

Effects of the Purchase Price Variance Limit on a Buyer's Purchasing Skills.

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Abstract:

Background: The purchase price variance (PPV) plays a big role when it comes to the profitability of the company. The price variance directly defines the company's revenues during the procurement process. During demand, a buyer must do proper due diligence, like checking the inventory, checking with other suppliers, checking for substitute parts, checking with other sites, etc. The study will also show how the Favorable Purchase Price Variance (FPPV) is expected by the company and how an Unfavorable Purchase Price Variance (UPPV) is a direct loss for the company. This study will prove how the existence of Purchase Price Variance Limit restricts the employee to do proper due diligence where knowingly or unknowingly the employee spends more money on every purchase order (P.O) they create. Primary research with a sample size of 20 will be done using quantitative research with a survey questionnaire. The targets taken were the professional employees working as procurement analysts or buyers for different companies where some were more skilled and some were not, some had Purchase Price Variance Limit and some did not.

Materials and Methods: The present study is based on the sample size of 20 respondents who are working as professional buyers in Pune and Mumbai. The data was collected with the help of a survey questionnaire which was self-administered and was sent to the respondents using the social networking sites like WhatsApp and Facebook. The final questionnaire consisted of 17 questions that were related to the PPV limit given to the buyer and whether they do the due diligence or not. Each due diligence done will be considered as the skill enhancer for the particular employee.

Results: This section of the research revealed the major findings which were obtained from this research. The result in the table implies that the buyers who had the purchase price variance limit didn't do that much due diligence as compared to the buyers which no limits are given which made them more skilled and subsequently would have generated more revenue for the particular project/company.

Conclusion: The study has focused on how the buyers neglect the due diligence once they are granted the purchase price variance limit since they need to place the P.O before the next MRP release. On the other hand, the buyer with no purchase price limit exhibits more skills and is exposed to more details in the procurement process.

Key Word: Purchase Price Variance (PPV), Favorable Purchase Price Variance (FPPV), Unfavorable Purchase Price Variance (UPPV), Due Diligence, Purchase Order (P.O)

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I. Introduction

Procurement function has transitioned from a non-strategic unit to an effective socio-economic unit that can help in better decisions and add the value (Knight, Harland, Telgen, Thai, Callender, & Mcken, 2007; and Facolta di Economia, 2006). Whenever a buyer receives a Purchase Requisition, he needs to convert it into a purchase order using a particular ERP system or make it manually. During this purchase order placement, the buyer should abide by the quantity and price as per the material requirement plans given by the planners and forecasts. A standard price is set by the company for the particular part in the system. When a buyer places the P.O he makes sure that the price per unit is equal to or less than the standard price and should not exceed it. This can lead to two conditions viz.; total price is within the limit and total price exceeds which becomes unfavorable for the latter case some companies or projects provide the purchase price limit to a particular buyer. Due to this limit, the buyers tend to avoid the due diligence process during P.O placements and negotiations and impact as well as restrict their skills. Avoiding the conversations and negotiations will worsen the already deteriorating performance, loss of professionals and organizations will continue incurring unnecessary costs (DCD/DAC, 2003). An ideal buyer needs to make sure the total P.O price remains as per the standard price or below it, to do the same, the buyer has to do various due diligence which includes many steps like checking the inventory, checking if there is an immediate requirement, checking with the distributor, checking with a substitute part, negotiating the price, etc. Once the buyer is granted the purchase price limit, he tends to save the time of the due

diligence and uses the limit to place the P.O. This affects the profit of the company if such limits are given to multiple buyers. Not only the loss but the buyer themselves do lack in skills and are not exposed to multiple scenarios where they need to build the relationship with the suppliers. This study will discuss the various aspects that are affected due to the buyer not doing due diligence due to the provision of the PPV limit.

II. Literature Review

Key Performance Index (KPI) in procurement

Procurement KPIs are a type of performance measurement tool that is used to evaluate and monitor the efficiency of an organization's procurement management. These KPIs help an organization optimize and regulate spending, quality, time, and cost. Knudsen (1999) elaborates a Purchasing Performance Management Systems (PMS) based on purchasing processes thus involving different actors such as the Purchasing Department, suppliers, and internal customers.

- Compliance rate
- Supplier defect rate
- PO and invoice accuracy
- Rate of emergency purchases
- Supplier lead time
- PO cycle time
- Vendor availability
- Cost per invoice and PO
- Spend under management (SUM)
- Procurement ROI and benefits
- Price Competitiveness

The Purchase Price Variance: An important Key Performance Index (KPI)

Purchase price variance (PPV) as a key performance indicator, in a standard costing environment always seems to be at the top of the list. PPV results when the actual PO price is different from the budgeted price. This is significantly used to determine the efficiency of the procurement function.

The PPV acts as an alarm to buyers and the top management to future issues. Currently it has now been transformed into a leading indicator, which supports the most important KPI i.e. gross margin. (Mark Scott, CPA, 2014)

The Due Diligence

According to Siedel (2014), before starting a negotiation, depending on the situation, the negotiator must be clear about which approach to use, since, one multiple approach can lead to multiple effects. What is to be negotiated should be very carefully understood along with the factors that can affect adversely.

III. Theoretical Background of Unfavorable Purchase Price Variance Limit (UPPV limit)

The Concept of Purchase Price Variance

The purchase price variance (PPV) is the difference between the standard and the actual price paid to buy material, multiplied by the actual quantity purchased. The following is the formula:

$$\text{Purchase price variance} = (\text{Actual price} - \text{Std price}) \times \text{Actual quantity}$$

Positive variance / Unfavorable purchase price variance = Cost is increased

Negative variance / Favorable purchase price variance = Cost reduced

Causes of Unfavorable Purchase Price Variance

- Due to the increase in a sudden demand for the item where there is no option but to accept the proposed price from the supplier.
- Due to the introduction of the new supplier where the part is no longer manufactured by the old supplier and the new sources supplier has greater price proposal.
- Due to rush orders, where the supplier has to increase the manpower to decrease the lead time which can lead to an increase in price per item.
- Due to lower quantity ordered where the order placed is for the quantity which is less than the minimum order quantity (MOQ) which makes supplier increase the cost.

Unfavorable Purchase Price Variance Limit (UPPV limit)

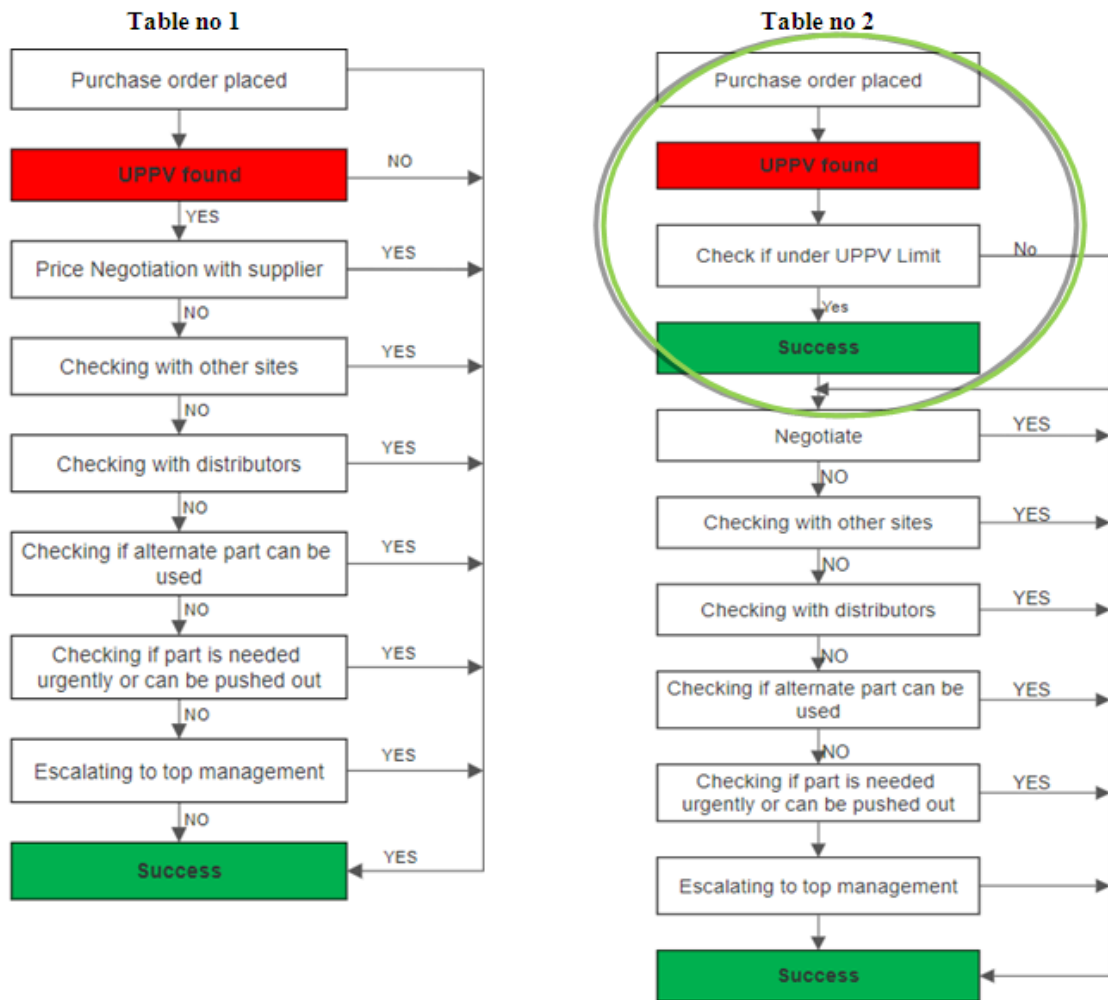
UPPV limit is given to the buyers to make sure there is no time consumed in the buying process and mostly this term is used in the companies and projects which procure the customized parts. Purchase orders are released from the system if the purchase price is below the threshold. Here the buyer takes advantage to skip the due diligence where he could save some amount for the company by negotiating, or searching for other suppliers, or escalating. However, buyers who have to follow the standard prices are not able to release the orders from the system and have to carry out proper due diligence.

Buyer Skills and Due Diligence

Certain skills like supplier relations, negotiations, process knowledge, dealing with problems, finding better solutions, are enhanced once the buyer starts to have the conversation with the suppliers as well as gets involved in the process. No matter it's an FPPV or a UPPV a buyer, according to an SOP must do complete due diligence and must always work for the company's profit.

Table no 1: Avoiding the UPPV and converting into an FPPV for a buyer with no UPPV Limit

Table no 2: Avoiding the UPPV and converting it into an FPPV for a buyer with Rs. X as UPPV Limit



IV. Conceptual Framework and Research Objectives

A Buyer's mindset when given a UPPV Limit and a P.O is under the limit.

If the P.O is under the UPPV discrepancy however if it is just under the UPPV limit given to the buyer, then the buyer avoids the due diligence which can reduce the cost of the P.O.

Condition: Buyer has a UPPV limit of Rs 1000

Item: Spring

Std Cost: Rs 10/spring

Supplier's new price: Rs 10.5/spring

Quantity: Rs 2,000

Total Cost as per std price: Rs 20,000

Total Cost as per new price: Rs 21,000

Unfavorable Purchase Price Variance: Rs 1000

Buyer's attitude: Rather than doing complete due diligence and wasting time that can be utilized to complete other reports, the P.O will be placed by the buyer since the UPPV is under the threshold limit.

Effect on the purchase order: With the complete due diligence, there could have been a saving of Rs 1000 for an organization.

Solution: Making sure the buyer is not given the UPPV limit or the limit is reduced. Also keeping the systems updated with the current prices of the particular items regularly.

V. Material and Methods

This quantitative study was carried out from February 2021 to March 2021 on employees working in the procurement vertical from Mumbai and Pune who have professional experience of 1 to 4 years. A total of 20 buyers (both male and females) were for in this study.

Study Design: Quantitative study with the questionnaire.

Study Location: Mumbai and Pune.

Study Duration: February 2021 to March 2021.

Sample size: 20 buyers.

Sample size calculation: The sample size was taken based on the questionnaire prepared. 20 buyers working in purchase departments were considered.

Subjects & selection method: The employees were selected at random, with below inclusion and exclusion criteria.

Inclusion criteria:

1. Any employee but must be a buyer.
2. Either sex.
3. Aged ≥ 18 years.
4. The employee should have 1 to 4 years of professional experience as a buyer.
5. The employee should be from Mumbai or Pune.

Exclusion criteria:

1. The employee outside the location.
2. The employee having greater than 4 years of experience.
3. Aged < 18 years

Research Objectives:

The current study investigates the effect of giving an unfavorable purchase price variance limit to a buyer and how does it affect its procurement skills.

This objective can be classified into the following sub-objectives

1. To study whether the buyer has the UPPV limit and still does the due diligence.
2. To understand the deep effect on the buying skills due to skipping the due diligence.

Statistical analysis:

Data were analyzed using Microsoft-Excel 2016 and a graphical representation was done. The data were grouped into 2 categories. 1) Due diligence done by the buyers with no UPPV limit 2) Due diligence is done by the buyers with some UPPV limit. The employees with no UPPV limit did do every due diligence as they were not able to place the P.O until the PPV discrepancy was solved. However, the employees with the UPPV limit did complete due diligence. The data was then analyzed through a graph with buyers and the number of due diligences they did respectively. It was possible to arrive at a particular conclusion due to the statistical analysis of the data.

Software/Platform used: Microsoft-Excel; Microsoft-Word; Google Form.

VI. Result

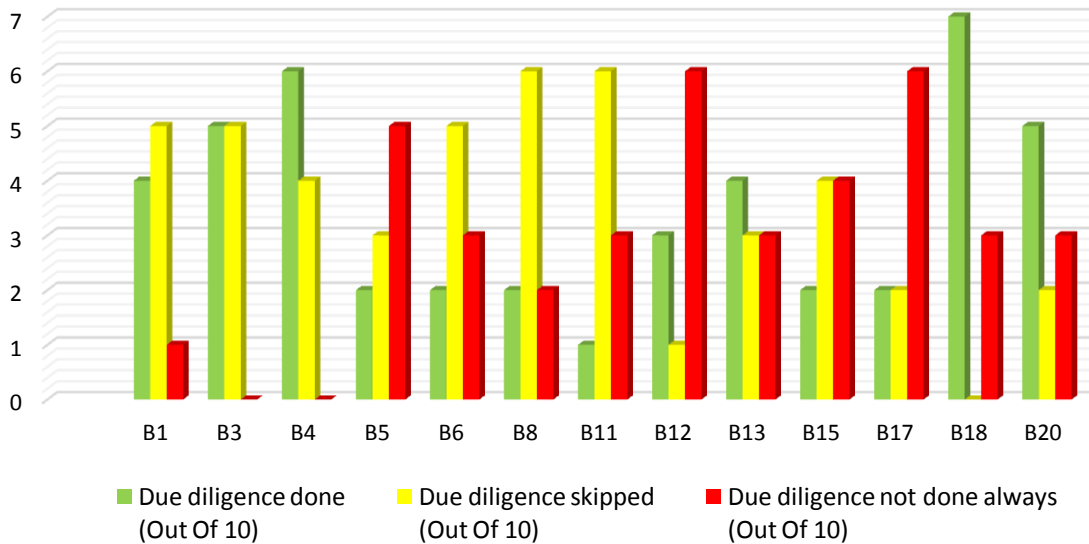
Every buyer has a different approach towards time management. It was seen that the responses recorded from 20 buyers were random. The questionnaire-based survey consisted of 17 questions. Each due diligence done would carry a score (Yes – 10; Maybe – 5; No - 1). As per the decided score, it would be easy to analyze and interpret the effect on buying skills due to the presence of the UPPV limit. A higher score will imply that the buyer has more skills and work more efficiently while lower score will indicate that the buyer doesn't find the need to do more savings due to time constraints and result in having the underdeveloped skills.

A) The following table no. 3 shows the buyers who have the UPPV limit given to them and as a result have scored lower which directly or indirectly have affected their skill development. The lower the score, the less skilled is the buyer. Some buyers B1, B5, B6, B8, B11, and B15 have scored very less which shows they are less skilled or freshers with inappropriate training. Also, it can be seen that these buyers have done less due diligence and have skipped more of them which resulted in a low score.

Table no 3: Buyers scoring less than 70

Buyer	UPPV Limit	Due diligence done (Out Of 10)	Due diligence skipped (Out Of 10)	Due diligence not done always (Out Of 10)	Total Score
B1	Yes	4	5	1	50
B3	Yes	5	5	0	55
B4	Yes	6	4	0	64
B5	Yes	2	3	5	48
B6	Yes	2	5	3	40
B8	Yes	2	6	2	36
B11	Yes	1	6	3	31
B12	Yes	3	1	6	61
B13	Yes	4	3	3	63
B15	Yes	2	4	4	44
B17	Yes	2	2	6	52
B18	Yes	7	0	3	85
B20	Yes	5	2	3	67

Graph no 1: Buyers with no UPPV limit

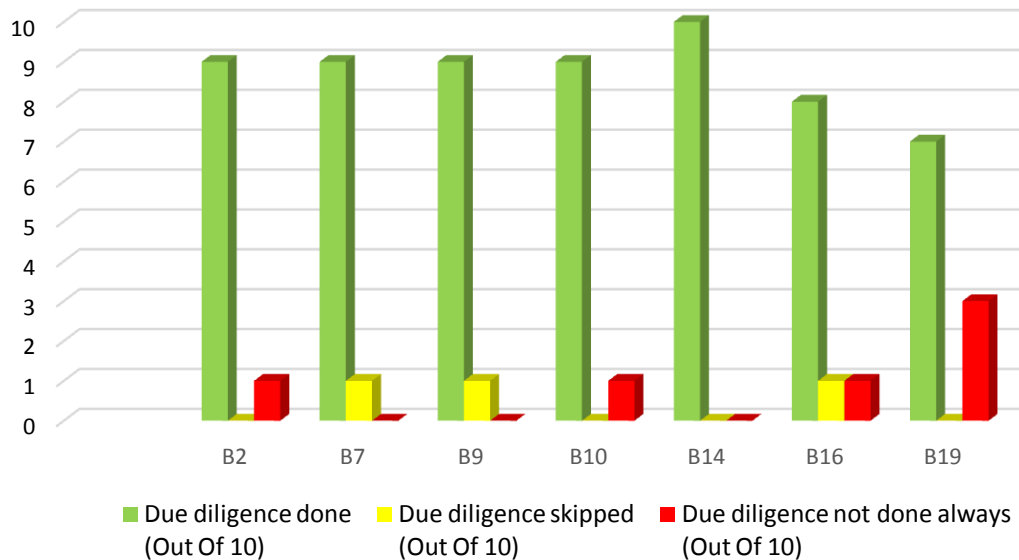


B) The following table no. 4 shows the buyers who did not have the UPPV limit and as a result, have scored higher which makes them more exposed to the process and development in the skills. Higher the score, highly skilled is the buyer. Buyers B2, B10, and B14 showed the maximum score which indicates complete process knowledge and good buying skills. It is visible that these buyers have done more due diligence as compared to the buyers with some UPPV limit given.

Table no 4: Employees scoring less than 55.

Buyers	UPPV Limit	Due diligence done (Out Of 10)	Due diligence skipped (Out Of 10)	Due diligence not done always (Out Of 10)	Total Score
B2	No	9	0	1	95
B7	No	9	1	0	91
B9	No	9	1	0	91
B10	No	9	0	1	95
B14	No	10	0	0	100
B16	No	8	1	1	86
B19	No	7	0	3	85

Graph no 2: Buyers with UPPV limit



VII. Conclusion

This study concludes that the buyers who did not have any UPPV threshold limit had no other option but to do the complete due diligence to release the P.O from the system. This not only gave them exposure in the field but also helped them to enhance their purchase skills. On the other hand, the buyers with the UPPV threshold did skip many of the important due diligence steps for various reasons, which stopped them from developing their skills. The company should make sure that the UPPV threshold should only be given to the buyers under serious circumstances to save the purchase order price.

References

- [1]. Ghalayini, A.M., Noble, J.S. The changing basis of performance measurement. *Int. J. Oper. Prod. Manag.*
- [2]. Ramsay, J.(2004).Serendipity and negotiations in supply chains. *Supply Chain Management: an International Journal*, 9(3), 219–229.
- [3]. Sharland, A.(2001). The negotiation process as a predictor of relationship outcomes in international buyer-supplier arrangements. *Industrial Marketing Management*, 30(7), 551–559.
- [4]. Thomas, S.P.,Thomas,R.W.,Manrodt, K.B.,& Rutner, S.M.(2013).An experimental test of negotiation strategy effects on knowledge sharing intentions in buyer-supplier relationships. *Journal of Supply Chain Management*, 49(2), 96–113.
- [5]. Zachariassen, F.(2008).Negotiation strategies in supply chain management. *International Journal of Physical Distribution & Logistics Management*, 38(10), 764–781.
- [6]. Helen Rogers (2018): Successful buyer-supplier relationships: The role of negotiations
- [7]. Lucas Sciencia do Prado (2018): Analysis of negotiation strategies between buyers and sellers: an applied study on crop protection products distribution.
- [8]. M. Ishaq Bhatti (2014): The key performance indicators (KPIs) and their impact on overall organizational performance

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