



Selling & Marketing Expenses and Profitability analysis of selected Telecom companies

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Abstract

This study focuses on importance of relationship between Selling & Marketing Expenses with profitability of selected Telecom companies in India for a period of 10 years (2006 - 2016), with a total of 20 firm years. To determine the effectiveness of marketing expenditure with respect to net profitability Multiple Correlation and Regression Analysis were used. Net Profitability (NP) is used as dependent variable. Three independent variables were used. There is a positive correlation among all the independent variables i.e. the selling and marketing expense, dealers' commission, advertising expenses of the selected companies. There is no significant impact of Selling & Marketing Expenses on Net Profitability. However, other components of Selling and Marketing Expenses viz. dealers commission, advertising expenses have significant effect on the profitability of these firms.

Keywords: Profitability, Selling & Marketing Expenses, Telecom companies

1. Introduction

Industry are considered as the engine for the development of a country's economy. Different industries / sectors contribute in development of national economy of a country but their contribution differ in varying degrees. Most dominant role in economy of any country is played by Telecommunication sector as it is vital for growth of other sector. Evolution of technology and customers make these sector as most dynamic. Thus, there is a constant need keep pace with technological changes, companies need to continuously update and upgrade their technologies. This calls for to huge amount of capital investments in technology. At the other end there are customers who are difficult to acquire, serve and retain. To serve the customers better there is needs to deeper understanding of target customers and their expectations from the product, service and the company. So, all the companies keep a marketing and sales budget to acquire new customers and retain the current customers. But it comes with an enormous cost. Hence, the efficacy of Sales & Marketing expenses in making

a business profitable has always been debated and discussed. There are many sub components of Sales & Marketing expenses. The components which are a part of our study are dealers' commission, advertising expenses and salary, wages, & employee benefits. Profitability is very important for survival of business. Profitability is also understood because the profit earning capacity of an organization. It may also be called Return on Investment. As Profitability is that the primary goal of business, managers continuously strive to boost profitability. In India, there are ten listed Telecommunications companies out of which Airtel and Idea are selected.

2. Review of Literature

Many studies have been carried out to find out relationship between sales promotion, advertising, sponsorship, customer loyalty, customer retention, and marketing strategies with profitability.

Okyere, Agyapong and Nyarku, (Ghana, 2011) concluded that there is positive relationship between sales promotion and advertising budget with total sales. But they also found negative relationship between sponsorship and total sales. They found negative correlation between TV advertisement budgets with total sales. As per Halaoui, Smayra & Surssock, (Booz and Company, 2011), European operators reinvest up to 3 percent of revenues on customer retention efforts such as loyalty programs. It further says that the GCC operators might have to follow this and increase their marketing expenditures as their markets mature. Nsour, (Kingdom of Saudi Arabia, 2013) found that relationship marketing practices have a positive impact on profitability and customer loyalty of Saudi Telecom Company. Gautam, (India, 2013) found that Promotion possesses a significant key role in determining profitability and market success. On the contrary, the relationship between promotion consideration and business performance is significant, but the relationship is negative (Gbolagade, Adesola, Oyewale, Nigeria; 2013). In a study conducted by Oloko, Anene, Kiara, Kathambi, Mutulu (Kenya; 2014), they found that marketing plays a crucial role in enhancing a company's growth and performance in capturing new markets, retaining the market and promoting financial muscles in profits of an organization. In yet another research, Ayanda, Tunbosun (Nigeria, 2012) found a positive correlation between marketing strategy and organizational performance.

3. Need of the Study

There are many research works carried out establishing relationships between sales promotion, advertising, sponsorship, customer loyalty, customer retention, and marketing strategies with profitability. There is scarcity of research work bringing out relationship of Sales and Marketing Expenses with Profitability. Since any company would like to know the effectiveness of selling & marketing expenses on profitability, there arises a need for such a research. Moreover, this research might be of utmost importance to the management of telecommunications companies for making some crucial decisions that may increase the profitability of these firms. As per annual report Airtel and Idea Company, the total number of mobile subscriptions reached around 981.65 million by the end of 2017, with penetration rate of 117 %. Fixed telephone lines stood at 4.7 million, total number of mobile broadband subscriptions reached 14.27 million, and estimated number of Internet users in the country was 16.5 million, with a population penetration of 55.1%, by the end of 2016. Telecom services revenues in India have been steadily growing at a Compound Annual Growth Rate

(CAGR) of around 10%, increasing from about SR 20 billion (US \$5.3 billion) in 2001 to SR 75 billion (US \$20 billion) in 2016. Therefore, the sector is growing fast and holds significance in the economy of India. This underlines the need for study in this area.

4. Objective of the study

1. The main objective of the study is to identify the effect of selling and marketing expenses on profitability of selected telecom companies.
2. To trace out the relationship between selling and marketing expenses and profitability of the selected telecom companies.

Hypotheses:

H₀₁: There is no significant Impact of advertising effectiveness on efficiency of selected Telecom Companies.

5. Research Methodology:

Scope of the Study

The data has been collected from two Telecommunications companies for a period of ten years from 2006 to 2016 making a total of 20 firm years.

Data Collection

This research work is based on secondary data sources. The data was collected from the audited annual reports and financial statements of two Telecommunications companies. In order to find out the values of variables used in the research, Directors' Reports, Income Statement, Balance Sheet, Cash flow Statement and Notes to the Accounts were studied

Statistical Tools

To study Mean and Standard Deviation descriptive statistics were used. To find out the relationship among the variables Multiple Correlation analysis was used. Regression Analysis along with Two way ANOVA was performed to test the effectiveness of the variables in order to draw conclusion.

Selling & Marketing Expense Ratio (S M E) = Selling & Marketing Expense / Revenue × 100

Dealers Commission Expense Ratio (DCE) = Dealers Commission Expense / Revenue × 100

Advertising Expense Ratio (Advt. E) = Advertising Expenses / Revenue × 100

Pearson correlation is used to measure the degree of association between different variables. Ordinary Least Square (OLS) regression model is used to estimate the extent and direction of relationship between profitability and various components of selling and marketing expenses.

$NP = \alpha + \beta_1(SME) + \beta_2(DCE) + \beta_3(Advt. E) + \epsilon$

Where:

NP= Net profit

α = Intercept of the equation

SME= Selling & Marketing Expense

DCE=Dealers Commission Expense

Advt. E = Advertising Expense

ε = Error Term

Variables and Their Measurement

The efficiency of advertising effectiveness for Airtel and Idea are measured in terms of Profitability by taking Net profit Parameter. The Variables used in the research are categorised into two:

- Dependent Variable: Net Profit (NP) which is a measure of profitability of firms and is used as dependent variable.
- Independent Variable: Selling & Marketing Expense (SME), Dealers Commission Expense (DCE), and Advertising Expense (Advt. E) are used as independent variables.

For the purpose of testing this hypothesis, the researcher has taken Net profit as (Y) variable and Selling & Marketing Expense, Dealers Commission Expense and Advertising Expenses as (X) variable.

H₀₁: There is no significant Impact of advertising on efficiency of selected Telecom Companies.

H_{01a}: There is no significant Impact of Selling and Marketing expenses on the profitability of the selected Telecom Companies.

H_{01b}: There is no significant Impact of Advertising Expenses on the profitability of the selected Telecom Companies.

H_{01c}: There is no significant Impact of Dealers Commission on the profitability of the selected Telecom Companies.

The hypothesis (H₀₁) is tested with the help of two-way ANOVA with replication. This technique helps in investigating one factors which might interact with one another, and one can obtain more than one result for each combination of experimental treatments, Excel include functions that perform this analysis. The parameters used for the testing of this hypothesis are:

- NP= Net profit
- SME= Selling & Marketing Expense
- DCE= Dealers Commission Expense
- Advt.E = Advertising Expense

Descriptive Statistics			
	Mean	Std. Deviation	N
NP	4314.71	3610.13	20
SME	2319.17	887.99	20
ADT.E	506.69	138.78	20
DCE	1190.90	612.88	20

Table No.:1 **Descriptive Statistics from SPSS**

Table No. 1 depicts a summary of descriptive statistics of dependant and independent variables all (2) telecommunication companies listed on NSE for a period of ten years from 2007 to 2016 making a total of 20 years.

The table shows that the average value of net profitability (NP) is 4314.71 and the standard deviation is 3610.13. The standard deviation of 3610.13 implies that the value of profitability can increase or decrease by 3610.13 from its average. Selling and Marketing expenses as a part of revenue of the telecommunication companies is 2319.17 on an average and the standard deviation of this expense is 887.99. Average amount spent on dealers commission as a of total revenue is 1190.90 with a standard deviation of 612.88. Advertising expense show the relationship between amount spent of advertisement and amount generated on sales of telecommunication products. Mean of advertising expense is 506.69 with a standard deviation of 138.78.

Correlation				
	<i>Net Profit</i>	<i>SME.</i>	<i>ADE.</i>	<i>DCE.</i>
<i>Net Profit</i>	1			
<i>SME</i>	0.45042105	1		
<i>ADE.</i>	0.825950027	0.746820126	1	
<i>DCE.</i>	0.413532229	0.94010271	0.648528	1

Table No.: 2 Correlation from Excel

Table 2 depicts that there exist a negative correlation between dependent variable (Net Profit) and Independent variable (Selling and marketing expenses, Dealers commission, Advertising Expenses). Positive correlation between dependent and independent variable implies that increase in the expenses leads to increase in net profit and vice versa. Highest positive correlation (0.825) can be observed between net profitability (NP) and advertising expenses (ADE) of the telecommunication companies. Dealers commission expenses of these companies have a very low correlation coefficient (0.413) with Net Profit. It can be observed from the table 7.3 that there is a positive correlation coefficient among all the independent variable i.e. the selling and marketing expense, dealer's commission and advertising expenses.

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	-6230.30	1696.35	-3.67	0.002	-9826.41	-2634.2
SME	-3.41	1.69	-2.016	0.06	-7.00	0.17
ADE.	30.217	4.85	6.21	0.000	19.91	40.51
DCE.	2.65	2.14	1.23	0.23	-1.89	7.19

a. Dependent Variable: NP

Table: 3 Regressions from Excel

The Purpose of regression analysis is to find out the significant effect of various components of selling and marketing expenses on profitability of telecommunication firm operating in India. Table 3 reveals the result of regression analysis relating to net profit, selling and marketing expenses ratio, dealers commission expenses ratio and advertising expenses ratio.

<i>Regression Statistics</i>	
Multiple R	0.875
R Square	0.767
Adjusted R Square	0.723
Standard Error	1898.82
Observations	20

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	189939955.8	63313319	17.56	0.000
Residual	16	57688632.36	3605540		
Total	19	247628588.2			

Output generated from Excel

Table: 4 *Regression Statistics and ANOVA*

The value of the R^2 in the model is 0.875 which indicates that 87.5% of the variation in the dependent variable (Net Profitability) is explained by the variation in independent variable (Selling and marketing expenses, Dealers Commission, Advertising Expense). Since the value of R^2 is higher, we have better prediction of regression model. Common regression F- statistics (17.56) show that overall model is significant and Adjusted R square is 72.3%.

Based on the regression analysis, from the table 4 it can be seen that, there is no significant ($P > 0.05$) impact of selling and marketing expenses and Dealers commission on Net Profitability of the telecommunication companies operating in India. It is therefore H_{01a} and H_{01c} is accepted. However, the other component of selling and marketing expenses viz. advertising expenses have significant effect ($P < 0.05$) on the profitability of these firms. Hence the hypotheses H_{01b} was rejected.

Airtel	Net Profit	Selling and Marketing Expense	Advertising Expenditure	Dealer Commission Expense
2015-16	7,546.50	3,562.80	748.5	1990
2014-15	13,200.50	3,031.40	702.2	1760.4
2013-14	6,600.20	2,677.90	607.4	1577.9
2012-13	5,096.30	3,223.00	599.3	2110.8
2011-12	5,730.00	2,940.00	558.6	2064.3
2010-11	7,716.90	3,180.20	721.5	1613.7
2009-10	9,426.15	2,404.90	550.8	1154.3
2008-09	7,743.84	2,176.40	622.8864	632.6848
2007-08	6,244.19	1,813.53	566.4692	647.602
2006-07	4,033.23	733.75	402.4678	268.6657
Idea	Net Profit	Selling and Marketing Expense	Advertising Expenditure	Dealer Commission Expense
2015-16	2,616.66	3485.267	483.319	1904.032
2014-15	2,809.84	2996.776	492.913	1523.668
2013-14	1,689.31	2552.213	461.655	1156.301
2012-13	818.26	2585.993	453.561	1297.465
2011-12	576.54	2475.151	421.076	1284.571
2010-11	844.60	2027.591	384.838	940.146
2009-10	1,053.66	1,541.08	406.694	567.444
2008-09	1,001.21	1,241.14	426.571	428.726
2007-08	1,044.36	969.392	322.429	456.169
2006-07	502.06	764.947	200.62	439.265

Source: Compiled based on Annual Reports of Idea and Airtel

SUMMARY	Net Profit	SME	ADE.	DCE.	Total
Airtel					
Count	10.00	10.00	10.00	10.00	40.00
Sum	73337.81	25743.88	6080.12	13820.35	118982.16
Average	7333.78	2574.39	608.01	1382.04	2974.55
Variance	6594888.78	696876.43	10163.81	443752.14	8787369.60
Idea					
Count	10.00	10.00	10.00	10.00	40.00
Sum	12956.50	20639.55	4053.68	9997.79	47647.51
Average	1295.65	2063.96	405.37	999.78	1191.19
Variance	664384.37	823057.93	7683.49	268068.30	772733.45
Total					
Count	20.00	20.00	20.00	20.00	
Sum	86294.31	46383.43	10133.80	23818.14	
Average	4314.72	2319.17	506.69	1190.91	
Variance	13033083.59	788532.51	19260.54	375630.75	

Excel output

Table No. 7						
ANOVA						
Source of Variation	SS	Df	MS	F	P-value	F crit
Sample	63607906.02	1	63607906	53.51	0.000	3.97
Columns	166338284.5	3	55446095	46.64	0.000	2.73
Interaction	120925857.1	3	40308619	33.91	0.000	2.73
Within	85579877.28	72	1188609			
Total	436451924.9	79				

Excel output

The second hypothesis (**H₀₁**) of the study is tested with the help of **Two-Way ANOVA** with replication calculated with the assistance of **Microsoft Excel**. With the help of this test, the impact between the factors and the treatments given to these factors is analysed. The first part of this test reveals whether the means of observation grouped by one factor are same, the second part reveals whether the means of observation grouped by other factors are same and the third part reveals where there is any interaction between the three factors. It is clear from the above test that null hypothesis (**H₀₁**) is rejected as the value of **F calculated** in all the three cases is greater than **F critical (F calculated > F Critical)**. This is further signified by **P-value** which is less than **alpha value or significance level (p = 0.00 < α = 0.05)**. Hence it is worth to conclude that there is significant Impact of advertising on efficiency of selected Telecom Companies.

8. Conclusion & Direction of Further Research

Existence of a company depend largely on it expenses to revenue generation leading to profitability. Companies think twice before arriving at a figure of selling and marketing expenses as risks are very high. An effective use of selling and marketing expenses would contribute enormously towards the profitability. It can be concluded that there is a positive impact of selling and marketing expenses on Profitability and we can conclude that these expenses lead to profitability based on our findings. Future research can be carried out on the same topic in other countries or in some other industry.

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