PRODUCT LEVEL PROFITABILITY – A KEY PLAYER IN FINANCIAL SUSTAINABILITY OF BUSINESS

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Abstract

This article elaborates key aspects and indicators of Profitability Analysis, which covers Historical, Real-Time and Predictive Analysis. Article looks into how Profitability Analysis helps in critical Business Decision Making and Business Sustainability. Explains how granular profitability assessment at product and customer level enables management to review Pricing Strategies, Product Life Cycle Analysis, and Resources Optimization & Marketing Strategy. The analysis helps to understand what went wrong in past? What can be done better to improve profitability levels? Importance of Predictive Analysis in Planning & Forecasting, use of various BI tools makes Profitability Analysis more insightful with the use of visualizations like trends, decomposition of data from starting from a broader level to a product level or even up to an invoice level. In today's competitive age, how management can amplify profitability. Improve market share by gaining higher volumes & optimum levels of profit. Profitability Analysis provides insights which helps organization to achieve short term & long term goals.

Introduction:

Traditionally business goals are to achieve maximum profit but in the current economic scenario optimum levels of profit work more effectively than better margin in terms of percentage. PROFITABILITY is often defined as the capability of the business to earn surplus over resources consumed during the period. Profit earning capacity depends on the profile of the product & competitiveness in the market. Analysis of the factors that are impacting the bottom line of the Profit & Loss statement, here CMAs plays a key role by creating timely alerts about unfavourable changes in costs. We need to keep watch on better fixed cost absorption. There should not be any under utilization of the production capacity. From the point of view of achieving better fixed cost absorption, there may be orders which are not profitable after considering fixed cost but give a positive contribution margin; that order may help in better fixed cost absorption.

Business can face downfall in profitability levels once there are entries of similar products of other brands; hence, the Innovation matrix is to be tracked, where we can analyse the profitability of the product since inception to till the period or at least defined life of the product.

Analysis should enable management to get insights about fact and figures where decisions about margin can be taken to achieve better margins, in fact the same product may give different profitability at multiple geographical segments. The product may indicate unfavourable profitability in one region with high volumes, but same may indicate better profitability with lower volumes at another region. These data points can be analysed further.

Key consideration & data points for Profitability Analysis -

Adopted Costing Methods & Techniques:

Cost distribution & absorption of variable & fixed cost over products is a key factor in analysing profitability, absorption costing is commonly accepted technique which is less complex to implement & follow. On the other hand ABC Costing also can be implemented on any of the business irrespective of industry nature, but complex & quite hectic to follow but it gives more accurate inputs for decision-making.

Activity Based Costing to assign accurate costs by using cost drivers, it is suggested that ABC costing can be used in partially for cost allocations mainly for Selling & Administrative Overheads whereas cost up to Cost of Production to be captured through Absorption costing.

On the other hand standard costing is a commonly used technique to track & measure cost, variances are analysed for management control & efficiency monitoring.

Objectives of the Profitability:

Main objective of the Profitability Analysis is to identify how our business is doing & what the areas are where we can focus to maximize its profitability:

- Detect areas which are causing lower margin products/services and their mix to overall business.
- Optimize resource allocation for maximizing profitability.
- Support strategic decision-making like product mix, business expansion decisions, and critical decisions about lower or negative margin products.

Methods & Techniques of Profitability:

It would be always better to analyse contribution margin; reducing directly identifiable costs from revenue gives clearer picture for effective decision making:

- **Base Data:** Accurate Cost & Revenue data at Product & Customer level for actual revenue executed during the period as well as budgeted revenue & budgeted margins to be captured for comparison so that comparative analysis can be done.
- **Key Indicators:** Compute Contribution Margin, Gross Margin & EBIT, generally contribution analysis is widely used indicator for analysing profitability of the business, however Gross Margin & EBIT are also key indicators to assess business health.
- **Dimension**: Create common masters for product category/family based on core function, product variants & business segment, e.g. automotive component manufacturing industry – propeller shafts, clutch, steering joints. Further propeller shafts further grouped as Utility Vehicles, Heavy Commercial Vehicles, and other applications. These masters helps us to summarize profitability levels. On the other hand customer master to be prepared based on customer profile for example Boiler & Heaters manufacturing industry then Food Processing Industry, Chemicals etc. as well as geography also to be captured.
- **Material Margin Analysis:** Material cost is a major element in the manufacturing industry, hence margins gives a broader idea about how much surplus is earned to bear other cost elements like labour, electricity, tools & consumables, repairs, depreciation etc.
- **Contribution Margin Analysis:** It is a better method to analyse profitability levels because it covers all variable cost components; the rest cost elements are allocations. Hence contribution levels indicate a clearer view about margins. It helps in the computation of Break Even Points which may further be used in critical business decision-making such as grabbing orders from the market with good volume, having negative EBIT but having positive

contribution levels. In that case, a decision can be made if there is a positive margin at the offered selling price.

- **Variance Analysis**: Profitability analysis becomes more effective & informative when there is comparison with budgeted data & previous periods, a deep dive can be taken to further analyse what went wrong & what did well.
- **Regular Review & Updates:** There should be CFT of stakeholders with whom profitability levels are discussed & analysed on a regular basis & does brainstorming on things that went wrong during period end corrective actions to be made. Tracking of corrective actions to be made & actions taken till date to be discussed in this forum.

Key outcomes from profitability analysis:

- **Identification of profit & non-profit areas** – non-profit areas to review & negotiate of price with customer & replace products with launch of new product with cost optimization.
- **Inputs for pricing strategy** about cost recovery or cost cuts & strategic growth decisions.
- **Inputs for investment decision** – business expansion, launch of new product and discontinuation of the Product or Business Unit.
- **Improved accuracy of Budgeting & Forecasting** – future business decisions are dependent on the accurate inputs for budgeting such as business expansions, CAPEX for replacement of old machines, inputs for manufacturing cost levels, overhead levels.
- **Supporting competitive advantage** through informed cost management and pricing.
- **Order execution analysis** – such as capital goods manufacturing company received an order a year back but during the year the scenario got changed & there is an increase in material cost due to commodity fluctuation; it may result in loss mainly because of delayed execution.
- **Favourable & unfavourable shifts in cost** during the period, necessary actions can be made for profitability improvement.

Particular	Amount	Remarks
Revenue	**100**	
Material Cost	60	
Other Variable Cost	10	All directly identifiable cost elements (including absorbed variable MFG cost)
Contribution	**30**	**Should be positive at any point**
Fixed Cost (Overheads)	11	Define cost drivers & capture cost using Activity Based Costing techniques
Profit	**20**	**May be negative for some bulk orders & to achieve better fixed cost absorption**

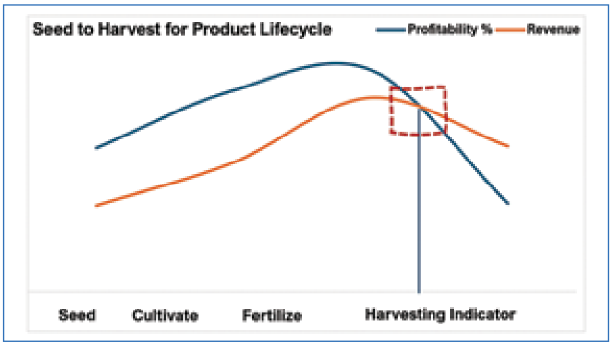
Basically there are 3 major aspects of Profitability Analysis – Historical, Real Time & Predictive, let's look into Historical & Predictive Analysis.

Historical Analysis

Historical Profitability Analysis compares product profitability performance historically and spot patterns of changes in profitability levels. Identifies sales patterns of the product & customer purchase patterns also reflects change in cost & revenue realization over a period of time.

Benefits of Historical Profitability Analysis -

Product Life Cycle Analysis: Profitability of the product can be traced since its launch in the market, periodic change in profitability levels, when the product reaches the saturation point in that case profitability ideally show a downtrend, perhaps higher efforts towards the product. Corrective actions can be made to focus on better performing products rather than higher volumes for lower performers. By identifying top and underperforming products, sometimes underperforming products help to penetrate the market, and if earning volumes it also helps in better fixed cost absorption.



Reading in the graph: Graph indicates stages of product life cycle, Seed – Innovation, Cultivate – Productionize, Fertilize – Invest, Harvest – Stage of discontinuation (highlighted in red border) & phase of launching new product into market.

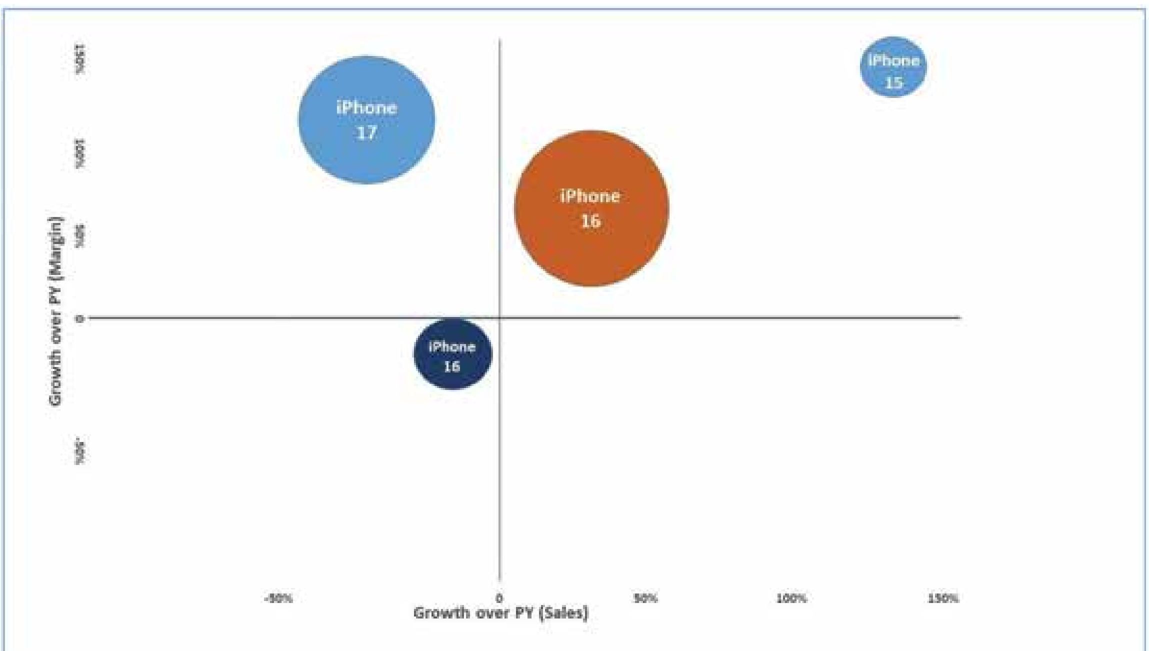
Cost Management, Product Pricing and Profit Positions: Break down the correct cost of the product, the analysis brings inefficiencies to the surface where decisions about cost cutting and improved pricing strategies can be brought in for increased sales levels without losing margin. In this situation robust data supports more informed and dynamic pricing decisions.

Trend Analysis: Review of historical performance of each product helps businesses spot emerging trends, seasonality or shifts in customer demand & profitability levels. These are important inputs for planning, forecasting, and discontinuing of demand-declining products.

Business Case Development: Historical insights guide innovation by validating product investment; historical performance data makes it easier to justify the launch of a new product or existing product with the cost optimization & changes in features.

Sustainable profit growth: Monitoring and acting upon abnormalities in product level profitability, businesses can optimize product portfolio or geographic existence in the market to maintain competitive advantage. Also entry into new regions also helps businesses to earn more volumes from the market and ultimately enhance existence in the market.

Visual for Historical Analysis (Growth in Revenue vs Growth in Profit):



Note: Above graph indicates hypothetical example contains, bubble size indicates absolute profit value

Read in the graph – Based on hypothetical example, graph indicates that iPhone 17 recently launched in the market, hence gross margin growth is better. Organization should focus on getting higher volumes for iPhone 17, whereas price realization for iPhone 16 is getting down as soon as new model launched iPhone 15 is still has potential mainly because of its lower prices as compared with the 17 & 16 series. Whereas iPhone 14 should be discontinued from the market & put more effort into iPhone 17 & 15 to achieve a better level of profitability.

Real-World Examples

- Tata has launched new models launched in EV segment, however due to higher price range & less number of charging stations, customer are still less attracted to the segment. Although profitability % are higher but in absolute terms long way to go.
- Apple analyzes product line profitability to shift resources, refine pricing, and remain at the industry's forefront.
- Amazon uses such analysis to optimize its mix of products on its platform, focusing on those that deliver higher margins.
- Starbucks leverages profitability analysis to manage its supply chain and tailor offerings, boosting profits through evidence-based decisions.

Predictive Analysis

This type of analysis works on forward-looking and gives insights for future decisions which contributes to profitability management. It leverages historical data combined with statistical information such as price changes, cost fluctuations, market change patterns and customer behaviour etc. These inputs help to prepare dynamic margin forecasting. Predictive analysis helps management in the best risk reward balance which also identifies criticalities in advance so that corrective actions are taken in advance to avoid future losses.

Forecasting: Inputs from historical profitability analysis are taken as a base where behaviour of variable cost factors is taken into consideration as well as prediction about changes in material cost levels. As well as variable costs need to be worked out, complex data churning is required.

Scenario Modelling: Anticipating various factors like market changes, customer behaviour, evaluation of potential market changes with all this Scenario Building can be done using inputs from past trends as well as futuristic data from the market.

a. Optimistic assumptions (High sales - low cost)
b. Pessimistic assumptions (Lower sales - high cost)
c. Average assumption (Averages sales – average costs)

Quality Data - Driver Based Forecasting: Accurate & reliable data such as selling prices, volumes, variable cost per unit including material cost (based on historical average plus future predicted prices). Best example is - Driver for sales value projection is selling prices & volumes that are expected from the market.

Proactive Planning: Forward-looking data & models to anticipate financial outcomes, such as margin forecasting of sales orders for next quarter or next six months, ideally the rankings can be done. Better margin products should be prioritized for production as well as dispatches.

Pricing Strategy: Pricing strategy is a directly impacting factor for gaining or losing volumes from market, it completely depends on the management approach. Sometimes products that are contributing positive margins are focused and negative margin products are least prioritized. Ideally capacity should be fully utilized even if negative margin products are produced these may be least prioritized but they are also helpful business in fixed cost absorption.

Hedging Strategies: Hedging is also an outcome of futuristic analysis about business, Hedging strategies are protecting business from financial losses, market volatility, currency fluctuations and commodity price fluctuations.

Budgeting for next financial year or Strategic Business Plan for next 3 years or 5 years is the best example of outcome of Predictive Profitability Analysis, since the finance manager has inputs from profitability analysis it to excel his prediction about future profit while preparing the Business Plan.

Data Analytics Tools:

BI Tools are playing key role in Profitability

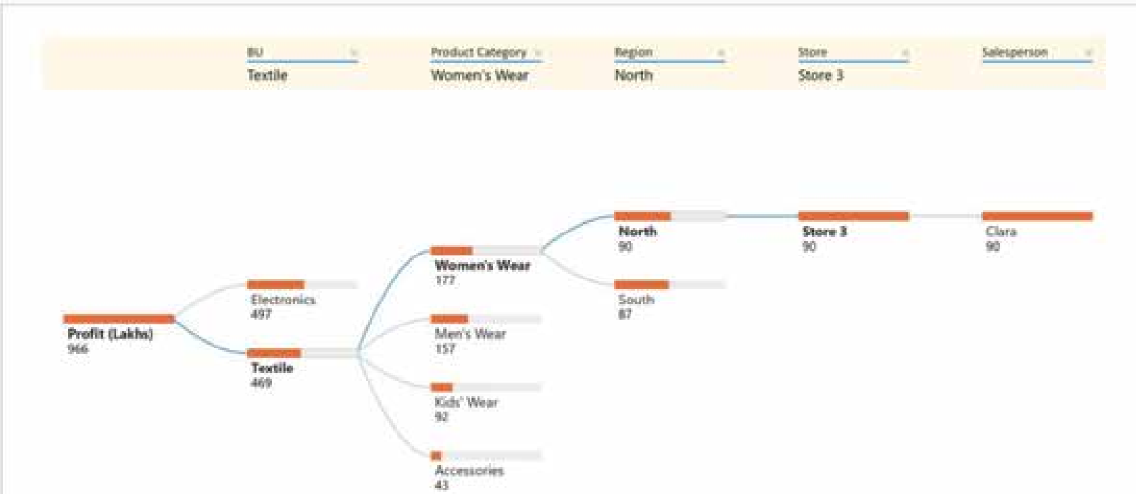
Analysis, tools like Power BI, Tableau, and Google Analytics etc.

There are substantial benefits of using BI tools like one-time, onetime linking between various data tables, creating visuals that provide consistency in the formats through graphs, decomposition trees, scatter diagrams, bar charts etc. by using slicers & filters on the page. It becomes easier to create storylines & do variance analysis.

Traditional tabular formats have many drawbacks like interpretation of the data, it becomes really difficult to read & interpret something from tables, Dashboards help in quickly identifying errors or inconsistencies in profitability data & analytical accuracy.

It becomes easier to trace unprofitable segment by just adding value based slicer.

Example of decomposition chart:



Note: Hypothetical example for Industry having Electronics & Textile BU

Conclusion:

In a nutshell Profitability Analysis is the key to unlock insights about Business Health, in the current era various types of data available in the organization. Using that information to make analysis effective is the skill that we need to wok upon. Insights from the analysis to be used for forecasting & planning to make future more visible & accurate. Analysis enables BU to transform data into actionable strategies, driving sustained growth and profitability in a rapidly evolving market. Analysis also help to make decisions about volume ramp up where management can think about optimization of profit levels to leverage profit per unit into maximize profitability in absolute terms. Incentive schemes can be launched to get volumes from the market to increase market share for at least products having positive Contribution Margin. There may be initiatives like VAVE, Kaizen initiatives may be driven to optimize major cost elements.

Moreover analysis of product lifecycle stages is important, that needs to be tracked at least on QoQ basis. It plays a vital role for Business Sustainability, it assesses improvement areas, business health checks and diagnoses weak areas, which enables management to achieve organizational goals. MA

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