

A STUDY ON MARGINAL COSTING IN GODREJ CONSUMER PRODUCT LTD

S. SIVA* ; MOSES JOSHUVA DANIEL ;
S. SHALINI****

*ASST PROFESSOR
DEPT OF MANAGEMENT STUDIES
ACHARIYA SCHOOL OF BUSINESS & TECHNOLOGY
PUDUCHERRY

**ASST PROFESSOR
DEPT OF MANAGEMENT STUDIES
ACHARIYA SCHOOL OF BUSINESS & TECHNOLOGY
PUDUCHERRY

***MBA STUDENT
DEPT OF MANAGEMENT STUDIES
ACHARIYA SCHOOL OF BUSINESS & TECHNOLOGY
PUDUCHERRY

Introduction

The costs that vary with a decision should only be included in decision analysis. The marginal cost of a product – “is its variable cost”. This is normally taken to be; direct labor, direct material, direct expenses and the variable part of overheads.

It is the technique of presenting cost data wherein variable costs and fixed costs are shown separately for managerial decision-making. It is simply a method or technique of the analysis of cost information for the guidance of management which tries to find out an effect on profit due to changes in the volume of output. These are different phrases being used for this technique of costing. Marginal costing technique has given birth to very useful concept of contribution where contribution is given by: Sales revenue less variable cost (marginal cost). Contribution may be defined as the profit before the recovery of fixed costs. Thus, contribution goes toward the recovery of fixed cost and profit, & is equal to fixed cost + profit ($C = F + P$).

Principles of Marginal costing

The fixed costs will be the same for any volume of sales and production (provided that the level of activity is within the ‘relevant range’).

- Revenue will increase by the sales value of the item sold.
 - Cost will increase by the variable cost per unit.
 - Profit will increase by the amount of contribution earned from the extra item.
- a) The volume of sales falls, the profit will fall from amount of contribution.
 - b) Profit measurement should base on of total contribution since fixed costs relate to period of time and do not change with increases or decreases in sales volume.

Need of the Study

The need of the study helps the company to identify their position by which the company can increase or decrease the total cost of production. It also helps the company to identify and offer a minimum rate of product price according to the expectations of the customer so that the company's sales level will get increased. Hence, it is prepared to understand the study on marginal cost.

Scope of the Study

- ✓ The study covering a period of three years between 2009-2012.
- ✓ The study of performance is compared within this period.
- ✓ The study covers the financial position of the Godrej consumer Product Ltd.
- ✓ The study is focused to analyze the weaker position of the firm.

Objectives of the Study

- ✓ To understand the financial position of the company.
- ✓ To study the marginal cost of the company.
- ✓ To analyze the various elements of marginal cost in Godrej Consumer Products Ltd.
- ✓ To study the growth and development of Godrej Consumer Products Ltd.

Testing of Hypothesis

H₀: When Production Quantity increases, assessable value remains same.

H₁: When production quantity increases, clearance quantity remains the same.

Research Methodology

“A research design is the arrangement of conditions for collection and analysis of data in manner that aims to combine relevance to the research purpose with economy in procedure”. This study involves only the secondary data covering a period of three years between 2009-2012. The secondary data was collected from company's website for profile, magazines, articles relating to marginal cost and management tools. The annual report and cost details provided by the company. Statistical tools like, Growth Rate, Correlation, T – Test were used.

The Godrej Group:

Established in 1897, the Godrej group has grown in India from the days of the charkha to nights at the call centers. Our founder, Ardeshir Godrej, lawyer-turned- locksmith, was a persistent inventor and a strong visionary who could see the spark in the future. His inventions, manufactured by his brother Pirojsha Godrej, were the foundation of today's Godrej empire. One of India's most trusted brand, Godrej enjoys the patronage and trust of around 500 million Indians every single day. There customers mean the world to us. With 7 major companies with interests in real estate, FMCG, industrial engineering, appliances, furniture, security and agri care – to name a few – our turnover crosses 3.3 billion dollars. Godrej as such an integral part of India – like the bhagara or the kurta – that you may be surprised to know that 25% of our business is done overseas. It shows more than 60 countries ensure that our customers are at home with Godrej no matter where they go. With brands customer can believe in, services excellence they can count and the promise of brighter living for every customer, Godrej knows what makes India tick today.

Today, a point in Godrej's history when our amazing past is meeting up with its spectacular future head on. Godrej is learning and relishing being young again.

Review of Literature

Marginal Costing is the technique of costing fully oriented towards managerial decision making and control. This technique can be used in conjunction with any method of cost ascertainment. It can also be used in combination with technique such as budgeting and standard costing.

Marginal costing is helpful in determining the profitability of products, departments, process and cost centers. While analyzing the profitability, marginal costing interprets the cost on the basis of nature of cost.

The emphasis is on behavior of the costs and their impact on profitability.

Marginal cost is defined by I.C.M.A, London as "the amount at any given volume of output by which aggregate costs are changed if the volume of output is increased or decreased by one unit. In practice, this is measured by the total variable costs attributable to one unit."

Marginal cost in other words is variable cost. For a typical manufacturing company the following elements of costs are variable or marginal costs:

- Direct material
- Direct wages
- Direct expenses
- Variable overheads

Thus, Marginal Cost = Prime cost + Total variable overheads

Or

Marginal Cost = Total cost - fixed cost

Production Quantity:

It determines the quantity of company or retailer should order to minimize the total inventory costs by balancing the inventory holding cost and average fixed ordering cost.

Clearance Quantity:

It is the price of goods or a service at which quantity supplied is equal to quantity demanded, also called the equilibrium price. Another clearing quantity may be a price below equilibrium price to stimulate demand.

Assessable Value:

The value of goods taken in course for calculation of vat is called assessable value. The concerned officer may increase often it if he finds deviations or absence of justified co-relation between the input or purchase value and sale value.

Table No.1 show the growth rate of Production Quantity of Godrej Consumer Product Ltd.

Months	2009-10 (Rs.lak)	2010-11 (Rs.lak)	2011-12 (Rs.lak)	Growth Rate Of 2009-11 %	Growth Rate Of 2010-12 %
April	11891	1584	51528	-86.67	3153.03
May	24586	16105	26224	-34.49	62.83
June	35274	43750	30927	24.02	-29.30
July	40185	40868	37479	1.69	-8.29
August	24789	48886	37195	97.20	-23.91
September	26832	55484	53419	106.78	-3.72
October	30428	52132	60872	71.32	16.76
November	39036	56291	62979	44.20	11.88
December	63293	73595	34663	16.27	-52.90
January	16479	49345	41615	199.44	-15.66
February	37500	47005	43337	25.34	-7.80
March	39867	35747	54387	-10.33	52.14
Grand Total	390160	520792	534625	454.80	3155.04
Mean	32513.33	43399.3	44552.08	37.90	262.92
Std. D	13405.79	18919.2	11922.16	74.30	910.73

Source: Secondary data

The table 1 identifies that growth rate of Production Quantity shows the month of April in all the year is considered to be high. It cross above 3,000 where as the rest of the months are below 100. Hence the other months are goes on declining.

Table No.2 show the Growth rate of Clearance Quantity of Godrej Consumer Product Ltd.

Months	2009-10 (Rs.lak)	2010-11 (Rs.lak)	2011-12 (Rs.lak)	Growth Rate of 2009-11 %	Growth Rate of 010- 2012 %
April	13312	1584	48529	-88.10	2963.69
May	23674	15285	28135	-35.43	84.06
June	33168	41212	31018	24.25	-24.73
July	41699	40299	37859	-3.35	-6.05
August	26333	46556	35450	76.79	-23.85
September	22932	60241	54515	162.69	-9.50
October	34004	52957	54571	55.73	3.04
November	38996	53139	61826	36.26	16.34
December	44255	72557	38344	63.95	-47.15
January	34223	49332	46295	44.14	-6.15
February	38956	48048	40802	23.33	-15.08
March	40127	39592	55793	-1.33	40.91
Grand Total	391679	520802	533143	358.96	2975.54
Mean	32639.92	43400.17	44428.08	29.91	247.96
Std. D	9273.368	18960.78	10770.31	61.97	855.91

Source: Secondary data

The table 2 identifies that growth rate of Clearance Quantity shows the month of April in all the year is considered to be high. It cross above 2,500 where as the rest of the months are below 100. Hence the other months are goes on declining when compared to April.

Table No.3 show the growth rate of Assessable Value of Godrej Consumer Product Ltd.

Months	2009-10 (Rs.lak)	2010-11 (Rs.lak)	2011-12 (Rs.lak)	Growth Rate Of 2009-11 %	Growth Rate Of 2010-12 %
April	14536704	163200	30458421	-98.87	18563.24
May	15714048	12143250	25270573	-22.72	108.10
June	27411300	26359334	33783368	-3.83	28.16
July	40400170	33460434	38491278	-17.17	15.03
August	21717784	26684360	33039510	22.86	23.81
September	13672565	34183934	38072084	150.01	11.37
October	25011701	35898610	31364172	43.52	-12.63
November	23929500	32069360	35055342	34.01	9.31
December	24746400	38186610	22475880	54.31	-41.14
January	19290755	36995306	47470490	91.77	28.31
February	26536436	36751588	46276272	38.49	25.91
March	30010983	29966270	45773532	-0.148	52.75
Grand Total	282978346	344362256	427531222	292.24	18812.26
<i>Mean</i>	23581528.8	28571854.7	35627576.8	24.35	1567.68
<i>Std. D</i>	7476657.95	11437444.9	8013194.84	62.09	5352.33

Source: Secondary data

The table 3 identifies that growth rate of Assessable value shows the month of April in all the year is considered to be high. It cross above 15,000 where as the rest of the months are below 100. Hence the other months are goes on declining.

Correlation Results

Table No.4 correlation results for 2009 -10

Particulars		Production Quantity	Clearance Quantity	Assessable Value
Production Quantity	Pearson Correlation	1	.806(**)	.567
	Sig. (2-tailed)	.	.002	.055
Clearance Quantity	Pearson Correlation	.806(**)	1	.768(**)
	Sig. (2-tailed)	.002	.	.004
Assessable Value	Pearson Correlation	.567	.768(**)	1
	Sig. (2-tailed)	.055	.004	.

Source: Secondary Data

** Correlation is significant at the 0.01 level (2-tailed)

From the above table correlation results that there is perfect positive correlation between clearance and production quantity (.806) and between assessable value and clearance quantity (.768). There is no correlation between production and assessable value.

Table No.5 correlation results for 2010-11

Particulars		Production Quantity	Clearance Quantity	Assessable Value
Production Quantity	Pearson Correlation	1	.992(**)	.903(**)
	Sig. (2-tailed)	.	.000	.000
Clearance Quantity	Pearson Correlation	.992(**)	1	.920(**)
	Sig. (2-tailed)	.000	.	.000
Assessable Value	Pearson Correlation	.903(**)	.920(**)	1
	Sig. (2-tailed)	.000	.000	.

Source: Secondary Data

** Correlation is significant at the 0.01 level (2-tailed).

From the above table correlation results that there is perfect positive correlation between production and clearance quantity (.992) and production and assessable value (.903) and also has positive correlation between assessable and clearance quantity (.920). There is no correlation for production quantity.

Table No.6 correlation results for 2011-12

Particulars		Production Quantity	Clearance Quantity	Assessable Value
Production Quantity	Pearson Correlation	1	.969(**)	.287
	Sig. (2-tailed)	.	.000	.366
Clearance Quantity	Pearson Correlation	.969(**)	1	.344
	Sig. (2-tailed)	.000	.	.273
Assessable Value	Pearson Correlation	.287	.344	1
	Sig. (2-tailed)	.366	.273	.

SOURCE: Secondary Data

** Correlation is significant at the 0.01 level (2-tailed).

From the above table correlations results that there is perfect positive correlation between production quality and clearance quality (.969). There is no correlation between production quality and assessable value.

Testing of Hypothesis

Hypothesis - 1

H₀: When Production Quantity increases, assessable value remains same.

H₁: When Production Quantity increases, assessable value also increases.

Table 7 T-Test result of Hypothesis-1

	N	Mean	Std. Deviation
Production Quantity	12	32513.3333	13405.78792
Assessable Value	12	23581528.8333	7476657.95777

	T-Test results			
	t	Df	Sig. (2-tailed)	Mean Difference
Production Quantity	8.402	11	.000	32513.3333
Assessable Value	10.926	11	.000	23581528.8333

The calculation t value (10.926) is greater than the significant value (0.000); hence null hypothesis is rejected. So when production quantity increases, assessable value also increases.

Hypothesis – 2

H₀: When production quantity increases, clearance quantity remains the same.

H₁: When production quantity increases, clearance quantity also increases.

Table 8 T-Test results of Hypothesis-2

	N	Mean	Std. Deviation
Production Quantity	12	32513.3333	13405.78792
Clearance Quantity	12	32639.9167	9273.36797

	T –Test results			
	t	df	Sig. (2-tailed)	Mean Difference
Production Quantity	8.402	11	.000	32513.3333
Clearance Quantity	12.193	11	.000	32639.9167

The calculated t value (12.193) is greater than the significant value (0.000); hence null hypothesis is rejected. So when production quantity increases, clearance quantity also increases.

Hypothesis - 3

H₀: When Production Quantity increases, assessable Value remains same

H₁: When Production Quantity increases, assessable value also increases.

Table 9 T-Test results of Hypothesis-3

	N	Mean	Std. Deviation
Production Quantity	12	43399.3333	18919.25148
Assessable Value	12	28696854.6667	11102019.24592

	T – Test results			
	t	df	Sig. (2-tailed)	Mean Difference
Production Quantity	7.946	11	.000	43399.3333
Assessable Value	8.954	11	.000	28696854.6667

The calculation t value (8.954) is greater than the significant value (0.000); hence null hypothesis is rejected. So when production quantity increases, assessable value also increases.

Hypothesis – 4

H_0 : When production quantity increases, clearance quantity remains the same.

H_1 : When production quantity increases, clearance quantity decreases.

Table 10 T – Test results of Hypothesis-4

	N	Mean	Std. Deviation
Production Quantity	12	43399.3333	18919.25148
Clearance Quantity	12	43400.3333	18960.74276

	T – Test results			
	t	df	Sig. (2-tailed)	Mean Difference
Production Quantity	7.946	11	.000	43399.3333
Clearance Quantity	7.929	11	.000	43400.3333

The calculated t value (7.929) is lesser than the significant value (0.000); hence null hypothesis is rejected. So when production quantity increases, clearance quantity has been decrease.

Hypothesis-5

H_0 : When Production Quantity increases, assessable Value remains same

H_1 : When Production Quantity increases, assessable value also increases.

Table 11 T – Test results of Hypothesis – 5

	N	Mean	Std. Deviation
Production Quantity	12	44552.0833	11922.15554
Assessable Value	12	35460935.1667	7968935.56495

	T – Test results			
	t	df	Sig. (2-tailed)	Mean Difference
Production Quantity	12.945	11	.000	44552.0833
Assessable Value	15.415	11	.000	35460935.1667

The calculation t value (15.415) is greater than the significant value (0.000); hence null hypothesis is rejected. So when production quantity increases, assessable value also increases.

Hypothesis – 6

H_0 : When Production Quantity increases, clearance quantity remains same

H_1 : When Production Quantity increases, clearance quantity also increases.

Table 12 T – Test results of Hypothesis - 6

	N	Mean	Std. Deviation
Production Quantity	12	44552.0833	11922.15554
Clearance Quantity	12	44428.5833	10770.12359

	T – Test results			
	t	df	Sig. (2-tailed)	Mean Difference
Production Quantity	12.945	11	.000	44552.0833
Clearance Quantity	14.290	11	.000	44428.5833

The calculation t value (14.290) is greater than the significant value (0.000); hence null hypothesis is rejected. So when production quantity increases, assessable value also increases.

Findings

From the table: 3 the result shows at the month of April the growth rate was increased above 15,000, at the month of May, June, July, August, September the growth rate was at profit level because it is above 100 percent and below 100 percent. But at the month of October and September it was decreased to below -100 and rest of the months November, January, February, and March the growth rate was increased to profit level.

From the table: 4 correlation results that there is perfect positive correlation between clearance and production quantity (.806) and between assessable value and clearance quantity (.768). There is no correlation between production and assessable value.

From the table: 5 correlation results that there is perfect positive correlation between production and clearance quantity (.992) and production and assessable value (.903) and also has positive correlation between assessable and clearance quantity (.920). There is no correlation for production quantity.

From the table: 6 correlation results that there is perfect positive correlation between production quantity and clearance quantity (.969). There is no correlation between production quantity and assessable value.

From the table: 7 the calculation t value (10.926) is greater than the significant value (0.000); hence null hypothesis is rejected. So when production quantity increases, assessable value also increases.

From the table: 8 the calculated t value (12.193) is greater than the significant value (0.000); hence null hypothesis is rejected. So when production quantity increases, clearance quantity also increases.

From the table: 9 the calculated t value (7.929) is lesser than the significant value (0.000), hence null hypothesis is rejected. So when production quantity increases, clearance quantity has been decrease.

From the table: 10 the calculation t value (15.415) is greater than the significant value (0.000), Hence, null hypothesis is rejected. So when production quantity increases, assessable value also increases.

From the table: 11 the calculation t value (14.290) is greater than the significant value (0.000), Hence, null hypothesis is rejected. So when production quantity increases, assessable value also increases.

Suggestion & Recommendation

- ✓ The company should improve more credit facilities to the customers. It will create good sales.
- ✓ The company should concentrate on local sales by sales expert.
- ✓ Labor participation in the management should be encouraged.
- ✓ The company has to focus on additional unit of the products.

Conclusion

The growth and development of any country is measured in terms of the industrial development of the country. Industries play a vital role in the development of a nation's economy. From the critical analysis depicted throughout the study, it is evident that the overall performance of the company with regard to profitability is satisfactory.

Since the Godrej Consumer Product Ltd, is a International company they have to concentrate on the growth rate at every month of the year not only at beginning of the accounting year. The

basic objective is to develop the industries so that the country need not rely upon others for its requirements.

Overall, this project was useful and informative for me and helped me to know the growth and development of the Godrej consumer product ltd.

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