

**JIMMA UNIVERSITY
FACULTY OF BUSINESS
MANAGEMENT DEPARTMENT**

**FINAL REPORT ON ANALYZING BUDGETED
COST EFFECTIVENESS OF ETHIOPIAN COFFEE
PLANTATION DEVELOPMENT ENTERPRISE.**

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To: Management Department**

19/9/94E.C.

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Abstract

Budgeted cost effectiveness of coffee plantation development enterprise was assessed with in the light of two objectives.

- A. Detailed examination of both actual and budgeted income statement to hold revenue, cost and profit analysis. The importance, complexity and scope of the problems and possible requirements were identified after this detailed examination.

- B. Giving possible solutions for the significant problems identified after critical evaluation of the enterprise in relation to: Communication and coordination among g departments, sensitivity and analysis, price setting method, inflation and time coverage.

Both primary and secondary datum required to fill the gap were collected and wisely used in both analysis and solution giving phase.

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Acknowledgment

I am Indebted to Mr. Rojers whose comments and recommendations have helped me in writing this report and to Ethiopian coffee plantation development enterprise who cooperation^e in giving necessary datum. My thank for Jimma university is also great for the raw materials made available for the accomplishment of the paper.

CHAPTER ONE

Introduction

1.1. Concept of the issue to be studied

Cost effectiveness analysis is one of the techniques to compare the costs and benefits of a given organization (source: Intranet).

Budgeted cost effectiveness Ethiopia coffee plantation development enterprise was assessed and analyzed in this report.

Ethiopia coffee plantation development enterprise is a public enterprise governed by peoples enterprise supervising authority and its main objective is production and sales of coffee. It is managed by a general manager who is responsible to BOD assigned by EPSA. (Source: the enterprise's annual budgetary document).

This assessment is held to see the impact of sensitivity analysis, inflation, price setting method, time coverage, active participation of all responsible managers, price fluctuation, entry barrier and exit barrier and others on budgeted cost effectiveness.

Both actual and budgeted income statements and other relevant secondary datum were assessed in detail in addition to primary data collected by schedule method.

International price reduction by 50% with in the past 10 years and by 75% with in the past 5 and ^{the question} why variance? was the underlying reason of why I am interested in writing a report on budgeted cost effectiveness of coffee development enterprise (Ethiopia).

Detail examination of the enterprise's budgeted cost effectiveness was not held before except annual performance evaluation was executed by responsible departments.

1.2. Statement of the problem

The organization's over all performances depend on both properly designed budget proposal and its active implementation. This is why every organizations always prepare annual budget for the current year activities. Budget is also one of the techniques used to control activities. It determines the organization's survival also.

1.3. Scope of the study

The report was written based on secondary data collected from both 1992 and 1993 income statement of Ethiopian coffee plantation development enterprise; and primary data collected by using schedule method. Secondary datum were taken from main office which is at Jimma; Primary datum were gathered from finance office, cost & budget department and general manager bureau.

Primary datum were collected within the boundaries of:

- Sensitivity analysis ✓
- Coordination & communication ✓
- Inflation ✓
- Price setting method price fluctuation coverage ✓
- Time coverage and others ✓

The analysis was held under the shadow of :

- Unit of production analysis ✓
- Cost analysis ✓
- Revenue analysis & ✓
- Profit analysis ✓

The report may not be universal to ^{all} organizations because of the listed constraints in the limitation part. ↑

1.4. Objective of the study

The study was held within the boundaries of two major areas,

- A. Detailed examination of both actual and budgeted Income statements to adopt revenue cost and profit analysis. The importance complexity and scope of the problem is identified then.
- B. Possible solutions are given for the significant problems identified after the enterprise was critically evaluated in relation to communication & coordination, sensitivity analysis, price setting method, and ^{price} fluctuation inflation & time coverage based on both primary and secondary data collected.

1.5. Significance of the Study

The final report of this study make the responsible manager being aware of :

- Active participation of all responsible managers during budgeting
- Necessity of active co-ordination and communication among departments
- Ⓟ - Sensitivity analysis when cost, revenue and profit equation are made
- Active price setting method
- Response to wards inflation and
- Time coverage for the future budgetary cycle of the enterprise

CHAPTER TWO

Literature review

The objective of the assessment is identifying problems finding major causes and giving solution as much as possible. This is done by the help of the following information.

Variance Analysis

Three major variance analysis was held in this report:

1. Unit of production variance analysis
2. Cost variance analysis
3. Revenue variance analysis
4. profit variance analysis

Each variance analysis have four level- level one level two, level three and level four. The first two-variance levels are used for the sake of simplicity. Both budgeted and actual income statements used to hold variance analysis are prepared in the following way.

Coffee plantation development enterprise
Income statement
1993

Description	Actual	Budgeted	Variance
Revenue	XX	XX	XX
Costs:			
Cost of good sold	<u>XX</u>	<u>XX</u>	<u>XX</u>
Gross margin	XX	XX	XX
Operating Costs			
R D product design cost schedule	XX	XX	XX
Marketing Costs	XX	XX	XX
Distribution costs	XX	XX	XX
Customer service costs	XX	XX	XX
Adm. Costs	<u>XX</u>	<u>XX</u>	<u>XX</u>
Total operating cost	XX	<u>XX</u>	<u>XX</u>
Operating income	XX	XX	XX
Other income	XX	XX	XX
IBT	XX	XX	XX
Tax	XX	XX	XX
NI	XX	XX	XX

Sensitivity analysis

Any projection of future is uncertain. Recognizing this, managers often perform sensitivity analysis on their projections. This analysis is based on hypothetical questions such as.

- What if labour costs are 10% higher or lower than projected?
- What if new health and safety regulations that let our costs operations are passed?
- What if major supplier of direct material goes bankrupt?

By asking and answering such questions during the planning phase management can determine the risk of various phase & of its operation and can develop contingency plans.

Illustration:

Sensitivity
Analysis

Contingency
Planning

" What if "

" If then "

Optimistic (economic
Conditions and Sales
Better than expected)

. Status quo
. Increase discretionary cost
. Increase se production

Expected sales
Pessimistic
(Economic conditions and sales
Worse than expected)

. Status QUO
. Status QUO
. decrease discretionary expense
. Curtail pan

Communication technology

Active participation

A number of factors including their personal goals and values affect managers belief about the coming period. Although budgets are often viewed in purely quantitative technical terms, the importance of this human factor cannot be over emphasized.

Recent survey indicates that master budgets are used around the world in countries such as Australia, the United Kingdom and Japan. Infact, more than 90% of the companies survey in these countries utilize master budget. Differences arise, however, with respect to budget planning participants and budget goals.

This active participation enhances employee motivation and acceptance of goals and provides information that enables employees to associate rewards and penalties with performance.

Source: (Cost accounting, Creating value for mgt)

Time coverage

Recent innovations in inventory management's production methods have the potential to revolutionize both inventory management and the way accounting is done. Perhaps, the most important innovation is the JIT—^{just -}in time Production philosophy. Using JIT method units are produced or purchased just in time for use, keeping inventories at minimum. Just - in- time has been credited for the success of many Japanes companies and US companies as Lincoln Electric using just - in - time Linclolm Electric is eliminating inventories between production dpts, making the quality and efficiency of production the highest priority, providing the flexibility to change quickly from one product to another emphasizing training and work skills.

JIT has a great role in avoiding waste age .

An expanded JIT definition advanced by Fujio Cho .

Cho identifies seven prominent types of was to be eliminated,

1. Waste from overproduction
2. Waste from waiting time
3. Transportation waste
4. Inventory waste
5. Processing waste
6. Waste of motion
7. Waste from product defects

CHAPTER THREE

Data and methodology

3.1 Data (Material)

Both primary and secondary datum is used in this report. Primary data is collected from the head office bureau and secondary data is from 1992 and 1993 budgetary document secondary data being assessed was:

Ethiopian coffee plantation development ent.
Actual and budgeted Income statement
1993

Description	Actual		Budgeted amount		Variance in % age	
Revenue	159,092,000	00	137,195,600	00	116	00
Cost of production						
Direct Cost						
Labour	26,134,000	00	23,466,700	00	106	00
Material	20,519,000	00	19,427,900	00	105	00
Fuel and lubricants	2,379,000	00	1,606,000	00	148	00
Sub total	49,032,000	00	44,500,600	00	110	00
Indirect Cost						
Form overhead	46,552,000	00	40,948,300	00	114	00
Depreciation	7,502,000	00	9,054,100	00	121	00
Amortization	9,070,000	00	8,887,100	00	103	00
Sub total	63,124,000	00	58,889,500	00	107	00
Total Cost	112,156,000	00	103,390,100	00	108	00
Gross margin	46,936,000	00	33,805,500	00	139	00
Other expense						
Gen. & Adm exp.	7,654,000		18,295,000	00	145	00
Interest Exp.	18,813,000	00	-		144	
Sub total	26,467,000	00	18,295,000	00	144	00
Operation Income	20,469,000	00	15,510,500	00	132	00
Tax (35%)	7,164,150	00	5,428,675	00	132	00
Net Income	13,304,850	00	10,081,825	00	132	00

Note: We do have 4 level of variance analysis: level 1, level 2, levels 3 and level 4.

Both level 1 and level 2-variance analysis were used in our case.

Ethiopian coffee plantation development enterprise

Both actual budgeted IS

1992 E.C.

Description	Actual Cost		Budgeted Cost		Variance (X 299)	% Age
Revenue	96,465,994	00	119,720,200	00	80	
DL	20,945,714	00	19,895,200	00	105	
DM	19,138,224	00	18,199,600	00	105	
Farm OH	41,281,202	00	54,291,700	00	76	
Beginning Inv.	48,972,102		-		-	
Ending inventory	73,039,644		-		-	
Cost of good sold	57,297,598	00	92,386,500	00	62	
Gross Profit	39,168,396	00	27,333,700	00	143	
Other income	6,391,219	00	277,800	00	2,300	
General IT after other income	45,559,615	00	27,611,500	00	165	
Operating expense Adm. Exp	10,040,667	00	7,543,500	00	133	
Interest Cost	23,916,756	00	18,285,700	00	131	
Total Ope. Exp	33,957,423	00	25,829,200	00	131	
IBT	11,602,192	00	1,782,300	00	650	
Tax (35%)	4,060,767	00	623,805	00	650	
NI	7,541,425	00	1,158,495	00	650	

Budgeted actual cost of the budget year 1992 prepared to be used for comparison

3.2 Methodologies and Limitations.

Secondary data being used is collected within the boundaries of coordination and communication, price setting method and price fluctuation, inflation, both entry and exit barriers and substitute products impact using schedule method.

Primary data is analyzed by comparing them with the objective of the study. If it fits the objective it is accepted and if not it is rejected. Secondary datum are analyzed by adopting level one and level two variance analysis; and the performance of the enterprise in the year 1993 and 1992 are compared then.

3.3 Limitation

This study has been limited by constraints like: A variance between actual and standard performance is meaningful only if it is derived from a valid standard. Even standard costs may not be an accurate estimate of what costs should have been under the circumstances. This situation can be arised from either or both of two reasons:

- A. The standard was not set properly
- B. Although set properly in the light of conditions existing as the time changed conditions have made standard obsolete.

Both time and cost required can also affect the effectiveness of the final report the researcher continues to work with responsible managers. Their ability to give constrictive idea may also limit the study.

There is no both beginning and ending inventories on both actual and budgeted income statements of the year 1993. Other income generated during the year is also not registered. Datum collected using schedule method are manager's assumption.

CHAPTER FOUR

4.1 Data collected by schedule method and result discussion

Primary datum were collected with in the light of:

- Sensitivity analysis
- active participation
- coordination and communication
- price setting method and price fluctuation
- inflation
- impact of both entry and exit barriers
- time coverage

Sensitivity analysis

The enterprise is unaware of the concept of sensitivity analysis. It is not in a position to find different scientific ways and methods to test the degree of its sensitiveness even though today's coffee market is more sensitive to multiple wind of changes on the glob. It can gain two major advantages if they will be come aware of it.

1. Get the least point where revenue is maximized and cost is minimized
2. Can divert its direction to produce substitute goods if it is believed to be more profitable.

Price Setting method

We do have three universal price setting method in almost all manufacturing and merchandizing organizations.

- Cost plus pricing method
 - Competition based pricing
 - Perceived value pricing
- Source (principle of mkg, 3rd edition, Cotler)

The enterprise use the second price setting method. If it wants to have the budgeted price of say five years, it use Internet information concerning coffee price in New York city.

It is price follower and cannot maximize its mkt share by setting new price. This is why it is obliged to sell bellow cost incurred. One can see its ineffectiveness in price setting method.

Inflation has no such ~~a~~ significant negative impact on the expected profit since it consider 5% inflation rate as ~~a~~ risk for the sake of adjustments to be held whenever necessary.

Time Coverage

Budget is a quantitative expression for set of time period of a proposed future plan of action by management. The purpose for budgeting should guide the time period chosen for the budget.

Source: management accounting, Horngren, 9th edition

the enterprise is not efficient in using resource called " time " The budgeted amount are not allowed by the concerned mgt on time. Labour power decided on to be hired for the current operation period are not hired on time (this is discussed in detail in cost analyses part). Materials (direct and indirect) are not available on time. These all ^{delay} dalliance causes the increase of inventory which have a negative impact on revenue. Different kinds of constructions decided on to by build in 1993 are no still completed.

Awareness to the concept both of Just- in - time and lead - time can highly reduce dalliance ~~dalliance~~ ^{delaying}.

Participation and coordination

Participation of all responsible bodies during budgeting is almost positive. All cost and profit responsible managers prepare their budgeted- cost proposal during may and bring to the assigned committee for the final approval. It is after a long brainstorming that the budget is decide on.

To generalize the enterprise is successful concerning coordination, Inflation & participation; but not so much effective concerning sensitivity analysis, Price setting method and time coverage both. The negative and the positive impact of these interview results are going to be seen when the secondary data collected from the budgetary document of the year 1993 and 1992.

4.2 Final Results of the Assessment

Assessing the firm's budgeted income statement and actual income statement was started at the beginning of February. The study was held under the following two phases.

- 4.2.1. Detailed examination of secondary data.
- 4.2.2. Proposing a worthy solution for the problem identified.

4.2.1. Detailed examination

To go through secondary data the data the following tentative questions were raised:

- What was done by each cost and profit responsible managers?
- How was it being done?
- By whom was it being done?
- What major problems they faced?

Source: mgt information system 3rd edition Ralph, M. Stair

The enterprise has seven branches with their own cost and profit responsible managers. Being cost and profit responsible of each branch mgr has helped the enterprise in many ways:-

- They have done their best in minimizing cost and maximizing revenue.
- Motivate the responsible managers (position)
- Top level cost profit and investment responsible center ge relief.
- Impact of padding – slack on revenue has been reduced.

Each cost and profit responsible centers has prepared their own plan of action in the form of annual budget proposal at the beginning of every July. (look the following table).

Ethiopian Coffee Plantation and Development Enterprise
Budgeted Income Statement
1993 (July 1st)

Description	Budgeted Cost	Cents
Revenue	137,195,600	00
Manufacturing costs		00
Direct costs		00
Labour	23,466,700	00
Material	19,427,900	00
Fuel & lubricant's	1,606,000	
Sub total	44,500,600	00
Indirect Costs:		00
Farm over head	40,988,300	00
Depreciation	9,054,700	00
Amortization	8,887,100	00
Sub total	58,889,500	00
Total manufacturing costs	103,390,100	00
Gross profit	33,805,500	00
Other expense	-	00
General and administrative expense	18,295,000	00
Sub total	18,295,500	00
Operating income Tax (35%)	15,510,500	00
Tax	5,428,675	00
NT	10,081,825	00

Ethiopian Coffee Plantation and Development Enterprise
Budgeted Income Statement
1992 (July 1st)

Description	Budgeted amount	
	Birr	Cents
Revenue	119,720,200	00
Dnn	19,895,200	00
D. labour	18,599,600	00
Form overhead	54,291,700	00
Beginig inventory		00
Ending inventory		00
Cost of good sold	92,386,800	00
Gross profit	27,333,800	00
Other income	277,800	00
General profit after there income	27,611,800	00
Operating expense	7,583,500	00
Adm. Exp.	18,285,700	00
Interest cost	25,809,200	00
Total operating cost		00
I BIT	1,780,200	00
Tax (35%)	609,800 623,800	00
NI	1,158,400	00

1992 budget amount simply for the sake of comparison

Both past and current information used to arrive the above 1993 budgeted income statement are:

- land holding by purpose
- production and other income
- Coffee production & sales
- Details or profit and loss statement
- Working capital expenditure
- physical farm target
- Number of workers by reduction status
- Total mankind requirements
- Direct labor required and cost of laborue
- Training seminar
- Working plan target action plan
- Material requisition action plan (Source: 1993 Budget proposal).

It was according to the above plan of action that the enterprise has started its work of 1993 E.C. came across with the following annual performance.

4.2.2. Problem identification, cause determination & giving worthy solution.

ETHIOPIAN COFFEE PLANTATION DEVELOPMENT ENTERPRISE
BOTH ACTUAL & BUDGETED INCOME
STATEMENT OF THE YEAR 1993

Description	Actual		Budgeted amount		Variance in % age	
Revenue	159,092,000	00	137,195,600	00	116	00
Cost of production						
Direct Cost						
Labour	26,134,000	00	23,466,700	00	112	00
Material	20,519,000	00	19,427,900	00	105	00
Fuel and lubricants	2,379,000	00	1,606,000	00	148	00
Sub total	49,032,000	00	44,500,600	00	110	00
Indirect Cost						
Form overhead	46,552,000	00	40,948,300	00	113	00
Depreciation	7,502,000	00	9,054,100	00	82	00
Amortization	9,070,000	00	8,887,100	00	103	00
Sub total	63,124,000	00	58,889,500	00	107	00
Total Cost	112,156,000	00	103,390,100	00	108	00
Gross margin	46,936,000	00	33,805,500	00	138	00
Other expense						
Gen. & Admex.	7,654,000		18,295,000	00	42	00
Interest Exp.	18,813,000	00				
Sub total	26,467,000	00	18,295,000	00	145	00
Operation Income	20,469,000	00	15,510,500	00	133	00
Tax (35%)	7,164,150	00	5,428,675	00	132	00
Net Income	13,304,850	00	10,081,825	00	132	00

Note: We do have 4 level of variance analysis: level 1 level 2 levels 3 and level 4

Both

The enterprise's budgeted cost effectiveness is going to be discussed with in the following boundaries.

4.2.2.1. Units of production analysis

4.2.2.2. Revenue analysis

4.2.2.3. Cost analysis

4.2.2.4. Profit analysis

4.2.2.1. Unit of production analysis

The enterprise has budgeted to produce 78,444 quintals of coffee; the actual production achieved is 101,912 quintals.

Description	1993 Actual	1993 Budgeted	1992 Actual	Difference between actual
Unwashed	96,975	48,517	51,391	18,582 F
Washed	31,937	29,927	21,177	10,760 F
Total	101,912	78,444	72,568	29,344 F

4.2.2.2. Revenue analysis

4.2.2.2.1. Budgeted revenue and budgeted price

The enterprise has planned to produce 78,444 Quintals of coffee. The actual quintals of coffee produced are 101,912. The budgeted price per quintal becomes which is 1,748 birr $\left(\frac{137,195,600}{78,444} \right)$

4.2.2.2. Actual revenue and actual price

Actual revenue of the firm is 159,092,000. Actual quantity produced is 101,912.

The actual price therefor is $1,561 (\frac{159,092,000}{101,912}) = 1561$ birr

$$1 \quad \text{Revenue Variance} = \left[\begin{array}{cc} \text{Actual} & - \text{Budgeted} \\ \text{Price} & \text{price} \end{array} \right] \text{Actual quantity}$$

$$= (1,561 - 1,748) 101,912$$

$$= 19,159,456 \text{ U}$$

$$19,057,544 \text{ U}$$

$$2 \quad \text{Sales volume Variance} = \left[\begin{array}{cc} \text{Actual} & - \text{Budgeted} \\ \text{Unit sold} & \text{quantity} \end{array} \right] \text{budgeted Price}$$

$$(101,912 - 78,444) 1,561$$

$$= 36,633,548 \text{ Q}$$

$$3 \quad \text{Flexible Budget Variance} = \left[\begin{array}{cc} \text{actual} & - \text{flexible} \\ \text{result} & \text{amount} \end{array} \right]$$

$$\text{Flexible budget variance} = 159,092,000 - (78,444 \times 1,748)$$

$$= 19,050,176 \text{ u}$$

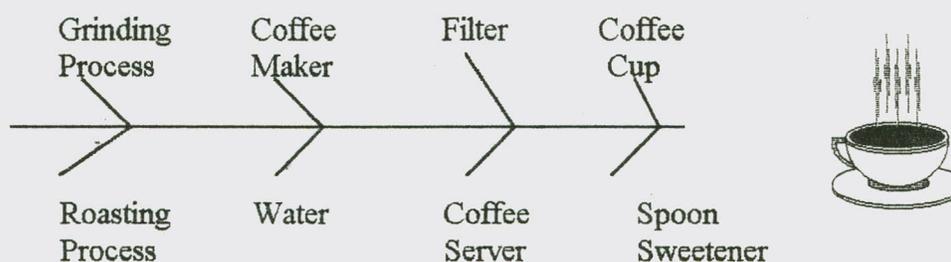
The enterprise is efficient in all marketing activities according to the 2nd favorable figure.

The first figure indicates ineffectiveness

The causes for the ineffectiveness may be:

Quality problem

A good quality coffee should pass through the following processes:



(Source: ~~operation author will be written later~~ ^{chase} management 4th edition)

The enterprise has no such technology. It is not competent enough in international market. More than ¹/₄ percent of the product is sold domestically and majority of it was unwashed. Adapting international technological change is the remedy at least to stay in the market.

Price

There is no force with the ability of breaking the bond between price and quality. It is universally true that price and quality have linear relationship. International coffee price reduced by 50% within the past 10 years and by 75% within the past 5 years (Source:- Ethiopian Radio). The enterprise is not in a position to propose the cause for price reduction; but the following may be proposed as causes with in a view point of different references:

- Substitute products like tea, Pepsi & other soft drinks are increased from time to time all over the globe.
- Coffee production may reach maturation stage.

Wind of price change is beyond the control of management most of the time. Something is still clear; when such a change occurs, the enterprise should improve production technologies and product process technologies. It should also invent new products which can be produced by the present facilities and generate more revenue than coffee. Renting some facilities which are idle because of demand reduction if possible maximize revenue.

4.2.2.3. Cost analysis

4.2.2.3.1. Direct material cost analysis.

The company has planned to incur direct material cost of 19,427,900 birr; but the year end. Actual cost becomes 20,519,000 birr. The variance is 1,091,100 birr u. (look the income statement).

The major reasons for the variance are:

- a. Increased cost of materials
- b. Management is always delay is allowing the budgeted amount. The required amount may be bought from expensive source since no enough time to select best supplier.
- c. Unawareness to the concept of sensitivity analysis wherever budgeting is held.
- d. Just-in-time problem.

The first problem is uncontrolled by management effort. The enterprise is obliged to absorb it as a loss of the budget year. Avoiding delay is the best remedy for the other three. This can be possible by being exposed to the concept of both sensitivity analysis and lead time.

Whenever the enterprise raise the question "What is", the best operation point where cost is minimized and revenue is maximized is become across. Profit maximization starts from this.

The concept of continuous improvement in material usage is not good. (Compare with the actual and budgeted labour cost of 1992 on page-)

4.2.2.3.2. Labour Analysis

The enterprise has planned to incur the total labour cost of Birr 23,466,700; but the actual labour cost incurred becomes 26,134,000 (see income statement of 1993).

The labour cost variance of the operating year becomes Birr. 2,667,300 u

Consider the following table (labour)

Description	Permanent		Temporary		Contract		Total		1993	Total of
	W	E	W	E	W	E	W	E	Total	1992
Beginning of the year	4,702	3,032	13,664	194	32	125	18,398	3,351	21,749	28,855
Hired during the year	460	207	25,169	261	11	55	25,640	523	26,163	28,855
Reduced during the year	348	38	24,883	314	16	60	25,247	412	25,659	29,576
End of the year	4,814	3,204	13,950	141	27	120	18,791	3,462	22,253	22,749

The enterprise is not in a position to give causes for the unfavorable variance (2,667,300 birr u) happened on its annual performance report. The following can be the causes according to the information ~~of~~ from some references and the table given above:

- Workers were hired more than budgeted because of different contingencies such as climate (excess rain).
- Permanent employees' turn over rate is high causing additional cost.

The first problem can not be controlled by management since it is more of natural. It is also difficult for the enterprise to reduce the turn-over rate. Financial motivation usually falls with revenue. The competent employees do not come to the enterprise and the one who have come were always leaving. Loss incurred from this is reduced when enterprise becomes competent enough in both domestic and international market so that the employees are motivated financially & positionally.

4.2.2.3.3. *Factory Over head Analysis*

Budgeted overhead cost assumed to be incurred was 58,889,500 and its actual cost is 63,124,000. The variance between the two becomes 4,234,500.

Actually it is difficult to have tangible assessment on FOH. Different budgeted and actual cost table for different kind of FOM costs incurred in the enterprise is not available and if available there is time constraint. Even the accuracy of the data is unbelievable, Since it is so complicated.

There are two major reasons for this problem.

1. Difficulties in managing over-head costs
2. Carelessness in considering overheads even if overhead costs cover the largest portion of the total operation cost.

The possible remedies may be:-

- Proposing different scientific methods and techniques of managing overheads.
Creating FOH departments for an example.
- Increasing awareness of management toward FOH and inducing them about its effect on revenue and final net income.

4.2.2.4. Profit Variance Analysis

There are many kinds of profits run after by different kinds of both manufacturing and merchandizing business organizations. Some of these are

Contribution margin

Profit margin

Operating income

Net income.

It is the target of any for-profit organizations to maximize net income through maximizing the other three.

This is possible in two ways:-

- a. Minimizing unit cost of production
- b. Maximizing revenue by setting logical price.

Consider the following budgeted and actual project table.

1993 3-2

Description	Actual	Budget	Variance
Contribution margin	110,060,000	92,895,000	17,365,000 F
Gross margin	46,936,000	33,805,500	13,130,500 F
Operating income	20,469,000	15,510,500	4,958,500 F
Net income	13,304,850	10,081,825	3,223,055 F

$$(\text{Contribution margin} = \text{Total revenue} - \text{Total variable cost})$$

The total profit variance are positive (Favorable) although it is insignificant. The enterprise is not effective in budgeted cost usage as it is seen in the ~~time~~ income statement of 1993. The final actual total revenue (159,092,000) is greater than the budgeted one (137,195,600). This is not because the company is effective in

quality and price; but since they are effective is production unit (look production unit table). ~~72,444~~ quintals was budgeted to be produced. The actual production unit becomes 101,912, Quintals. It is this effectiveness that increase total revenue and makes different profits positive. It should be clear that these insignificant positive variances must not hinder the enterprise from attacking the problems identified during both cost and revenue analysis by applying the remedies proposed.

Even the following comparison can be held.

	1993		1992	Variance of actual (%)
	Actual	Budget	Actual	
GP	46,936,000 46,032,000	33,865,500	39,168,396	119
Operational income	20,489,000	15,510,500	11,802,892	45 176
NT	13,304,850	10,081,815	2,541,853 7,541,425	176

Compare budget amount of 1992 with that of 1993 and actual amount of 1992 with the actual one of the year 1993. In 1993 the enterprise ^{has budgeted} budget more and achieve good performance than that of the year 1992. The reason is one; increased quintals of coffee due to good climate.

Summary

As the analysis indicates the enterprise is not effective in budgeted cost usage the major causes for this ineffectiveness ^{are} Major problems identified are:

- Unawareness to the concept of sensitivity analysis
- International coffee price fluctuation
- Delay of management in allowing the budgeted amount in time
- Unawareness to the concept of JIT
- High exit barriers and low entry barriers
- The increment of substitute products.

Problems like unawareness to sensitivity analysis, delay in management decision, unawareness to JIT concept can be tackled by management actions using the remedies mentioned in the discussion part.

5. CONCLUSION

Cost effectiveness analysis is one of the technique to compare the costs and benefits of a given organization (source: Internet). It is based on both primary and secondary data that the budgeted cost effectiveness of Ethiopian coffee plantation development enterprise was assessed in detail. Necessary reference books were used. The datum from these books were concentrate on general topics such as sensitivity analysis, coordination and communication, price setting method and price fluctuation, variance analysis, Inflation, and others

The assessment has two phases: detailed examination and proposing a worth solution for the identified problem.

To made the assessment more simple two things were used.

A. Questions like:

- What was done by each cost and profit responsible managers
- How was it done?
- By whom was it was being done?
- What was the major problems they faced were raised.

B. The variance analysis was held on four general topics: Unit of production, cost variance analysis, revenue variance analysis and profit variance analysis.

Major problems identified during the assessment were.

- Unawareness to sensitivity analysis during budgeting
- International coffee price fluctuation
- Delay of management in allowing the budgeted amount on time
- Unawareness to the concept of Just- in time and lead time
- Substitute products are increased Internationally
- Less entry barriers and high exist barriers.

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