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Concept of break Even Analysis and Break Even Point in Supply Chain

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**Abstract** 

Break even analysis is termed as a financial strategy, used strategically in production

management, in order to ascertain the Total variable cost, also the fixed cost, with that the

product manufactured or produced, that is likely to be compared with the selling price, or the

sales revenue in order to determine the sales volume, value added to the product in sales, in

order to ascertain the liability of profit or loss in business, in supply chain.

Break Even Point determines the amount of sales needed to achieve a net income; it is

the point when organization revenue equals total fixed cost. Variable cost in which fixed cost

is the contribution made in supply chain. Break Even Point in operation management in supply

chain is considered as to the measure of how many units that is liable to be sold, by the

organization to make profit on the selling or sales, that is equal to the fixed cost applicable,

also how each unit can be sold in supply chain.

Beak Even Point is normally determined by dividing the Total Fixed cost with that of

the production revenue of an individual unit, minus the variable cost of per unit of the product

or goods incurred or occurred in supply chain.

Break Even Point, in supply chain is normally determined in comparison with the

organization performance, with that of the market price of the assets, or the closing stock,

stock on hand, on comparison with the original cost- price incurred, is when the prices are

equally mandated in supply chain.

Break Even Analysis in supply chain is an analysis of the market, to determine the

projected sales volume, also how many units of a product to be sold, to cover fixed cost,

variable cost, of the product, also to measure the safety margin, by understanding the

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anticipated expenses in supply chain. Break Even Analysis fixed cost do not vary which includes rent payable, insurance taken utilized, with the utilized expenses, incurred or occurred in supply chain.

Sales Revenue does also become a part of the activity of sales earned by the organization in supply chain, it is to how much profit that the organization is liable to contribute to the volume of business, on the profit of the business, as the organization is able to earn much better in the stages of life cycle on the Break Even Analysis in supply chain.

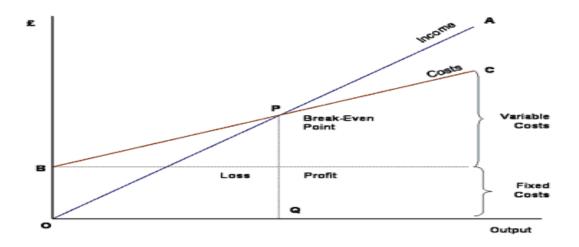
**Key Words**: Break Even Point, Break Even Analysis, Technique, Variable Cost, Fixed Cost, Contribution margin, Anticipated expenses

#### Introduction

In supply chain research conducted: Average loss profit (average profit on sales/divided by the average loss) for every sale, in the Break Even Analysis, after confirmation towards Direct Cost on Sales, (cash invested in goods/services) Average gross profit (gross profit equals revenue minus cost of goods sold) in the form of percentage, gives the impression of the sales realized in the form of income, to make gross profit, the Average Gross Percentage (average cost in numbers,/cost of production/unit by adding all the cost incurred then divide by the available data points,/total cost of production by total number (rent, labor, material) of units produced, then on to multiply by hundred in order to gain as a percentage) is to be divided by the Average Gross profit (gross profit equals revenue minus cost of goods sold) to constitute the Average Selling Price (price at which typical products are sold) in supply chain.

In supply chain the Break Even Point is liable to yield or is expected to yield higher revenue, it is necessary to find less expensive source of suppliers, as it may not be necessary to have labor work force, also it becomes necessary in supply chain, to find less expensive sourcing, buying, procurement, with suppliers in supply chain, as this saves in the form rent to be paid, from the working point of view to try and sell the product from the point of working from home, (better than working from office set-up) at a higher price in supply chain.

Supply chain importance of Break Even Point in Micro Small Medium Scale industries is normally the desire to know the need to achieve better Sales, realize better profit. A supply chain component of Break Even Analysis in Micro Small Medium scale industries includes sales revenue, fixed cost, variable cost, the contribution margin in supply chain.



## **Purpose of The Study:**

**Study conducted**: Understanding the requirements of components for manufacture or production, in conjunction with Break Even Point in supply chain, it is necessary to determine the need for components that are required immediately, urgently, for production, or manufacture, as it is the determination in supply chain, that require active participation, in order to meet the total sales, also the unit sales, in order to make the organization help in taking supportive decisions, in order to make it active, so as to contribute to the margin of profit or loss, on the amount earned before deduction of the cost incurred, as the financial resources of the organization are duly covered in the fixed cost incurred in supply chain.

Constitution of the Study: Sales in Break Even Point is determined by the quantum of sales envisaged, in order to determine on how much more sales is required to be contemplated in order to earn an active net income, when the fixed cost, including the addition of the variability in cost incurred, when the fixed cost is substantially equal to that of the Contribution margin made is found to be substantial in supply chain.

**Preference of the study**: The level of sales contributed in Break Even Analysis is capable to determine the need to achieve profit in an organization, also the determination of the required

sales, in addition to the targeted income, contributed by the organization, being normally included the available fixed cost, which is to be necessarily divided by the available total cost, with provision of constant margin of profit or loss in supply chain.

**Analysis**: Managing the size of the unit by Break Even Analysis on the number of units sold, including the variable cost, selling price, total cost, of the product, the proposed budget, targets set, on the establishment of real targets, manage safety margin, make profit on sales, on a margin of safety, to monitor control, cost affected by variable cost, in order to affect any changes, help in better design, on a pricing strategy, predictive analysis on rising prices, sold quantities, order to reduce the knowing the lead time in supply chain.

## **Literature Review (Citation)**

Fixed or Variable cost in Break Even Point, is that fixed cost, that never increase or do not increase because it is considered that if there is no increase in production, or any sales, in which case, while the fixed cost also includes the interest paid or any debt arising to be paid in the organization, insurance expenses incurred or occurred, salaries paid, to employees are some of the components applicable in supply chain. The liability of variable cost is to the increase in cost of the amount or if the sale in unit, within the organization increases the cost, that becomes applicable by 75% in supply chain. (Mark Kennnan)

Forecasting in Break Even Analysis depends upon selling price per unit, as lower price will increase contribution margin per unit, as selling price is the amount charged to the customer, for the product or service made available to the customer. In supply chain, total fixed cost minus total amount of cost required for the product per unit of manufacture or production, as the amount invested on capital, does not increase or decrease the production or manufacturing, if there is a increase in production, or on additional product or services, then there is a liability of additional capital to be invested, or additional expenditure to be incurred that is needed, so that variable unit cost are the incurred normal cost, that go directly into the manufacture or production cost, that is liable to vary with the additional one unit of production or manufacture by 60% in supply chain management. (Caleen Egan)

Forecasted net profit, is considered as the total Revenue, minus total Cost, as Break Even Point analysis for the variables in supply chain, as they do become independent, if any variable change in the total cost, that is to be considered amicably settled, that with that of the Fixed

Cost, plus Total Variable cost, as the Total Revenue, Total sales, Gross revenue, is the income obtained from sales, it is also to ensure that the organization is in sound financial health, in supply chain. Total Revenue minus the No of Units sold multiplied by the Cost per unit for both products, also the service rendered constitute 50% in supply chain. (Rami Ali)

Break Even Analysis of adopting safety stock procedure is considered to be a simple inventory, to prevent stock-outs during production, manufacturing, also coinciding with the fluctuating customer demand, with accuracy in forecasting, visibility to lead-time, for procurement, buying, sourcing of materials, for production, manufacturing, as such situation is to set up a Safety Stock levels on the basis of Break Even Point life-cycle, to execute such technique, it may result in poor performance, on designing higher service levels, which is likely to result in fewer stock-outs in order to balance the inventory costs, customer service in supply chain. (Twelfth Edition by Jay Augar: Barry Rand)

## **Research Methodology:**

Break Even Point is normally researched with the number of units sold, in order to make profit, also in which if the product is considered to have stop being sold, bringing into account the cost of the quantity sold, or to be sold, the amount to which the quantity to be sold, is to generate profit for the organization in supply chain.

Representing the volume of production researched in Break Even Point, where the total cost incurred is equal to total sales revenue, which may result into neither profit, nor neither loss where the situation of Sales Revenue minus the Total Cost becomes applicable in supply chain. Also included in the sales which is the minus of the variable cost, also minus the contribution margin made by the organization which is liable to becomes the Fixed Cost applicable in supply chain.

All costs researched in supply chain, are separated from Fixed cost in Break Even Analysis, as variable components fixed cost is liable to be said to remain constant, at the volume of output, as selling price will be constant, with Product mix being remained unchanged, also the productivity per worker immaterial of the output, will not change, with no change in price level applicable in supply chain.

Selling price is researched to be determined in Break Even Analysis, if the order made is considered to give the desired profit, on fixation of sales volume, to cover return on Capital invested on forecast, the cost, profit, as a result of changes in volume of procurement, helping in inter firm comparison of profitability, that determines the cost, revenue at various levels of output, giving an opportunity for an meaningful either to make or buy the product, forecast long term policy, in maintaining profitability in supply chain. This helps to determine cost, also to maintain the various levels of prices in supply chain.

#### **Results:**

Conditions in Break Even Point, where the organization does not make profit, neither does it suffer loss, on the conditions applicable in supply chain, the Break Even Point analysis the usefulness to find out the revenue, of the organization, on the cost incurred, where revenue is considered to be an important in supply chain... Break Even Point analysis is a tool not only analyzing the cost, but evaluating profit, that can be found in different sales volume, which is liable to be found sometimes as a potential disaster, in supply chain. Break Even point at which total cost, total revenue are equal as there is no liability for gain or loss, for a small and medium business, when the production has reached a level, at which the cost of production equals the revenue of the product, as a potential investor in business would like to know the return on investment, but also when they realize that return, as the organization is realized to make profit, but on losing the first few months of production or manufacture as break even, as breakeven point in any organization can be seen with Minimum revenue that must be achieved by order to obtain the targeted profit. Break Even Point analysis or Break Even Analysis is an analytic technique to study the relationship between costs, profits, sales volume in supply chain.

Break Even Point is the point at which business is neither profitable nor any outstanding debt of the expenses being paid, in supply chain, enough capital has to accumulated or gained in order to settle all the out standings, accountable sales volume, that are made after the Break Even Point is liable to represent the profit in supply chain.

In supply chain a lower Break Event Point, leads to more profit, more capital, more chances of better product development, new investment, Research& Development, as all activities are likely to stay competitive in supply chain.

Supply chain information, gathered can make a wide range of business decisions', including setting up of a price supportive decision, in preparing for competitive bids, for applying for loans in supply chain.

## **Discussions and Findings:**

Supply chain in mass production having high Break Even Point, which have a wider customer base, in supply chain, as this requirement often faces, organization to try out exciting new brand, possible in successful products, with given chance of priority to customers or consumers to improve on the conditions of product in supply chain.

If in a off take situation where Break Even Point, is met with lower contribution margin, can lead to greater financial stagnation in supply chain, considering if no action is being taken it may lead to an activity in supply chain. A Break Even Point with healthy profit, merged with opening up of potential markets, attractive potential markets, attractive designs, high brand, which is with recognition of better protection from competition in supply chain.

Supply chain in an organization where Break Even Point is the account of Sales or Revenue, that the organization should generate in order to equalize the business expenses, also it is point at which the organization should make profit, not suffer loss, the Break Even Point through hich Break Even Analysis can provide a tool with a quantitative power, which is liable to provide an insight, into whether or not revenue from product or service has the ability to cover relevant cost of the product of the product or service in supply chain.

Reverse logistics in Break Even Point is direct, as returned goods are uncontrollable, unpredictable; hence it is difficult to have a precise forecast, on the order of returned goods, convertible, from raw material to finished goods, after processing.

Product in convertible form is to be recovered without any benefit, as Break Even Point in reverse logistic in direct supply, in production is the system with the ability, to re-furbish, recycle, re-engineer the returned products to the effect on demand, cost of product, cost of disposal, numbering the type of components, required to re-furbish, re-cycle products each time, with a period of planning, working on the probability of coordinating with the products on demand in supply chain.

Returns are a part of the dynamic form with Reverse logistic, with linear function, in order to develop an optimal production plan, of the system, taking into account the return of finished goods, minimizing inventory cost, loss of production, with a demand for reversed logistics system in a closed loop supply chain.

#### **Future Work and Conclusions:**

Supply chain economic point of view, analysis where Break Down Point indicates the quantity of some goods, products, at which the design market is different, the quality, the quantity, the cost benefit are to be balanced in supply chain.

Management concept in Break Even Analysis, seeks to find quantity of output that just covers all the cost, including the expenses, as loss is generated if product cannot cover its own cost; it inherently reduces the profitability of the firm. Break Even Point, analysis, the impact of launch of new product, the impact of purchasing new capital equipment, cost of implication of changing, the process of products invests in price, changes price, cost of profit of the firm.

Profitability among Break Even Analysis, is the goal of every organization, the units, management turn to profit, produce products, also in turn provide service, that can quickly turn the organization of non-operative capital organization in supply chain.

Supply chain need to understand the output of the product, as the expenditure, fixed cost, and variable cost, total cost, total revenue will be in accordance with the output in manufacturing in supply chain. Variable cost are costs normally of selling delivery of the products, which is also liable to incur costs, fixed cost, depending upon the selling of product, additional expenses for the cost of delivery may differ, so there is a liability of variable cost, in supply chain to differ, as Total cost of Fixed cost, variable cost, make up the Total cost, as Total cost is likely to rise above the Fixed cost, when more units are sold in supply chain.

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