

Impact of Operating and Non-Operating Expenses on Profitability of Air India and Indigo: A Comparative Study

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Abstract: 'Air India' – It has been considering as the India's leading airline company since independence. But since last decade everything is going wrong in Air India's context. Even recently emerged airline companies are capturing market share and reaping profits by facilitating creative products and services by adopting strategies from global leading airline companies. In this article we are going to analyse the impact of operating and non-operating expenses on overall profitability of Air India as a comparative study with IndiGo Airline Company. For the purpose statistical tools like mean, standard deviation and coefficient of variation are used. The results have stated that standard deviation of total revenue expenditure in Air India is lower than in IndiGo airline. Air India is not in a condition to expand its business operations due to huge financial obligations. From ratio analysis point of view, it is clear that all the ratios like ROI, ROE, ROIC and profit margin ratios are too low than in case of IndiGo airline. Due to huge expenses of big organizational management, financial payments and uncontrollable administration expenses Air India has fallen into deep obligation of indebtedness and hence forced for privatisation.

Keywords: Revenue expenditure, operating expenses, non-operating expenses, return on investment, return on equity, operating income.

I. INTRODUCTION

A. History & status of Air India^[1]

Air India was started as 'Tata Air Services' and renamed as 'Tata Airlines' by J.R.D. Tata in the year 1932. In the first year of business operations, Tata Airlines had made a profit of Rs.0.06 million. After World War II, regular commercial service was restored in India and Tata Airlines became a public limited company on 29 July 1946 under the name 'Air India'. Air India joined the Star Alliance in 2014.

Privatisation of Air India is in stream line

On 28 June 2017, the Government of India announced the privatisation of Air India. A committee has been set up to start the process.

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B. History & Status of 'IndiGo' airlines

IndiGo airline was founded in 2005 and business operations have been commenced from 4th August, 2006. Its parent company is Interglobe Aviation Limited, headquartered at Gurgaon. Rakesh Agarwal and Rahul Bhatia were the co-founders of IndiGo airlines. In January 2013, IndiGo was crowned as the second-fastest-growing low-cost carrier in Asia behind Indonesian airline Lion Air. In February 2013, following the announcement of the civil aviation ministry that it would allow IndiGo to take delivery of only five aircraft that year, the airline planned to introduce low-cost regional flights by setting up a subsidiary. In August 2015, IndiGo placed an order of 250 Airbus A320neo aircraft worth \$27 billion, making it the largest single order ever in Airbus history. IndiGo announced a ₹ 32 billion (US\$450 million) initial public offering on 19 October 2015 which opened on 27 October 2015.

C. Introduction about Revenue Expenditure

The expenditure fall under the head of income statement (profit & loss account) is called as revenue expenditure. It is again subdivided into operating and non-operating expenses. The total revenue expenditure is influenced by capital structure decisions. Based on the composition of capital structure, the future income statement expenses will be decided. The expenses which directly involve in activities of the firm are called as operating expenses. Whereas the expenses which do not consider firm's condition are termed as non-operating expenses.

Objective of the study

To find the impact of revenue expenditure (operating & non-operating expenses) on overall profitability of Air India by comparing with IndiGo airline.

II. REVIEW OF LITERATURE

Dr Andrew Cook and Graham Tanner has subdivided operating expenses into hard costs and soft costs. They are classified as denied boarding, flight cancellation and delay departures. When these situations arise the passengers are apologised in the form of soft costs like meal vouchers, tax-free vouchers and phone cards and even in the form of hard costs like rerouting the journey, ticket reimbursements and compensation.^[3]

Hannah Kiaritha, Gekara Mouni and Joseph Mung'atu, from their study about Kenya banking sector have found that extent of operating cost influences the financial performance of banks.^[4]

Humeyra Adiguzelhas

revealed that operating profits are important to the financial statement users who

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wish to know the operational ability of the firm alone. She has also expressed that in decreasing income businesses, the shifting towards accrual operating expenses as non-operating expenses is quite common at these days. She stated that inverse relationship exists between operating profits and non-operating expenses if the managers manage accruals well.^[5]

John D. Rea, Brian K. Reid and Kimberlee W. Millar have stated that operating expenses ratios generally declined with assets growth. They have also stated that large amount of owner's capital in total capital directs toward minimum expenses ratios.^[6]

John H. Bodfish in his presentation has narrated that the size of the firm in terms of assets influences the operating ratios. As the firm size is expands, effects inversely on the total expenses ratio, positively effects on gross profit ratio.^[7]

Joy Don Baker, RN has narrated that total operating expenditure is subdivided into fixed operating and variable operating expenditure. The expenses of salaries, electrical expenses are of fixed operating in nature while raw material expenditure belongs to variable operating expenditure. The operating expenses budget is influenced by the way it is to be made by zero-based budget or cost plus budget. Here inflation aspect plays very important role while estimating the future exact requirement.^[8]

LaxmiKoju, Ram Koju and Shouyang Wang has stated that huge capital requirements and huge firm size do not reduce the default risk of returns instead off high profitability and broad income diversification policies minimize the default risk.^[9]

Maria Berrittella, Luigi La Franca and PietroZito in their study has tried to rank the operating costs in case of low cost and full service airlines. They have found that the rentals for new airbuses, other rentals, office equipment and other supplies costs are prime costs for both carriers. The next important costs are hanger costs for full service airlines, due to the reason of large number of aircrafts. Low cost airlines have higher workforce payment burdens.^[10]

S. Hussain in his research about different commercial banks in India has found that Indian commercial banks with lower cost to income ratio are showing more profitability. The size and proprietorship variations influence a lot on cost to income ratio.^[11]

Vanessa Balshaw and David Lontin their research in New Zealand have found from the words of Bradbury (1992) that larger companies more unspecified financial information that smaller companies. The conflict between the gains and losses directs not to provide clear cut information in financial statements. But detailed disclosure of such information is mandatory to come to realistic state of the firm.^[12]

III. ANALYSIS & INTERPRETATION

A. Analysis of Revenue expenditure of Air India

From the Table 1, it is clear that the total revenue expenditure of Air India is classified into the components of expenses of aircraft fuel & oil, payments & benefits to employees, other operating expenses, depreciation, other expenses, prior-period adjustments and financial and miscellaneous expenses.

Table 1: Analysis of Revenue expenditure of Air India from 2011-12 to 2016-17(Rs. in million)

Details		Aircraft Fuel & Oil	Payments & Benefits to employees	Other Operation Expenses	Depreciation Expenses	Other Expenses	Prior Period Adjustments	Total Operating expenses	Financial & miscellaneous expenses	Total expenses
2011-12	Rs.	85116.70	35666.50	43191.6	15968.3	16942.6	1254.2	198139.90	36454.90	234594.80
	%	36.28	15.20	18.41	6.81	7.23	0.53	84.46	15.54	100.00
2012-13	Rs.	83629.60	32547.30	48873.40	17003.70	15471.40	824.50	198349.90	38689.60	237039.50
	%	35.28	13.73	20.62	7.17	6.53	0.35	83.68	16.32	100.00
2013-14	Rs.	94407.10	31521.90	63303.20	18995.70	16333.70	-1033.10	223528.50	40713.40	264241.90
	%	35.73	11.93	23.95	7.19	6.18	-0.39	84.59	15.41	100.00
2014-15	Rs.	84491.40	24666.40	80791.80	19207.40	14493.40	728.40	224378.80	40282.80	264661.60
	%	31.92	9.32	30.53	7.26	5.48	0.27	84.78	15.22	100.00
2015-16	Rs.	65718.90	41618.60	85122.20	21855.90	18510.80	-405.00	232421.40	47179.40	279600.80
	%	23.50	14.88	30.44	7.82	6.63	-0.14	83.13	16.87	100.00
2016-17	Rs.	63375.80	25578.30	98059.10	16095.10	16405.50	-3897.90	215615.90	42358.70	257974.60
	%	24.57	9.91	38.01	6.24	6.36	-1.51	83.58	16.42	100.00
Mean		79456.58	31933.17	69890.22	18187.68	16359.57	-421.48	215405.73	40946.47	256352.20
Std. Dev.		12211.75	6347.94	21643.73	2273.98	1359.55	1904.86	14318.40	3649.83	17440.11
CV		15.37	19.88	30.97	12.50	8.31	-451.94	6.65	8.91	6.80

Source: Compiled and calculated from annual reports of Air India^[13]

From the Table 1, it can be notified that expenditure on aircraft fuel & oil was stable from the year 2011-12 to 2013-14 and observed at Rs.85116.7 million to Rs.94407.1

million with contribution of around 35% to overall expenditure in those years. From the years 2014-15 up to last year of analysis the

amount spent was decreasing due to minimising the entire operations and selling of aircrafts to downsize the overburden of external financial obligations. Finally in the year 2016-17, this expenditure has reached to Rs.63375 million with decreasing contribution of 24.57% to overall revenue expenditure in the year 2016-17. It is below the aggregate value of entire study period, i.e., Rs.79456.58 million.

The next item of Table 1 is payments & benefits to employees. In the year 2011-12 this expenditure was at Rs.35666.50 million with 15.20% of contribution to total revenue expenses. By focusing on lay-off, retrenchment, employee voluntary retirement strategies Air India has focused on downsizing the expenditure on employee considerations. Finally in the year 2016-17, it has reached to Rs.25578.30 million. It is below the mean value of entire study period, i.e., Rs.31933.17 million.

The next item of revenue expenditure of Air India is other operation expenses include administration expenses include insurance, materials consumed (aircraft), outside repairs (aircraft), navigation, housing, landing, parking, hire of aircraft, handling charges, passenger amenities, booking agency commission and communication charges.

From the Table 1, it can be notified that the other operating expenses were at Rs.43191.60 million with 18.41% contribution to overall revenue expenditure. Gradually this expenditure was increased and finally in 2016-17, reached to Rs.98059.10 million, with increased contribution of 38.01% to overall expenditure.

The next item of revenue expenditure is depreciation charge. By the orders from Ministry of Corporate Affairs vide letter No.45/4/2008-CL-111 dated 25.05.2011, depreciation charged on new fleet of airbus 319, 320, 321, B-777 & B-787 aircrafts has been charged considering the economic life of those aircraft as 20 years as these aircrafts are new generation/ state of art new technology aircrafts which is lower than the rate prescribed in Schedule XIV to the Companies Act, 1956.

From the Table 1, it can be notified that the depreciation amount was at Rs.15968.30 million with contribution of 6.81% to overall revenue expenditure in the year 2011-12. The depreciation amount was gradually increased and reached in the year 2015-16 to Rs.21855.90 million with contribution of 7.82% to overall revenue expenditure. Again in the year 2016-17, the depreciation amount has reached to Rs.16095.10 million with 6.24% to overall revenue

B. Analysis of Revenue expenditure of IndiGo airline

From the Table 2, it is clear that total revenue expenditure in IndiGo airline is divided into expenses like aircraft fuel, employee benefits, depreciation, purchases of stock in trade, other expenses and finance costs. It can be notified that as fleet expands the expenditure on aircraft fuel was increased from Rs.28735.91 million in 2011-12 to Rs.63415.13 million in 2016-17. The very interested point to observe is that the contribution of aircraft fuel was decreased from 50.82% in 2011-12 to 36.82% in 2016-17. To fulfil the demand of market share, by hiring the new aircraft engines

expenditure. It is below the average value of entire study period i.e., Rs.18187.68 million.

The next item of revenue expenditure of Air India is other expenses, include travelling expenses (crew & others), rent, rates & taxes, repairs (buildings & others), hire of transport, electricity & heating charges, water charges, publicity & sales promotion, printing & stationary, legal charges, auditor's remuneration & expenses, provision for bad & doubtful receivables and advances, provision for obsolescence, provision for inventory repairs, expenses on block seat arrangements, exchange variation, loss on sale of fixed assets, loss on sale of inventory and miscellaneous expenses.

From the Table 1, it is clear that in the year 2011-12, the expenditure on other expenses was at Rs.16942.60 million with contribution of 7.23 % to total revenue expenditure. Finally in the year 2016-17, this expenditure has reached to Rs.16405.50 million with 6.36% contribution to total revenue expenditure. It is almost nearer to the aggregate value of entire study period, i.e., Rs.16359.57 million.

From the Table 1, it is clear that the next item of revenue expenditure of Air India is expenses on prior period adjustments. Due to the reason of currency exchange variations and insurance dues and outstanding employee benefits etc.. In the year 2011-12, the value of this expenditure was observed at Rs.1254.20 million with 0.53% contribution to total revenue expenditure. This value is finally reached to Rs.-3897.90 million with -1.51% to overall revenue expenditure in the year 2016-17. This is too high than aggregate of entire study period, i.e., Rs.-421.48 million.

The final item of revenue expenditure is financial & miscellaneous expenses. This include bank charges, interest payments for term loans and mortgage loans etc. From the Table 1, it is clear that this expenditure was increased from Rs.36454.90 million (15.54% contribution) in 2011-12 to Rs.47179.40 (16.87% contribution) then decreased to Rs.42358.70 million with contribution of 16.42% to overall expenditure in 2016-17. This is little higher than aggregate Rs.40946.47 million.

From the standard deviation's point of view, it is higher in case of other operation expenses and least in case of other expenses. Coefficient of variation of prior period adjustments is negative (-451.94%), next highest coefficient of variation is with the operation expenses (30.97%). The least coefficient of variation is with other expenses (8.31%). and by expansion in administration expenses (other expenses) the contribution of components other than aircraft fuel has expanded. Hence the contribution of aircraft fuel decreased automatically.

In Table 2, the next component of revenue expenditure is employee benefits. This expenditure was increased from Rs.5218.07 million in 2011-12 to Rs.20481.90 million. The contribution is at steady rate which expands from 9.23% in 2011-12 to 11.89% in 2016-17. By investigation it is clear that as business expands the workforce and their amenities given by IndiGo

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airline also expands. The airline has given much encouragement to their employee force as they are the key factor of success for the growth and expansion of the business.

In Table 2, the next item of revenue expenditure is depreciation on fixed assets. As the business expands, IndiaGo airline has purchased new fleet and started its business network assets around India. Hence depreciation amount also increased from Rs.665.23 million with contribution of 1.18% to overall revenue expenditure in the year 2011-12. It was increased up to 2015-16 and reached to Rs.5030.79 million with increased contribution of 3.68% to total revenue expenditure. In the year 2016-17 the depreciation amount was decreased to Rs.4572.53 million with decreased contribution to 2.65% to total revenue expenditure.

Depreciation is calculated on cost of items of property, plant and equipment less their estimated residual values and is charged to Statement of Profit and Loss. Depreciation on property, plant and equipment, except aircraft (including

aircraft taken on finance lease) and spare engine and non-aircraft equipment, leasehold improvements - aircraft and leasehold improvements, is provided on written down value method at the rates and in the manner provided in Schedule II of the Companies Act, 2013. Depreciation on aircraft (including aircraft taken on finance lease) and spare engine and non-aircraft equipment is provided on the straight line method at the rates and in the manner prescribed in Schedule II of the Companies Act, 2013.

The next item of revenue expenditure of IndiGo airline is purchase of stock in trade. The purchases of stock in trade refers to all the purchases of finished goods that the company buy towards conducting its business. From Table 2, this expenditure was at Rs.339.74 million in the year 2011-12 with contribution of 0.60% to total revenue expenditure. As business progresses, this expenditure also expanded and reached in the year 2016-17 to Rs.1235.38 million with contribution of 0.72% to total revenue expenditure.

Table 2: Statement of Revenue expenditure of IndiGo Airline during 2011-12 to 2016-17 (Rs. in million)

Details		Aircraft Fuel Expenses	Employee Benefits	Depreciation	Purchase of Stock in trade	Aircraft Engine Rentals	Other Expenses	Total Operating expenses	Finance Costs	Total Expenses
2011-12	Rs.	28735.91	5218.07	665.23	339.74	8007.15	13061.28	56027.38	514.27	56541.65
	%	50.82	9.23	1.18	0.60	14.16	23.10	99.09	0.91	100.00
2012-13	Rs.	43126.26	6972.33	856.20	541.29	13561.48	19015.34	84072.90	578.01	84650.91
	%	50.95	8.24	1.01	0.64	16.02	22.46	99.32	0.68	100.00
2013-14	Rs.	55133.50	9289.40	2260.08	600.33	16703.14	24480.46	108466.91	1225.77	109692.68
	%	50.26	8.47	2.06	0.55	15.23	22.32	98.89	1.12	100.01
2014-15	Rs.	57484.86	11886.91	3022.14	785.38	19522.38	30876.97	123578.64	1155.32	124733.96
	%	46.09	9.53	2.42	0.63	15.65	24.75	99.07	0.93	100.00
2015-16	Rs.	47793.24	17899.23	5030.79	1136.50	25067.63	38393.71	135321.10	1348.53	136669.63
	%	34.97	13.10	3.68	0.83	18.34	28.09	99.01	0.99	100.00
2016-17	Rs.	63415.13	20481.90	4572.53	1235.38	31253.73	47985.83	168944.50	3307.80	172252.30
	%	36.82	11.89	2.65	0.72	18.14	27.86	98.08	1.92	100.00
Mean		49281.48	11957.97	2734.50	773.10	19019.25	28968.93	112735.24	1354.95	114090.19
Std. Dev.		12357.38	6088.76	1831.34	351.37	8281.75	12856.00	39604.83	1017.90	40506.29
CV		25.08	50.92	66.97	45.45	43.54	44.38	35.13	75.12	35.50

Source: Compiled and calculated from annual reports of IndiGoairline^[14]

The next item of Table 2 is aircraft engine rentals. This is the rental paid by the IndiGo airline by hiring new and specialised aircrafts in specified cases. These rents are generally two types – wet and dry rentals. Wet rentals include rent of aircraft plus oil charges and dry rents are those which exclude fuel costs. In 2011-12, this expenditure was at Rs.8007.15 million with 14.16% of contribution to total revenue expenditure. In the year 2016-17, this expenditure has reached to Rs.31253.73 million with contribution of 18.14% to total revenue expenditure.

The next item of Table 2 is other expenses (administration expenses). In the year 2011-12, this expenditure was at Rs.13061.28 million with contribution of 23.10% to total revenue expenditure. Gradually this expenditure was increased and reached to Rs.47985.83 million with contribution of 27.86% to total revenue expenditure.

The next item of Table 2 is finance costs. In the year 2011-12, this expenditure was at Rs.514.27 million with nominal contribution (0.91%) to overall revenue expenditure. To reap more benefits from capital structure composition and to increase financial leverage, IndiGo airline has increased external borrowings gradually and hence repayment of term loans and interest payments also increased simultaneously. In the year 2016-17, this expenditure has reached to Rs.3307.80 million.

From the Table 2, it is clear that the total revenue expenditure also increased from the year 2011-12 to 2016-17. The total expenditure has increased almost three times from 2011-12 to 2016-17. From standard

deviation's point of view, the other expenses have highest standard deviation (12856.00) and least standard deviation is with purchase of stock in trade (351.37). From coefficient of

variation's point of view, the fiancé costs have highest value (75.12) and the least coefficient of variation is with aircraft fuel expenses.

C. Analysis and interpretation though ratio analysis of Air India and IndiGo airlines

Table 3: Statement showing comparison of different ratios

Year	Air India				IndiGo			
	ROI	ROE	ROIC%	Net Profit Margin%	ROI	ROE	ROIC%	Net Profit Margin%
2011-12	-91.96	-226.00	-9.36	-51.38	2.06	4.16	2.06	2.24
2012-13	-90.40	-58.75	-3.45	-34.16	16.82	25.65	16.23	8.32
2013-14	-84.01	-43.77	-4.64	-32.89	5.46	10.32	5.04	2.77
2014-15	-82.92	-34.11	-3.80	-27.02	17.25	42.48	17.05	9.11
2015-16	1.26	-17.85	-8.35	-18.24	24.89	5.51	22.27	11.92
2016-17	-3.33	-21.55	-3.33	-25.99	16.39	4.59	13.98	8.56

Source: Compiled and calculated from annual reports of Air India & IndiGo

Table 4: statement showing year wise inflation rate in India

	<u>CPI</u> <u>India</u> <u>2012</u>	<u>CPI</u> <u>India</u> <u>2013</u>	<u>CPI</u> <u>India</u> <u>2014</u>	<u>CPI</u> <u>India</u> <u>2015</u>	<u>CPI</u> <u>India</u> <u>2016</u>	<u>CPI</u> <u>India</u> <u>2017</u>
Inflation	4.00%	2.23%	6.32%	5.86%	9.30%	11.17%

[15] Source: www.inflation.eu CPI# consumer price index

Return on Investment (ROI): As the inflation rate is more than 2% throughout the study period, the always preferable ROI is 7% or more. It is the ratio of earnings before interest and tax and total capital employed. From the Table 3, in case of Air India, ROI is below the ideal mark. While in case of IndiGo, except in the years 2011-12 and 2013-14, ROI is more than the ideal mark.

Return on Equity (ROE): It is the ratio of profit after interest and tax and equity share capital. The ideal ROE in case of companies is 15-20%. From the Table 3, it is clear that in case of Air India, ROE is far below the standard throughout the study period. While in case of IndiGo, in the years 2012-13, 2013-14 and 2014-15 ROE is more than the ideal range.

Return on Invested Capital (ROIC): it is the ratio of earnings before interest after tax to capital employed. The ideal ROIC is 15-20%. From the Table 3, it is clear that ROIC is in negative trend throughout analysis period in case of Air India. While in case of IndiGo airline, this ratio is good in the years 2012-13, 2014-15 and 2015-16.

Net Profit Margin ratio: It is the ratio of net profit and total revenue. For a high volume and high competitive business, 4% is the ideal ratio. From the Table3, it is clear that net profit margin ratio is in negative condition throughout the study period in case of Air India. While in case of IndiGo airline, except in the years 2011-12 and 2013-14, net profit margin ratios is far good than ideal mark.

IV. FINDINGS & SUGGESTIONS

. From the information gathered from above analysis via statistical tools and ratios, it is clear	To overcome these obligations, the Union Government has taken the decision of privatisation
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that the leader in Indian airline industry - Air India's financial status is not in a good condition. Air India is a huge company in Indian skyway industry. Its huge size is a drawback to recover from its pitfalls. Air India has sold its big flights to reduce its borrowing burdens and has followed the sale and lease back strategy to maintain its business. But due to the reason of huge competition among the competitors Air India has lost its pace of competitiveness	in the year 2017. By implementing some hard rock decisions like seeking the financial support entirely from Government of India, reducing the workforce, focussing on price cutting strategies to retain the lost business, minimising the fixed assets as much as possible and starting the business from zero-based budget are the some remedies for bringing back the business on track
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