
A study on the effect of privatization on Break-even point in Aviation Sector

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ABSTRACT

Break-even is the point where business earns neither a profit nor a loss. The financial method of calculating break-even, called value added or break-even analysis is used to assess the feasibility of a project. Break-even not only accounts for all expenses, it also includes the opportunity costs of the capital required for future project. It is a easy tool for profit planning. The Indian Aviation Industry is among the world's fastest upward industries. Previously owned by the government, the aviation service sector in India is now privately owned with full service airways and reasonable carrier. Almost 75% of the domestic aviation sector consists of the private airlines. The tools used for the analysis are Profit volume ratio, Contribution and Break-even point. The privatization of major airports leads to modernization and development of airport. The effect of privatization results in the increase in the percentage of the Breakeven point by comparing with the before and after privatization in the Aviation sector.

Key word: Privatization, Breakeven point, Revenue

INTRODUCTION

Break-even point

Break-even is the point where business earns neither a profit nor a loss. The financial method of calculating break-even, called value added or break-even analysis is used to assess the feasibility of a project. Break-even not only accounts for all expenses, it also includes the opportunity costs of the capital required for future project.

The break-even point (BEP) or break-even level represents the sales amount in either unit (quantity) or revenue (sales) terms that is required to cover total costs, consisting of both fixed and variable costs to the company. Total profit at the break-even point is zero. This means that the selling price of the product should be higher of what the corporate procured the product or its parts for them to cover the initial price they paid (variable costs). Once they surpass the break-even value, the corporate will begin creating a profit.

Privatization

Privatization refers to the shifting of governmental functions, responsibilities, and generally ownership, in whole or partly, to the private sector. With respect to airports, “privatization” can take many forms up to and including the transfer of an entire airport to private operation and/or ownership. In most cases of airport privatization fall into the category of “partial privatization”; full privatization. A view to accelerate the integrated development, expansion and modernization of the operational, terminal and cargo facilities at the airports in the country conforming to international standards. Today, Aviation service sector is a major airport operator managing several airports across the country and also entrusted with the sovereign function of providing air traffic services in India. To enhance airport infrastructure in India, modernization of existing airport infrastructure in metro and non-metro cities and construction of Greenfield airports were contemplated.

Revenue

Revenue may be a crucial a part of financial plan analysis. The company’s performance is measured to the extent to that its asset inflows (revenues) compare with its asset outflows (expenses).In accounting, revenue is that the financial gain that a business has from

its traditional business

activities, typically from the sale of products and services to customers. Revenue is additionally said as sales or turnover. Some firms receive revenue from interest, royalties, or other fees. It's financial gain received by a company within the kind of money or money equivalents. Sales revenue or revenues is financial gain received from selling product or services over a period of your time.

Expenses

Expenses contains a very specific which suggests it's an outflow of cash or different valuable assets from a personal or company to a unique person or company. This outflow of cash is typically one aspect of a trade for product or services that have equal or higher current or future value to the customer than to the seller. Technically, an expense is an occasion within that an asset is utilized up or a liability is incurred.

Variable cost

A variable cost is a corporate expense that varies with production output. Variable costs are those costs that vary depending on a company's production volume; they rise as production increases and fall as production

decreases. Variable costs differ from fixed costs such as rent, advertising, insurance and office supplies, which tend to remain the same regardless of production output. Fixed costs and variable costs comprise total cost. Variable costs can include direct material costs or direct labour costs necessary to complete a certain project. For example, a company may have variable costs associated with the packaging of one of its products. As the company moves more of this product, the costs for packaging will increase. Conversely, when fewer of these products are sold the costs for packaging will consequently decrease.

Fixed cost:

A fixed cost is a cost that does not change with an increase or decrease in the amount of goods or services produced or sold. Fixed costs are expenses that have to be paid by a company, independent of any business activity. It is one of the two components of the total cost of running a business, along with variable cost. The examples of fixed cost are finance cost like interest on borrowings irrespective of the sales that happened it is necessary to pay interest for the money the organization borrowed for the business use.

NEED FOR THE STUDY

The study of Break-even Analysis helps the organization to know their present scenario of business activities. This study helps the Aviation service sector to determine the prices for the services they offer. The privatization of Aviation service sector and its impact required to be analysed for the formation of further strategy for the business.

OBJECTIVE

- To determine the effect of privatization on Break even analysis in Aviation Service Sector.
- To know where the cost and income meets in order to have no loss no profit.
- To determine the contribution of Aviation Service sector.

LITERATURE REVIEW

Ndaliman.B Mohammed and Bala.CKastina (2007) said that a five-year expenditure profile of a company, 'Buni Bricks and Blocks Industry Nigeria Ltd.', was studied alongside its incomes for the same period. The objective is to determine the cost / revenue interactions on break-even charts. These charts were obtained for the five years studied. From the facts discovered include: the

sales revenue and total value weren't linear, 2 or additional break-even points were found to exist, some prices fall into each fixed and variable prices, and on the far side bound optimum production levels, sales revenue decreases sharply and total price also will increase.

Ndaliman Mohammed B and Suleiman.U.Y stated that the break-even concept is based at the truth that there may be a minimum manufacturing stage at which a task neither make earnings nor loss. This degree is known as the destroy-even factor (BEP). The whole price of operations is equal to the total sales earned at this factor. The overall fee is made from fixed and variable fees. In this paper the constant fee issue is expressed in terms of the equal uniform annual cost. The model equations developed had been utilized in a case have a look at to research the numerous components of fixed price, and also to generate the developments of total prices, from which extraordinary BEP values had been received through varying some variables. The results of analysis indicate that BEP has direct relationship with interest quotes and inverse courting with salvage values.

Demographic, clinical, and financial statistics have been amassed retrospectively for 446 patients treated in a quick-music

application all through June 1993. The short-tune application is located in the confines of the emergency remedy and trauma center at a 1,050-mattress tertiary care Midwestern coaching medical institution and gives pressing remedy to minimally unwell patients. A financial break-even point changed into carried out to determine the point where in the program generated sufficient sales to cover its total variable as well as fixed costs, both direct and oblique.

Hooper.P (2002) said that it has been claimed that Asia lags behind the remainder of the globe within the privatization of airports. At an equivalent time, the shipping sector has been growing quickly and this has placed huge pressure on aerodrome infrastructure. This paper reviews matters and finds that the non-public sector is concerned extensively with new airports and therefore the upgrading of existing airports in Asia. Though the models wont to accommodate the non-public sector seem just like those used elsewhere, governments in Asia have preserved majority management in each case. Despite the actual fact that some governments say that potency is very important to them, the foremost common and necessary motive in "privatization" in Asia is to mobilize a brand new supply of

finance. Airports stay high on the agenda of public policy. Governments square measure involved concerning abuse of monopoly powers and that they wish to cross-subsidize regional airports, however they lack the institutional strengths to control effectively.

By holding majority management, however, governments risk losing the potency advantages of privatization. The paper explores the explanations why airports square measure such troublesome cases to wear down and concludes that there's a larger would like than ever to be able to compare the performances of airports.

Ali, A., Krapfel, R., & LaBahn, D. (1995) Investigated the relative effect of product innovation and entry method on cycle time and initial marketplace performance of small firms. The usage of a sample of seventy-three small manufacturing companies, find that quicker product development is related to shorter break-even point. New product development time, or cycle time, has come to be an essential aggressive variable, particularly for small high-tech production corporations. The enterprise press is full of examples about large companies which have efficiently decreased cycle time. Their outcomes also suggest that those corporations are accomplishing shorter cycle time not by

using sacrificing product best, however by maintaining the technical content material of the product easy. Past research has not taken under consideration this relationship, and this could be one of the motives why researchers have often suggested conflicting effect of access method on market performance.

Pierluigi Morano, Francesco Tajani, (2007), in this work an evaluation model to support Public Administration decisions in planning urban strategies that aim to involve private investors has been developed. Considering the unfavourable economic climate, any territorial transformation can be realized only if the public needs meet the financial feasibility of the initiative. For this reason the model allows to define

- The maximum amount of subsidized housing to be realized by the private investor;
- The administered selling price to be applied. The model has been developed translating in the field of urban planning the Break-Even Analysis, a tool borrowed from the marginal economic theory. It is applied to a real case study concerning the urban renewal of an unused area located in a city in southern Italy. The outputs obtained confirm the

potentialities and the user-friendly configuration of the model.

Lesure, J. D. (1983) stated that the break-even analysis is a crucial device of monetary control. In this article author able to describe an idea and foundation for analysis this is pretty unique from the usual approach. So that you can decide the portion of every rate that is constant and the element that is variable, that's the idea for calculating the break-even factor, we will use linear regression evaluation, a way based upon the connection among variables. Designated monthly operating statements are required for an entire departmental analysis the use of this method; but, for the reason of this article author taken a shortcut and used best month-to-month sales and working expenses. The amounts are taken from the month-to-month operating statements of a 352-room suburban hotel.

Marek Potkany, Lucia Krajcirova(2015) Managerial decision-making is closely associated with the imparting of primary economic transactions records and with their effect on the financial scenario and financial consequences of the business activity. In today's business world basic tools and methods of every manager includes, besides budgets and calculations, proper utilization of information obtained from the managerial accounting. All managerial decision is original

and specific is also because of its information support. The facts requirements therefore passively relate to the character of decision-making tasks and to their basic classification. The elementary decision-making tasks is classified in terms of time provides division into short-term and long-term decision-making tasks. It provides detailed information for the similar product-type and capacity-type tasks associated with the initial conditions of problem solution. The objective of this article is to analyse the case study, the relevance and impact of absolute and relative contribution margin indicator for quantification of the volume of performances to achieve the break-even point and required profit in non-homogeneous production.

Akitsu Oe, Hitoshi Mitsuhashi (2013) this studies have found that the role of founders' collective reports is paramount in resolving troubles inherent in start-ups, others have didn't substantiate this. This study claims that this incongruence is as a result of a failure to think about structure processes within which founders' experiences translate into structure assets through info distribution and interpretation. Acquiring and interpreting the facts from the Panel look at of Entrepreneurial Dynamics, this have a look at demonstrates that start-ups attain their break-even point faster when their founders have had

paintings experience inside the comparable enterprise, and that this consequence turns into more potent while those companies commit extra assets to information distribution and interpretation.

John E. Murdock, Ceib Phillips, Richard Beane, Rocio Quinonez, (2010) Access to dentistry services for kids listed in health care is proscribed nationwide. Orthodontists cite low fee compensation as a major barrier to health care participation. This study helps to examine, under a specific set of practice assumptions, the simulated effect on profitability of treating patients covered by Medicaid in orthodontic practices in North Carolina by using a break-even analysis for the 2005 fiscal year.

Break-even analysis could be a basic economic conception applicable to dental

medicine practices. beneath the actual things of this study, the addition of fifty of patients registered in Medicaid among the energetic patient pool had marginal impact on the money damage-even issue and, assumptive that the break-even issue had been reached, became unlikely to have a bad financial impact on the exercise.

RESEARCH METHODOLOGY

Descriptive research design is used in this study. The secondary data is collected from the financial statement for the period before the privatization of aviation sector 2006-2007 and After the privatization for the period 2014-15 to 2015-2016. The tools used for analysis are Profit volume ratio, Contribution and Break-even point.

DATA ANALYSIS AND INTERPRETATION

Table No.1 Analysis of Break Point

TOOLS	2006-2007 (Rs. In crores)	2014-2015 (Rs. In crores)	2015-2016 (Rs. In crores)
P/V Ratio	0.8270	0.8887	0.8931
Break-Even Point	3726.55	6144.30	6684.70
Profit	Nil	2791.41	3697.35

From the above table it is clearly shown that in the initial stage of privatization there is no profit no loss phase the organization faced. In the financial year 2014-15 the profit earned was Rs.2791.41 and in the next consecutive financial year 2015-2016 the profit earned by the organization is about 3697.35 crores which is the highest profit. The airport leasing revenue constitutes the major amount of profits.

In the year 2006 the Aviation Sector has entered into the Privatization of major airports Mumbai and Delhi. The civil aviation authority of India exceeded over these airports to personal companies for the cause of modernization in 2006 beneath revenue sharing settlement to the GMR organization and GVK group. That is the Joint project settlement to share some percent of revenues earned by joint venture companies not the profits earned with the aid of the Airports Authority. Consequently, this approach of Aviation sector made the business enterprise sharp increase in profits.

FINDINGS

- The Break- even point for the financial year 2006-2007 was Rs.3726.55 crores which means the organization need to earn this amount to avoid facing loss in the business.

When an organization earns beneath the break-even point then it means the organization making profit out of the business. And its sales for the financial yr 2006-2007 was Rs.3726.23 crores therefore the company was at no income no loss phase of the business. This becomes the financial year while the Aviation sector commenced privatisation and modernization of its commercial enterprise. This phase becomes the initial stage of growth.

- Similarly for the financial 2014-2015 the Break-even point is Rs.6144.30 crores, where the organization incurred Rs.6493.57 crores of expenses to earn Rs.9284.98 crores of revenues for the same financial year. The organization made a profit of Rs.2791.41crores. There is a tremendous boom in the returns of enterprise within the eight financial years. The major reason for the growth of the business is the privatization of Mumbai International Airport and Delhi International Airport in the year 2006-2007.

- The break-even point for the financial year 2015-2016 is Rs.6684.70 crores and the organization earned Revenue of Rs.10824.50 crores which is almost 3 times

of the revenue earned in the year 2006-2007. The profit earned by the Aviation sector is around Rs.3697.35 crores. At the same time the expenses also increased about 51% compared to the expenses of financial year 2006-2007.

- herefore from the analysis it clearly seen that there is a continuous and vast growth in the business after the financial year 2006-2007 due to privatisation and the growth of the airways in India, due to which there is an increase in demand for the services.

SUGGESTIONS

- The Aviation sector can adopt the way of management and operation from the privatised Airports and implement the same strategic in other several airports to improve efficiency of operations and which may lead to reduction of cost incurred in providing the services.
- All the Airports don't have Self Accounting units, so the Aviation sector should have Self Accounting units for the ease of management and operations.
- It can focus on reframe the charges for Non-Traffic services they provide in order to increase the revenue which will

not affect the business of Aviation services.

- The Aviation sector can reduce its cost by retrenching the Airports which are not under operations.
- The depreciation cost can be reduced by selling off the assets which are not in use.
- The Budget should be prepared by considering various economic factors.

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CONCLUSION

A study on Break-Even Analysis with the help of Revenue and Expenditure in Aviation sector is based on gaining descriptive knowledge about the revenue and expenses of the organization. By which it made easier to analyze the Break-Even point of 3 financial years.

Break-Even analysis is required to be calculated for all the business in order to fix the prices for the product or services they provide. Economic factors such as demand, supply and prices do affect the break-even point and profitability. This study helps to determine the ways to reduce unnecessary cost which can be reduced without affecting the business. Therefore this technique is simple way of analysing the operational as well as financial activities of the organization.

The major reason for the increase in growth of profit rates are due to modernization and

privatization of Delhi and Mumbai Airports. The major revenue for Aviation service sector is from the Airport leasing which means the privatization of airports on lease leads to increase in the income and boost up the profit. The privatization of airports leads to modernization and development of airport services helped the organization to adopt suitable strategy for the growth of business. The first year of privatization leads to no profit no loss phase of the business. The 10th financial year after privatization of airport, the Aviation sector made a profit about Rs.2000 crores which was a big boom for the sector.

REFERENCES

- [1] Ndaliman.B Mohammed and Bala.ckastina, (2007), Practical Limitations of Break-Even Theory, Australian Journal of Technology, (Page No 1. AU JT 11: 58-61)
- [2] Saywell, R. M., Cordell, W. H., Nyhuis, A. W., Giles, B. K., Culler, S. D., Woods, J. R., ... & Rodman, G. H. (1995). The Use of a Break-even Analysis: Financial Analysis of a Fast-track Program. *Academic emergency medicine*, 2(8), 739-745.
- [3] Ndaliman.B Mohammed and Suleiman.U.Y (2011), An Economic Model for Break-even Analysis, Federal university of technology, Pages 44.
- [4] Ali, A., Krapfel, R., & LaBahn, D. (1995). Product innovativeness and entry strategy: impact on cycle time and break-even time. *Journal of product innovation management*, 12(1), 54-69.
- [5] Hooper, P. (2002). Privatization of airports in Asia. *Journal of Air Transport Management*, 8(5), 289-300.
- [6] Pierluigi Morano, Francesco Tajani, (2017), The break-even analysis applied to urban renewal investments, *Habitat International*, Volume 59, Pages 10-20.
- [7] Lesure, J. D. (1983). Break-even analysis—a useful management tool in the lodging industry. *International Journal of Hospitality Management*, 2(3), 115-120.
- [8] Marek Potkany, Lucia Krajcirova (2015) *Procedia Economics and Finance*, Volume 26, 2015, Pages 194-201
- [9] Akitsu Oe, Hitoshi Mitsuhashi *Journal of Business Research*, Volume 66, Issue 11, November 2013, Pages 2193-2201
- [10] John E. Murdock, Ceib Phillips, Richard Beane, Rocio Quinonez, *American Journal of Orthodontics and Dentofacial Orthopedics*, Volume 137, Issue 3, March 2010, Pages 334-339
- [11] <https://www.aai.aero/sites/default/files/ENGLISH-ANNUAL-REPORT15-16-080117.pdf>