Purchase Price Variance: How To Calculate and Forecast PPV

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For manufacturing companies, it's crucial to use purchase price variance (PPV) forecasting. This tool helps organizations see how changing raw material prices affect future Cost of Goods Sold (COGS) and Gross Margin. Using that information, they can make better decisions about pricing and finance functions, so as to provide better estimates of future profitability. Price variances can be a result of numerous factors, so PPV can help measure product spending effectiveness.

PPV is often caused by layering issues associated with the inventory system, such as FIFO. It can also be caused by a material shortage, such as commodity items, increasing the cost of the product. If there is high demand, companies will often pay extra shipping fees to get materials for suppliers on short notice. It may sometimes be the result of an assumption of the volume because the product cost comes from the basis of purchasing volume, rather than what the company buys.

Those in the business of commodities should work on developing standards for purchasing your company.

Where PPV Fits Into Budgeting

Material purchases can account for up to 70% of a manufacturing company's costs, so it's important to create a budget and monitor it to ensure costs remain close to the projected spend. In instances where a budget is created and the actual material price isn't known, the best estimate, known as "standard price", is used in its place.

After the budgeted costs realize, companies have an accurate way to measure the actual price, or actual cost, and actual quantity based on the number of units they purchased.

Purchase Price Variance represents the difference between the actual price and the standard price, multiplied by the quantity purchased. The formula is:

Purchase Price Variance = (Actual Price – Standard Price) x Actual Quantity

When the resulting number is positive, you have a positive variance. This means the total costs were more than what was budgeted. When the resulting number is negative, you have a negative variance, which means material costs were less than what was budgeted. Whenever possible, companies should aim for a negative PPV. Ultimately, businesses seek to purchase materials for less than they've budgeted so that they can keep profit margins higher.

> "PPV is an essential part of smart financial planning. The measure explains how market price changes in materials have affected the gross margin compared to the budget, which is key to understanding overall profitability."

How to Forecast Purchase Price Variance

So far, we've only discussed PPV as a historical indicator of what has happened in the past. Being able to use the metric to look ahead to the future is valuable to any organization. Forecasted PPV is a tool that highlights the future risk to overall profitability and gross margin. The formula to calculate Forecasted PPV is:

Forecasted PPV = (Forecasted Price – Standard Price) x Forecasted Quantity

Using forecasted PPV, organizations get visibility into how material price chances are expected to impact gross margins. This enables a proactive approach to protect the margins. With this information, finance teams can adjust their forecasts and forward-looking statements with confidence and explain material price changes effect on both.

If forecasted PPV is such an important performance indicator that's easy to calculate, why doesn't everyone use it? The issue is that your ERP or finance system cannot automatically calculate it. The SAP contains your standard prices, but it's more complicated to generate reliable data on forecasted prices and quantities.

Forecasting quantities should be based on the expected market demand and production volume. The problem with this is it isn't always available for all businesses, and what is available isn't always accurate. Because of this, quantity forecasts generally come from combining:

- Information from materials requirements planning (MRP) and demand planning systems.
- Manual entries and adjustments by those who understand the demand the best
- Extrapolated previous forecasts and historical quantities

Much like forecasted pricing can come from purchasing systems when there is enough visibility to contracted prices, procurement professionals need to estimate the key materials based on their current view of the supply market using cost structure models.

In a large company where there are multiple sources of forecast data, tens of thousands of numbers need to be forecasted, and when there are several locations and business units involved in the process, creating and maintaining a PPV forecast is not something to take lightly.

Because production costs are highly influenced by PPV of the materials, many focus on saving money to keep their PPV working in their favor. This isn't always a good thing because it may require changing material quality, and affect the overall quality of your company's final product. If quality suffers, then so does the customer experience. And when the customer experience declines, you risk losing them to the competition.

When the procurement team purchases materials for a very low price compared to the standard cost, which offsets the direct prices quantity variance because of the reduced material quality.

Reclassifying Purchase Price Variance

Purchasing departments measure PPV when they purchase raw materials. If there is a significant price variance, it needs to be reclassified into the inventory of raw materials, inventory of work-in-progress, cost of products, and inventory of the finished products. Reclassifying the variance is known as "allocating the variance." The reclassification should be based on the location of the raw materials that created the variance in the first place.

Procurement organizations play a role in adjusting the cost of materials while ensuring high-quality materials. Understanding the relationship between the actual cost of the product, standards, and variances, along with potential consequences, as this can lead to better supply chain management.

PurchaseControl manages your procurement processes to ensure you are getting value with every PO

[Find Out How]

— About **PurchaseControl**

PurchaseControl is cloud based procurement software for business spend management. We empower businesses by providing greater transparency and oversight into the purchasing process. With PurchaseControl, you have the flexibility to manage how spend actually happens instead of how you wish it would happen.

The entire PurchaseControl team has experience within a range of businesses, and as such, we bring a practical, holistic approach to purchasing. We understand what it takes to run a business and apply that knowledge to make PurchaseControl as effective as possible for all users.

Learn more at www.purchasecontrol.com

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