doubled believed by 86% private policy and strategic plan of the entity. 14% are not agreeing. All respondents believed experienced workers are the reason of increase profitability. Diversification of products and increase production volume to decrease unit cost and maximized profitability believed by 86% and 67 % respondents respectively. The remaining 14% and 33 % respectively not believed this reason. Availability of raw material is after privatized agreed by 82% remaining not agreed. Marketing strategy also reason to increased profitability after privatized agreed by 92% respondents. Efficiently resources usage agreed by 76%, the remaining not agreed.
- Replace old product by new product and expansion strategy were the reason to increase profitability of production lines believed by 72% respondents; they remain are not agreed.

Table 9: Industry Strength of EPHARM

No	Description	High	Iedium/low
1	Growth potential	83%	17%
2	Profit Potential	83%	17%
3	Financial stability	72%	28%
4	Technological change	14%	86%
5	Resources utilization	58%	42%

Growth potential and profit potential strategy industry strength of EPHARM believed by 83% respondents high and the remaining said that the impact is medium. 14% respondents believe EPHARM was using high technology. The remaining 86% respondents disagreed.

Table 10: Competitive Advantage of EPHARM

No	Description	High	Medium	Low
1	Market Share	86%	14%	0
2	Product Quality	76%	18%	6%
3	Customer Loyalty	84%	16%	0
5	Technological know-how	42%	36%	22%

In Ethiopia, there was limited pharmaceutical manufacturing industry. Because of that high Competitive advantage of EPHARM has high market share believed by 86% respondents. According to secondary data, showed high competitor of EPHARM was APF (Addis pharmaceuticals factory). Also the quality of products is the reason to highly advantage of the market. 76% are believed high product quality and 18% medium quality and 6% are believed low quality.

Table 11: External factors affecting profitability

No	Description	High	Medium
1	Technology	57%	43%
2	Inflation	71%	29%
3	Price range by competitors	62%	38%

In EPHARM, 95 % of raw materials are imported from abroad. Inflation is one of external factors that have high impact to decline profitability believed by 71% respondents. The remaining respondent believed inflation is medium factors. Because of inflation and shortage of foreign currency is one of the impacts to produce below attainable capacity. EPHARM affected by external technology believed by 57% respondents. Respondents believed that shortage of foreign currency has high impact.

Table: 12 EPHARM has nine production lines. Which production lines are most profitable?

1. TABLET ……4%…………..	6. SYRUP…………………
2. OINTEMENT…15%………...	7.CAPSULE ……81%.
3. IV……………………..…	8.ORS…………………….
4. INJECTION………………	9.ANTIBIOTICS…………..
5. DRY SYRUP……………..	

- From the total respondents 81% believed capsule production line is first profitable production line. 15% respondents believed ointment production line is profitable production line. The other 4 % respondents are tablets production line is high profitable.

Table 13: Which production lines are the least profitable?

1. TABLET ………..……..	6. SYRUP…………………..
2. OINTEMENT………..…	7. CAPSUL ……………..……..
3. IV……………57%……..	8. ORS…………29%………
4. INJECTION…14% ……	9.ANTIBIOTICS…………..
5. DRY SYRUP…………..	

- From total respondents 57% believed IV production line is least non-profitable production line. 29% believed a second non profitable line is ORS production line. The remaining 14 % respondents selected Injection production lines.
- When we see the actual data first and second non-profitable production lines are IV and injection respectively. At the time of investigation raw data and management report shows IV department highly incurred loss because of packing and overhead cost. The line has limited capacity of production. To cover the breakeven point, this department must produce 950,000 bags of IV per year. The breakeven point is covered only 1 year out of 5 years. The reason behind of this limitation of machine capacity is outdated machine or oldness of machine. All machine in that production lines are far from technology.

According to our questioner 14% respondents believed EPHARM needs financial analysist. 86% believe financial analyst is not important. 71% are production line financial information for management decision purpose is important. The remaining does not believe.

In general, to gather the primary data, we focused on high level management, middle level management and accountant who have information about the company profit. The interviews are gathered from board member, management, group leader, accountant & auditors.

From those interviews almost all are noted EPHARM will continue making profit for future. Also they believe to improve company profitability and production lines productivity are directly related. Most respondents believe EPHARM has enough production lines from other competitors except Addis pharmaceuticals manufacturing Share Company. Most respondents believe EPHARM must invest on that production line which is more profitable products rather than non-profitable lines. 88% respondents believed EPHARM have enough profitable production lines.

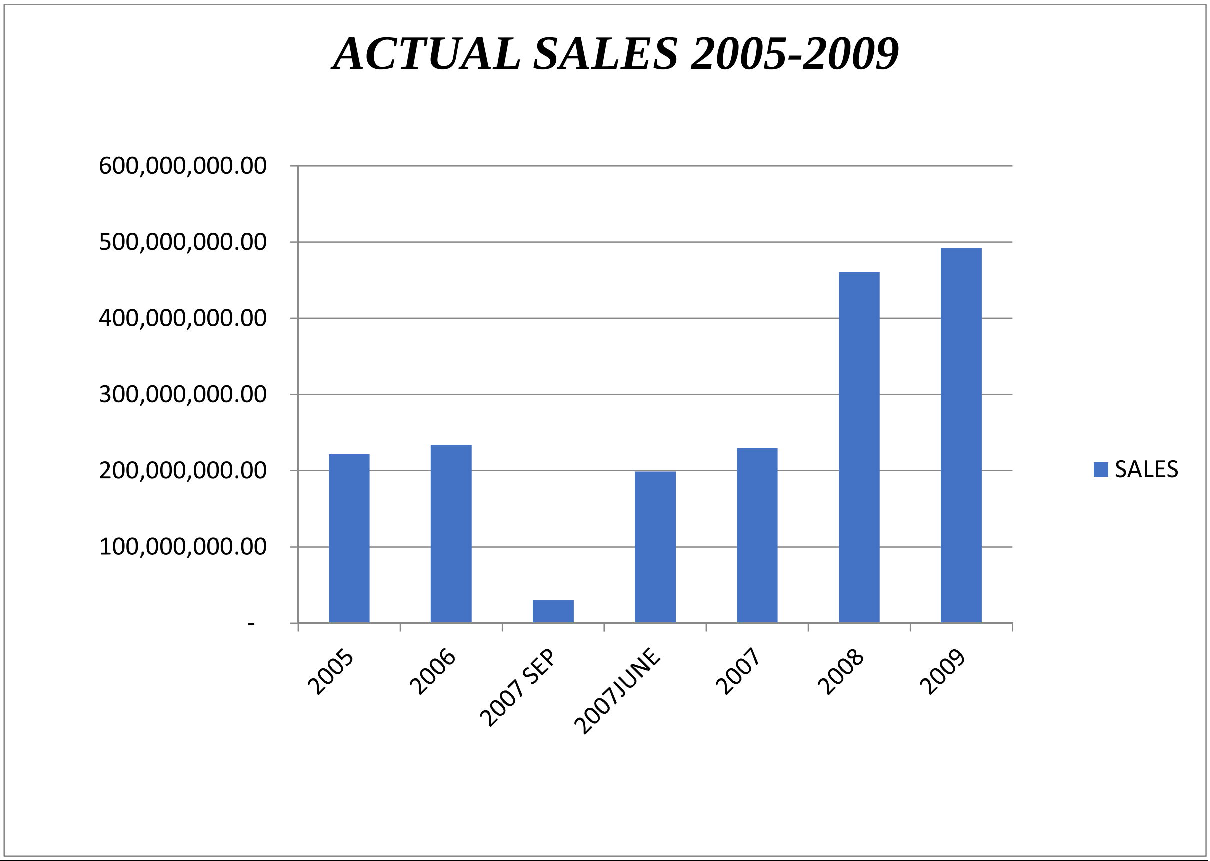
4.4 Secondary Data

In addition to primary data, secondary data was also collected from existing documents and through annual reports, plan and external audit report to meet the objectives of the study as described in chapter 1.

1. To assure all production line, return on sales meet to the require company return on sales target.
2. To identify which production lines are profitable and not profitable.
3. To assure all production line, do fully capacity utilization of the company resources.
4. To assess production lines problem, affect company profitability margin.

According to the plan of the organization, there is high gap between government and private before and after 2008. Because of stretched plan on private policy based on production attainable capacity and market assessment the sales plan highly stretched in private sector rather than government period (before 2007). The results or performance of sales shows doubled within two years.

Figure: 2 Actual sales from 2005-2009

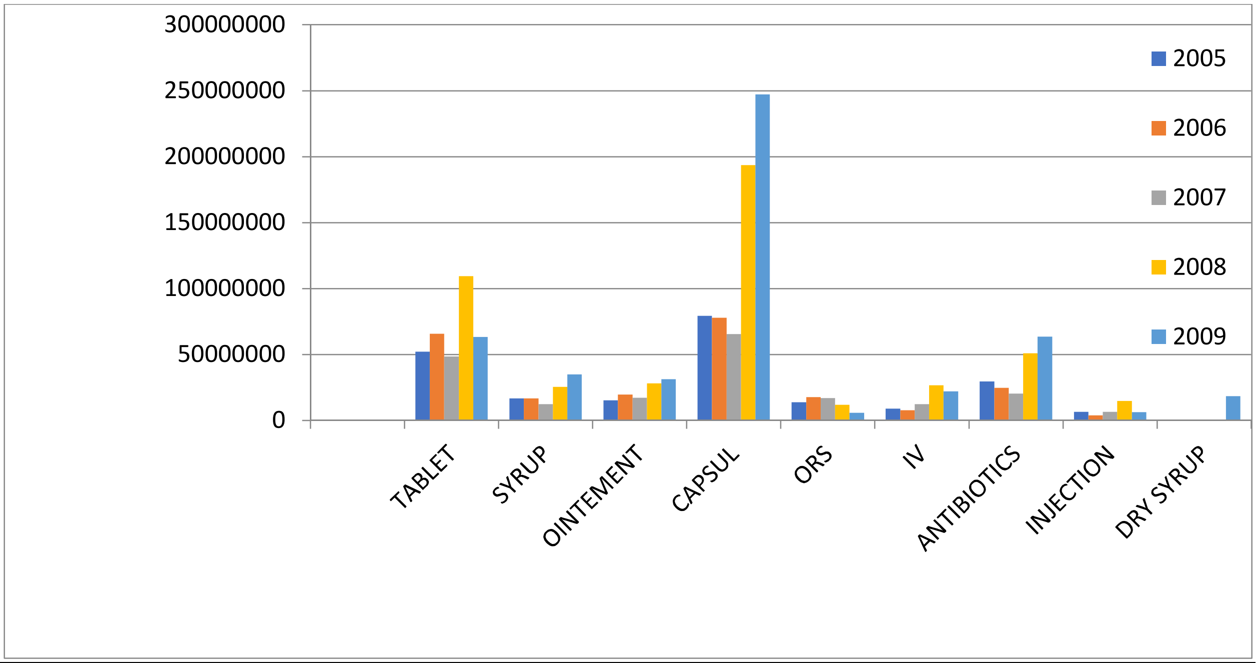


Source: external audit report 5 years

Year	sales (in birr)
2006	233,989,932
2008	460,599,049

Sales increased (doubled) after 2007 because of privatized the company

Figure 3: Five years sales based on production lines



Resource: 5 years finance department production line profit analysis

Based on 5 years secondary data most profitable production lines are ointments, Capsule, Antibiotics, and ORS production lines. IV and injection lines were non profitable production lines.

Table14: Average5 year's attainable production capacity

Description	Average Attainable Capacity 5 years (000)	Performance Average 5 years (000)	%
Tablet	541,065,910	335,909,536	62.08%
Syrup	356,092,275	230,066,040	64.61%
Ointment	11,396,633	6,123,700	53.73%
Capsule	7,473,928	2,369,672	31.71%
ORS	4,627,901	2,481,929	53.63%
IVF	2,921,191	1,691,679	57.91%
Antibiotics	980,671	626,023	63.84%
Injection	12,310,320	4,717,825	38.32%
Dry Syrup	600,000	266,500	44.42%

Resource: 5 years production performance report

Average performance = 52.25

Based on the data the average of actual production performance from the total capacity (plan) for 5 years is between 31.71% and 64.61% the lower and higher percentage respectively. The data shows that it was not fully utilized at full capacity.

The main important things of relating to production, when increasing of production volumes (full capacity utilization) within the given fixed cost can easily decrease production cost and improve profitability. When we see the performance of 5 years production line of EPHARM, it has high unused capacity or high cost incur to fixed cost because of unused part of capacity utilization.

Production performance with profit margin may have not direct relationship. Because sometimes products that have not high margin profit produced at bulk; the production performance will be high and the result of the profit will be low. Let us take 1 example from production line IVF. The average 5 years production performance shows 57.91%. But the profitability of return on sales 5 years and average IV production line is only 4%. The maximum return at full capacity IV production line is only 16%. The minimum was below the coverage of cost -11%. It was produced under capacity at 2005/2012. So, production line must be composed of profitable products by producing bulk or maximum attainable capacity. Organization does not produce but must for profit maximization.

4.5 Production Lines Portfolio Management at EPHARM

There are 9 production lines. They are Tablet line, Syrup line, Ointment line, Capsule line, Antibiotics line, Injection line, ORS line, IV line and Dry Powder line. Its consumption of raw material and packing material treated as direct material and labor cost that involved in those production lines departments treated as direct labor cost. Depreciation, spare part consumption utility consumption and other costs for those lines are treated as overhead costs.

There are also 5 production supporting departments that allocated all cost to production lines as overhead costs. They are Engineering Department, Store and distribution Department, Quality Control and Assurance Department, Research & development and supervision.

As a manufacturing company, the most important data is organized from store and production department. All documents from store department recorded and reconciled by accountant with storekeepers monthly basis. The data after approved by senior cost accountant prepare monthly production cost and the cost and budget heads Approved. The production department prepare plan based on the attainable capacity of machine and requirement of market assessed by marketing department.

Portfolio Product used for product profitability to select and produced based on profitability of products return, to plan production of product consumptions, to plan penetrating marketing of products, to plan research and development for new profitability product and improve old product ingredients, to plan removed less profit margin product ingredient and substitute by new product and to mix profitable products within each production lines

Portfolio products need high attention in pharmaceutical industry. Because, is one way of maximizing profitability in production lines.

4.6 **Return on Sales of Production Lines and Percentage of Share Profit Margin 5 years**

Table 15: Analysis of profit percentage under production line

	DEPARTMENT	2005	2006	2007	2008	2009	TOTAL	AVERAGE
1	TABLET	14%	21%	27%	22%	3%	87%	0.17
2	SYRUP	7%	9%	8%	4%	18%	46%	0.09
3	OINTEMNT	6%	4%	4%	9%	23%	46%	0.09
4	CAPSUL	58%	49%	45%	47%	17%	216%	0.43
5	ORS	6%	9%	2%	3%	5%	25%	0.05
6	IV	-1%	0%	7%	3%	5%	14%	0.03
7	ANTIBOICS	7%	11%	5%	9%	15%	47%	0.09
8	INJECTION	3%	-3%	2%	3%	-3%	2%	0.00
9	DRY SYRUP					17%	17%	0.17
	Total	100%	100%	100%	100%	100%	500%	0.97
							AVERAGE	0.12

Resource: 5 years finance department production line profit analysis

When we see the secondary data the highest average profit percentage production lines 43 % is capsule, the lowest production line is 0 injections. Average contribution of return 9 production lines is 12 %. The highest 5 years average profit % portion taken by capsule production line. The next profitable production line average percentage share from 5 years data tablet production line and dry syrup production line. The lower portion of return was by injection and IV 0 and 3 % respectively.

When we see 5 years data it also depends on the full capacity of the production lines. If all production lines utilize their full capacity, the result may differ from it. Because of unused fully attainable capacity of the production lines will incur additional fixed cost or overhead costs. High overhead costs for each production line leads to incur loss or less profitability of production lines.

Table 16: Return on sales gross profit by production lines

DEPARTMEMET	2005	2006	2007	2008	2009	TOTAL	AVERAGE
Tablet	20%	14%	2%	26%	7%	69%	14%
Syrup	30%	23%	-9%	22%	37%	103%	21%
Ointment	27%	9%	45%	40%	48%	169%	34%
Capsule	53%	27%	19%	32%	36%	167%	33%
ORS	33%	23%	31%	33%	10%	130%	26%
IVF	-11%	-1%	3%	16%	11%	18%	4%
Antibiotic	17%	18%	18%	23%	32%	108%	22%
Injection	32%	-37%	13%	32%	-7%	33%	7%
DRY SYRUP	0%	0%					
TOTAL	201%	76%	122%	224%	174%	797%	159%
AVERAGE	25%	10%	15%	28%	19%	89%	18%

Resource: 5 years finance department production line profit analysis

There are so many reasons under capacity production. Under capacity production the main cause of incurred additional cost. The reason behind of under capacity of production lines are shortage of raw material, shortage of packing materials, shortage of foreign currency, machine break down, shortage of spare parts and other. To make decision or to say the production lines profitable or not it must useful or utilize its attainable production lines capacity.

Based on the research average result from 8 production lines return on sales 5 years are 18% and the maximum average percentage production line sales return is 34% ointment production line. The minimum average sales return is 4% is IV production line. Only high return on sales that does not show the total full capacity of utilization can't measure only result. Return on sales shows the relationship of return from sales in the given time. For example one production line average sales return for 5 year is 33% but the capacity utilized from attainable production only 58%.

- The highest average return on sales of profit share from the total production line is 34% ointment production line)
- The lowest average return on sales percentage of profit share from the total production line profit is 4% IV production lines.

The main important question is here does the directors and decision makers can use this data for decision making and made corrective action? Also they used those data to do plan based on past information and predict the future? Based on our questioner and interview we get that by used those information they made decision. For example based on the information and assessments of profitability analyisis closed the IV production line. After privatized the company targeted return is 22% and above.

Table 17 : Minimum and maximum return on sales

	MINIMUM		MAXIMUM	
DEPARTMEMET	YEAR	%	YEAR	%
Tablet	2007	2%	2008	26%
Syrup	2007	-9%	2009	37%
Ointment	2006	9%	2009	48%
Capsule	2007	19%	2005	53%
ORS	2009	10%	2008	33%
IVF	2005	-11%	2008	16%
Antibiotic	2005	17%	2009	32%
Injection	2006	-37%	2008	32%

Resource: 5 years finance department production line profit analysis

The result shows the company after privatized the profit lines of department near and above the whole company target. 2008/2016 targeted plan return percentage is 31%. When we see the result of 2 subsequent years 2008/2016 and 2009/2017 except 2 production lines all are above 30%. The two loser production lines are proposed to close by managements.

Based on our assessment of production lines most production lines not achieved attainable capacity of production.

The average performance capacity of 5 years is the maximum and minimum and average production lines return and percentage share is listed below.

Table 18: Average, Minimum and maximum Return on sales 5 years

Average	Minimum	Maxims
18%	4%	33%

Resource: 5 years finance department production line profit analysis

Table 19: Average, Minimum and maximum departmental percentage of profit 5 years

Average	Minimum	Maxims
12%	0%	43%

Resource: 5 years finance department production line profit analysis

Table 20: Five years Plan VS actual sales return before tax

DEPARTMEMET	2005	2006	2007	2008	2009	TOTAL	AVERAGE
PLAN	13%	15%	No data	31%	22%	81%	20.25%
ACTUAL	12%	13%		23%	27%	75%	18.75%
VARIANCE	1%	2%		8%	-5%	6%	1.5%

Resource: 5 Plan and performance report

Expected return on sales plan the last four years on average 28% is believed by 25% respondents, 18% respondents believed 20% return and the remaining 57% are believed 30% return.

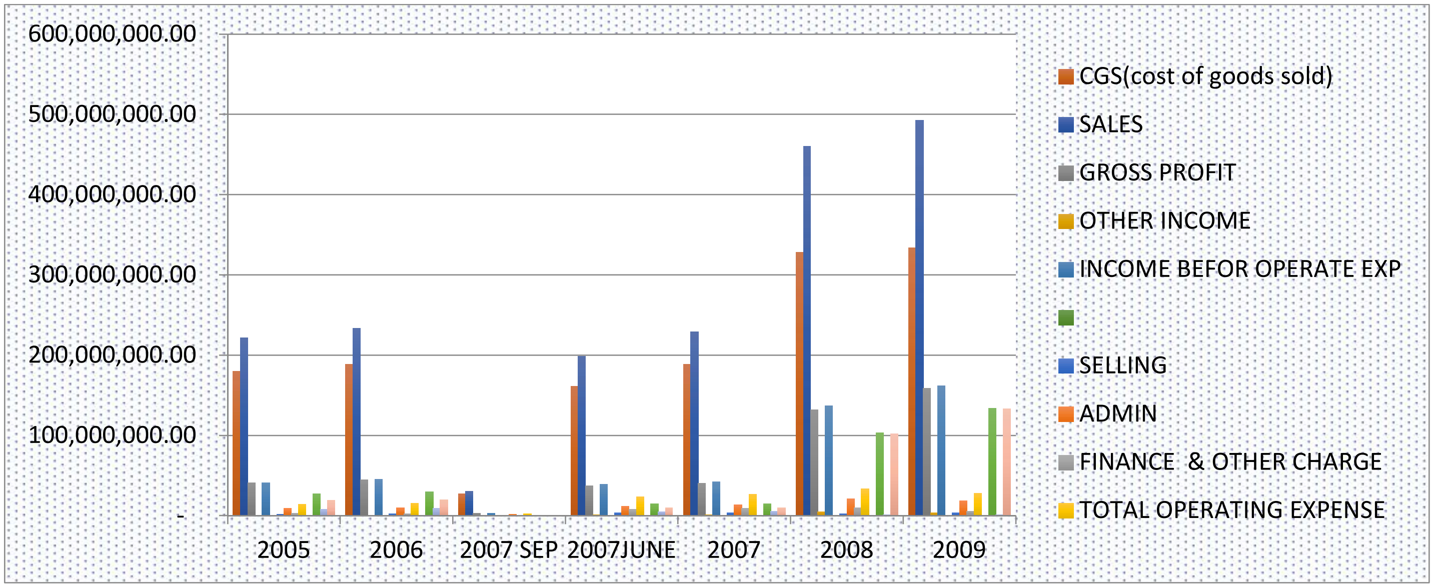
The Data shows average plan return on average is 20.25%. More company prefer 30 % and above. The actual four years performance return on sales is 18.75. We can’t find one year plan data 2007/2014.

.***Table 21: comparisons of sales return 3 pharmaceuticals manufacturing***

	EAST AFRICA		APF		EPHARM	
	2008	2009	2008	2009	2008	2009
SALES	46,175,641.00	49,785,331.00	623,000,000.00	603,000,000.00	460,501,292	492,641,129
PROFIT	10,167,398.00	14,360,255.00	109,000,000.00	157,000,000.00	103,662,079	134,308,863
ROS	0.22	0.29	0.17	0.26	0.23	0.27

In 2009/2016/ EAST AFRICA had less sales rather than APF and EPHARM. But it has high return on sales from other two companies. It shows profitability or return not only high sales or production. It is only the result of mix of profitability product and selective product. It shows product mix bring high profit. When we see the production line of EAST AFRICA are only three. EPHARM and APF have more than nine production lines.

Figure 4: Five years sales, cost of goods sold, gross profit



Resource: 5 years external audit report

Achieved only 233 million sales and 29 million profit at 2006/2013 (before privatized)

Achieved 465,000,000 sales and 88 million profits at 2008/2015(after privatized)

It shows sales and profit doubled after privatized the company.

4.7 Key Results

4.7.1 Key factors affecting profitability of production lines are identified

- Shortage of Raw Material due to lack of foreign currency
- Machine Break down due to outdated machine
- Machine break down due to shortage of spare parts

4.7.2 Identified profitable production lines were

- Capsule
- Ointment
- ORS
- Antibiotics

4.7.3 Identified non profitable production lines were

- IV
- Injection

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. SUMMARY

According to analysis of primary and secondary data there was high gap between company performances since privatized in 2007EC/2014GC. Because of stretched plan on private policy based on production it has a good result (profitable) rather than government period (before 2007). Thus, it signifies various returns from previous performance of the company. Based on the information that collected data and questionnaires return (profitability) affected by nine main factors. This are-

- **Plan in private policy:-**When we see from 2005ec/2012GC/-2006EC/2013GC the plan was not adequately stretched based on the company production capacity, sales and profitability capacity. The sale plan was only Birr 250 million during government era. But, the production, sale turnover and profitability are almost double after 2007. The planed sales volume for the year ended 2008 and 2009 was Birr 1.2 billion, implies sales volume quadrupled immediate to privatization.

- **Price determination policy:-**EPHARM used both cost and market pricing model. The cost-market based pricing a good practice of EPHARM for tender cash and credit sales. the finance department prepares per unit cost of the product and then marketing department assesses the market price from the market, finally mix both results and fix the price of products to achieve the company target. The price determination mostly PFSA tender was invoiced underprice rather than private sales. It affects the return on sales (profitability) of individual production lines and the whole company returns.

  Market price is external factors. In the case of pharmaceuticals industry market price did not affect pharmaceuticals manufacturers for supply side shortage noted in the market. Because the local supply of medicine is not enough for the country to cover the demand. Accordingly to the PFSA (Pharmaceuticals fund supply agency) annual report, the local market cover estimated only 15% from the total market needs in Ethiopia so, it is a good opportunity to Pharmaceutical Industry to supply their products at local market easily.

- **Research and Development: -** to achieve the targeted return on sales of the company and production lines, the Research and Development department has a vital role. Old products and non-profitable products substitute by new entrant product. Also Research and Development consider adjustment of the ingredient of products because it has a big impact to improve profitability. Based on data analysis EPHARM has a good Research and Development Department. It must maximize its role and leads the company to profit maximizes by using develop new products and replaced low profitability products.

- **Oldness of machine: -** EPHARM has machineries which are almost in service over 10-50 years. From our interview most interviewers had mentioned it. These machines had been replaced by new and high technology machine. Because old machine not fit the new technology and to produce bulk products, leads low profitability. Bulk products one way of minimization overhead cost and maximization of profitability. Thus, unless these obsolete machineries are replaced by high tech, it will have negative consequence on its future performance.

- **Shortage of foreign currency (shortage of imported raw material):-** in current situation of Ethiopia almost all (96%) of raw materials of the pharmaceutical industries are imported from abroad. Based on the data raw materials are not available at local market. Hence, it is highly depend on obtaining foreign currency which is stiff in existing market. Consequently, it affects company's production capacity and then its profitability.

- **Shortage of Machine Spare parts:-**The nature of business sought availability of spare parts which in most cases are absent in the local market. Because one small parts of a machine could interrupt the process of whole production line, in most case one day up to one week. In the case of EPHARM collected data showed that besides obsolescence of machineries, spare parts shortage significantly affect its production performance. In some instances company's attempted to use modified parts but it did not work it out per the respondents. This brings low productivity and high inefficiency or high cost. It leads to low margin of profit or out of competitive market because of price.

- **Product Mix at EPHARM:-**EPHARM has 120 product mixes within 9 production lines. So the mixes of product, each line must full-fill the company returns on sales target except that social needed products. Most old products are not fulfilling the company targeted return on sales requirement. That will be better to avoid from production lines to meet the required target. Also it must replace by new product or transform high profit margin products.

- **Production cost: -**EPHARM has employed 2 basic strategies for the price determination. These are:
  - Production cost (raw material, Labor and overhead cost) (cost-based)
  - Product Market Price(market based)

  To determine production cost first direct trace from Raw Material, Packing Material consumption of each production lines and direct labor cost. The other all supportive department engineering, store, quality assurance, research and development, supervision costs allocating for each production lines based on their consumption percentage. Currently according to IFRS, research and development cost split into two parts. The development cost to asset and the research cost is considered as an expense. Finance department must segregate all costs of other department expenses and allocate to each production lines except selling and administrative expenses. Also it must show which costs are highly affecting the products. Based on the information, the Management and the Board will take corrective action to minimize product costs.

- **Wastage of Production: -** EPHARM has wastage percentage limit for Raw Material Consumption and Packing Material consumption for each production line. Based on our assessment, production lines wastage percentage are sometimes above the limited percentage of production lines due to machine oldness and quality of raw Material and Packing Material. There is also Human error create additional production wastage. The wastage of production until the designed limit will be included cost of production. Above the wastage limit considered as management inefficiency. It considers additional expense or administrative expense to the company. So wastage must be controlled to minimized production line cost.

To maximize the profit margin of production lines, minimize wastage of input materials and avoid idle resources mostly labor and breakdown of machine due to shortage of spare parts. Also to minimize cost, machine could be replaced by new machine that brings bulk product within short time. Bulk product within a given time brings high productivity. When production is high within the given time, fixed cost will be low within each production lines and products.

Based on our questionnaire; other sources of information shows competitive advantage of EPHARM is the high share market next to Addis Pharmaceutical Manufacturing Sh.Co. EPHARM has high Product quality, high customer loyalty and high competition capacity. Also some interviewer said that low technology machine using to produce products that bring high cost. This is the main difficult point to compute price from the modern factory that build currently in Ethiopia by investors. There should be considering financial strength and environmental strength of the company to win the industry market size.

From industry strength point of EPHARM, based on assessment, has strong growth and profit earning potential. On the other side, the questioner showed low technological stability, low resources utilization, low productivity, and unused company production capacity. So, the company must improve the above mentioned factors to win the active market throughout the country and to maximize return on production lines, as a whole the company returns will increase continuously.

Based on our assessments the most profitable production lines and meet the required company planed sales return target were capsule, ORS, ointment and antibiotics whereas IV and injection were non profitable or not meet the required company planned sales return target.

5.2. CONCLUSION

EPHARM had a company return on sales target plan for the year ended 2008EC/2016GC 30% and above. It has also, 9 production lines with 120 different products. The actual achieved target was 23% and 27% for 2008/2016 and 2009/2017 respectively. EPHARM win the market by using differentiation products strategy. To maximize profitability of product lines needs critical analysis and investigation of serial number of year’s data and based on that information, decision maker can make decision and maximize company profitability. It also needs commitment that follows the new product line development, upgrading the old product line and reject or close that decline rate of profit margin product lines.

It has a good starting of recording, tracing and allocating to departmentalized costs. Accountants and manager of EPHARM have a good understanding to implement new accounting concepts and segregation of department costs. All that related to Environmental protection and related costs accumulated at EMS (Environmental management system) account.

Supporting department lines are Engineering, Store, Quality and Supervision accumulated for one accounting period and at the end of the year allocated to each production line based on their cost consumed. There is also projects accumulated until the project is finished and when that project is finished it will be capitalized and data is available to determine portfolio of production lines profitability.

In General EPHARM Sh.Co has a good accounting manual and system for finance and other departments. There is also strong internal control by internal auditor and, measuring of yearly quarter and monthly plan. But the company has not planning department separately and also has not separately financial analysis’s accountants.

We conclude that the co. has enough or stretched plan based on company attainable capacity after 2007 EC/2014GC. But to achieve the attainable capacity will be substitute the old machine by new machine. The oldness of machine and shortage of spare parts the main cause of most production lines under capacity production.

EPHARM to get competitive advantage must upgrade the old machine by high technology machine installation will be expected. Because new entrant companies to Ethiopia markets may highly compute the industry. Based on our information new entrant companies used high technology machine and they produced bulk products within the given time. This will be affect the price of market because of they used low overhead cost by high technology. So EPHARM Board members and Managers must alert and implement high technological machines.

EPHARM based on our research has good company culture, good plan and has experienced workers. To maximize its profitability, used high technology, replace old machine by new machine and must select profitable production lines by producing the profitable products based the market assessment and replaced by new entrant of products from Research and Development results to win the market of industry and achieve ultimate goal of the company maximization profit.

In general, the main factors of high profitability in the company to maximize production lines profitability are private policy, committed workers, quality of products (good will of company) and diversified products. On the other hand the main reason of low productivity is outdated of machines, shortage of raw material, foreign currency and high inflation of price. Management and board member focus to maximize the profitability of production lines as well as the company returns as a whole.

5.3. RECOMMENDATION

EPHARM has nine production lines, within lines have 120 products. But not all products are profitable if some products have high profit margin other some production lines have low margins. For example IV and injection production line could be better closed due to small profit margin.

The share holder of the Co., Board and Management must identify the profitable production lines and products based on financial information. Low profit margin production lines could be substituted by new production lines and products or improve the mix of product ingredient, to make profitable products.

Also we recommend that the capacity of machine is very low because of long years of service (oldness). This caused low productivity and made the company to incurred high cost and wastage so; the old machine must be replaced by high productivity level machines. Also diversification of profitability product is necessary to replace the most low profitability product mostly IV, Tablet &injection lines.

EPHARM was established for profit making organization so, under capacity production lines (the most little profitable production lines) are checked by Management and Board based on profitability information and will be decide to shut down the production line or used to other profitable line. They identity the problems by further research about the production line to take corrective action.

The manager and board must use financial information to plan. Most product lines because of under capacity, production utilizations can't maximize their profit. So it expect cover all fixed cost plus variable cost at full resource to maximize their profit margin. Under capacity the main cause of incur loss. The Co. machines almost had depreciated and out dated from the current pharmaceutical industry. For example the one low production profit line (IV) at EPHARM the most profitable production line at new emerged pharmaceutical Co. due to new machine and technology. When company used high technology, labor and overhead cost will be low, and then the profit increases.

Finally we recommend that the company to compare and contrast the plan and actual performance information, needs centralized Planning Department. Also the company needs strategic plan. The financial analysist position will be requiring separately for getting enough information easily produce information and delivering report to Board and Management. The financial analysis information is the backbone of the organization, mostly, for manufacturing sector. Because high productivity only not bring the result of profit must separate which product is more profitable and non-profitable. For non-profitable products must replace by new entrant products based on the research and development department researches, financial analysis information's and assessments of marketing demand as well.

Based on our assessment EPHARM, after privatization, planned the most selective profitable products. After the plan, made to achieve the result the old machine, shortage of spare parts and raw material the main problem of this company the Board and Management must focuses on to replace old machine by new and high technology machine for profitable production lines to produce bulk products and get advantage of cost minimization (utilize fixed costs) and profit maximization. So, only planning can't bring result. It must be followed by corrective actions by identifying problems.

Also most production lines were produced under their capacity. It was not deployed their resource fully. Under capacity is the most reason of the low profitability. EPHARM must utilize its resource fully to achieve the competitive advantage of the company it expected; used their resources by decreasing idle man power, by avoiding wastage, avoiding machine breakdown time to utilize their resource full capacity. Finally, this research not final it is starting that not covers more issues and needs detail information and research. EPHARM and similar manufacturing sectors in Ethiopia needs further research for profitability of production lines analysis to maximize their profitability. This company has a vision; to be "ONE OF THE BEST THREE PHARMACITICULS INDUSTRIES FROM AFRICA AT 2025". So, to achieve the vision must focus on profitability of production lines and profitable products.

REFERENCES

1. African Union Commission (AUC) and the United Nations Industrial Development Organization (UNIDO) to accelerate the implementation of the Pharmaceutical Manufacturing Plan for Africa (PMPA), with funding from the German government – 2012, Africa Union - Addis Ababa.
2. Ambrose J. (PhD Lecturer Vincent), S. Mutswenje(PhD Student School of Business Kenyatta University). International Journal of Humanities and Social Science Vol. 4 No. 4 [Special Issue – February 2014]
3. Arnold S. Wood, Amos Tversky, Werner F.M. De Bondt, Meir Stateman, Lesie Shaw, Russell J. Fuller, Richard S. Pzena, David N. Dreman, Horace Woody Brock – 1990 – Behavioral Finance and Decision theory in Investment. Amos Tversky – The Psychology of Decision Making – Davis-Brack Professor of Behavioral Sciences – Stanford University.
4. Chandra P.“Investment Analysis and Portfolio Management”. New Delhi Tata mleGraw Hill (2002).
5. Charles T. Horngren; Gary L. Sundem; John A. Elliot, and Donna Philbrick – Introduction to Financial Accounting – Prentice Hall (2005)
6. Data Collected from Finance Department of EPHARM Sh.Co
7. Ethiopian Pharmaceutical Sh.Co. Magazine 2016 and 5 years external audit reports; plan and performance management reports of 5 years.
8. FDRE – 2003 – the assessment of the pharmaceutical sector in Ethiopia was commissioned by the Federal Ministry of Health and conducted with the financial and technical assistance of the World Health Organization (WHO).
9. Groppelli, Angelico A,:Ehasan N., Frace, 4TH ED. Barron’s Educational Series, Inc.(2000)p.433
10. John E. Calfee – Prices, and Markets and the Pharmaceutical Revolution – Aei Press (2000).
11. Louis C. Gapenski – Healthcare finance - an introduction to accounting and financial management – AUPHA-HAP (2005).
12. Paul J. At Zberger (2010) – “An Introduction to portfolio theory”
13. Riccardo, J. P. and Ryan, B. (1985). ‘Minimizing the Risks’, Pharmaceutical Executive, November, in Arthur G. Ph.D. – cook – forecasting for the pharmaceutical industry – models for new product and in-market forecasting and how to use them (2006).
14. Tinghino, Mark – Technical analysis tools – creating a profitable trading system – Bloomberg Press (2008) pp 183.
15. UNICEF- Ethiopia – 2017 – health and nutrition budget brief
16. Strategic business planning , Kogan page limited, business knowledge transferltd, 1993,2002
17. Horn, C.V.James. Fundamental of Financial Management, New Jersey, U.S.A., 1989

ANNEX

Annex 1

Five years Sales of production line

LINE	2005	2006	2007	2008	2009
TABLET	52,015,488.91	65,765,122.34	48,574,125.58	109,424,317.94	63,344,789.00
SYRUP	16,626,963.20	16,787,275.20	12,269,179.40	25,322,555.50	34,816,476.00
OINTEMENT	15,118,965.80	19,523,277.65	17,071,460.26	28,195,093.98	31,245,008.00
CAPSUL	79,197,013.40	77,897,148.20	65,360,765.20	193,610,252.60	247,175,366.00
ORS	13,886,316.80	17,561,421.50	16,824,680.30	11,823,285.50	5,762,456.00
IV	8,825,062.10	7,793,197.65	12,272,541.80	26,662,297.50	21,979,467.00
ANTIBIOTICS	29,510,953.05	24,758,522.00	20,351,831.50	50,829,737.90	63,546,152.00
INJECTION	6,370,853.96	3,901,962.25	6,402,381.93	14,731,508.97	6,281,590.00
DRY SYRUP					18,339,061.00
	221,553,622.22	233,989,932.79	199,126,965.97	460,599,049.89	492,490,365.00

Resource: 5 years management production line sales and production report

Annex 2

<u>MANAGEMENT QUESTION</u>

I am conducting research as partial fulfillment of Masters in Accounting and Finance in the department of Accounting under research title “Profitability Analysis of Production Line in the case of EPHARM”. As result, gathering information from top management and middle management is a vital part of this process. Please fill out both parts of this questionnaire. I assure you that any of your responses are not used for other purpose but this research. Besides, parts or full of your response shall not be forwarded to any of 3rd person. It is solely used for this research purpose.

PART ONE – Respondent background Information

1. Sex

    A. Female B. Male

2. Education – highest educational achievement

    B. 1st Degree B. Second Degree C. 3rd Degree D. Diploma E. below

3. How long have you worked in the company?
    A. Above 10 years B. below 5 years C. between 5 & 10

4. Which of the following options best describes your current position level inside the organization (Tick your answer)

    . Board__________________________
    . Top management________________
    . Middle Management ____________
    . Supervisory ___________________
    . Accountant_____________________
    .Other please specify______________

5. How long have you been in this position?
    A. above 10 years B. below 5 years C. between 5 and 10

    In which functional area are you currently employed (working) in the company?

    _________Management _____________Finance/accountant

    _________Engineering _____________Human Recourses

_________Project Management _____________Procurement

_________IT _____________Sales & Marketing

_________Production _____________Other

PART TWO – General informational enquiry

6. EPHARM has 9 production lines. Which of the production lines you think are top 3 profitable production lines? Please rank them from below on blank spaces provided.

   6. TABLET …………….. 6. SYRUP…………………
   7. OINTEMENT…………. 7.CAPSUL ………………
   8. IV……………………… 8.ORS…………………….
   9. INJECTION……………… 9.ANTIBIOTICS……………
   10. DRY SYRUP……………..

7. EPHARM has 9 production lines. Which of the production lines you think are top 3 not profitable production lines? Please rank them from below on blank spaces provided.

   1. TABLET …………….. 6. SYRUP…………………
   2. OINTEMENT…………. 7.CAPSUL ………………
   3. IV……………………… 8.ORS…………………….
   4. INJECTION……………… 9.ANTIBIOTICS……………
   5. DRY SYRUP……………..

8. The main elements of cost of production include cost of input consumed, labor and various overhead costs. Besides selling and distribution and admin costs is all cost before selling out the product. In which segment of the following are you think costs are could have been minimized if management were exerted cost control measures?
   A. Cost of input consumed as some of input costs are expensive but ineffective use causes production cost to boost;
   B. Labor cost – for reason expertise is vital for the production, payroll cost outweigh cost matrix and hence less use as compared to production causes cost ineffective;
   C. Inevitable production overheads causes cost mix heavy and could make less productive;
   D. As selling, distribution, and administration costs are heavy that challenges efficiency;

E. Or outside company's cost such as competition, longer input supply chain, and major customers' longer bill settlement period;
F. If any……………………………………………………………………………….

9. EHPARM has different departments and work units. Which of them stated below are you think active and make bold contributions for the production lines? Please tick on box below as much as you know.

☐ Board of directors; ☐ General Manager Office; Finance and administration; ☐

☐ Sales and marketing; ☐ Planning; ☐ financial analysis; ☐ all

PART THREE – enquiry on the subject matters

10. Investment is usually made on more productive business lines provided a multiple line of production and limited resource. Thus, to minimize future uncalculated risk, companies should carries out extensive data analysis. However, many lack this important element, so, do you think EPHARM has dedicated and staffed work units that carry out data analysis before decision making?

A. Yes indeed; B. No there is no such strong department C. I don't know.

11. Please tick your answer under Yes or No

No		YES	No
1	From review of audited financial statement I noted that EPHARM continued making profit. So do you aware of that?		
2	EPHARM has various departments and work units with respect to size of the company, so do you believe the company has adequate departments and work units?		
3	From Business notion, most people invest in areas where they can get a return on their investment. Therefore, do you believe EPHARM invest on that production line which are more profitable?		
4	Pharmaceutical profit margins vary widely, from less than zero to more than 40 percent, according to a January 2018 study by New York University's Stern School of Business, depending on the size of the company. Hence, do you think EPHARM is profitable?		
5	Does EPHARM have financial analysist separately from other accountant?		

6	Is there any a link to improve company profitability and production line decision.		
7	Do you believe that EPHARM has enough profitability production line financial analysis information that support to management decision purpose?		
8	Is that actual wastage percentage of the production line above the plan wastage percentage?		
9	Is there any product substitute which has less profitability the last five years to improve profitability of production line?		
10.	The Board and Managers are used past data of production profitability line to predicate the future plan?		
11	Does EPHARM production lines have targeted return on sales or planed profit margin percentage from 2005-2009 e.c?		

13.Please Tick your answer Under Less than5, Between 5-10 and Greater than 10

		<5	Between 5-10	>10
1	How much product per line substituted by new product within one budget year planned on average?			
2	How much new entrants products per line on average implemented per year?			
3	How much products make research department to replace mix of ingredient to improve profitability without change quality per year on average?			
4	How many management meeting was issued the last five year on average per year to assess profitability production line by board?			
5	How many decisions are implemented by management relating to production line profitability per year on average?			

12. Which costs is high impact to production lines profitability in the case of EPHARM?

A. Direct material, B. Direct labor C. Overhead cost?

13. How do you think entity's management analyzes the profitability?

A. Through obtaining data from finance department;

B. Using report made from finance only;

C. No as such rigorous data analysis, but looking at the bottom line

14. Does EPHARM has planning department separately? Do you believe that planning department has strong support to company by delivering plan, control, corrective action that use for profitable decision? And how?__________________________

15. Is that EPHARM Labor intensive or capital intensive company?

A, Labor B, Capital

16. EPHARM Pricing Determining method is

A, Market based pricing B, cost based pricing c, both.

17. 1=Strongly Disagree (SD), 2=Disagree (D), 3=Not Sure (NS), 4=Agree (A), 5=Strongly Agree(SA)

No	Question	SD	D	NS	A	SA
1	Do you believe that EPHARM by using highly quality machine and high technology improve production line profitability?					
2	Do you believe that EPHARM has not reducing cost (efficiently use) increase production line profitability.					
3	Do you believe that in EPHARM wastage has big impact to increase production cost.					
4	Is the research department use financial analysis information continuously for product development plan?					
5	Marketing department asses that financial information to link the market price of product to maximizing profit?					
6	Profitability of production line is the main issue of Board meeting.					

18. Why production lines produced under capacity?

No	Reason of under capacity/low productivity	High	Medium	Low
1	Shortage of Raw Material			
2	Machine Break down do to oldness			
3	Machine break down shortage of spare parts			
4	Idle time due to forex issue(imported items)			
5	Shortage of Packing Material(local items)			
6	Insufficient Labor (Human resource)			
7	old machine			
	If any other reason please specifies.			

19. What is the reason behind sales and profit increase after 2007 2 & 3 times?

No	Description	Agree	Disagree

1	Private policy		
2	Strategic plan of the entity		
3	Motivated Workers		
4	Availability of Raw Materials		
5	Replace old machine by new machine		
6	Replace old product (outdated) by new product		
7	Efficiently Resource usage		
8	Increase production volume to decrease unit cost(productivity of machineries)		
9	Diversification of product		
10	Marketing Strategy		
11	Expansion Strategy		

20. Industry Strength of EPHARM

No	description	High	Medium	Low
1	Growth potential			
2	Profit Potential			
3	Financial stability			
4	Technological stability			
5	Resources utilization			
6	Productivity			
7	Capacity			
	If any other reason please specifies.			

21. Competitive Advantage of EPHARM

No	description	High	Medium	Low
1	Market Share			
2	Product Quality			
3	Customer Loyalty			
4	Competitions Capacity			

5	Technological know-how			
6	Control over super & distribution			
	If any other reason please specifies.			

22. Environmental (external) factors affects EPHARM

No	description	High	Medium	Low
1	Technology			
2	Inflation			
3	Price range by competitors			
4	Barrier to entry			
5	Competitive pressure			
	If any other reason please specifies.			

23. In EPHARM sales and profit increase or decrease the last five years? ___________

Why____

24. What type of decision is made by Management and Board meeting about production line improvement? List at least main 3 Decision

____

____

____

25. What percentage company expected return on sales plan for the last five years per year on average? 25% 20% 30% or other ______________________

26. What factors that to low production line profitability within each line?

List Top Three

1. ________________________________
2. ________________________________
3. ________________________________

27. What is the main factor to maximization of profit in EPHARM? Please list Top 3.

1. ____
2. ____

3. ____

28. What is the main factor to minimization cost (in EPHARM ? please list Top (3)

1____

2____

3____

Thank You