

Management accounting

LCBB5002

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INTRODUCTION

Management accounting is a very broad field that involves the overall management and preparation of the different aspects associated with the costing etc. In this field, *variance analysis* is of key importance that adds in the overall value of the business. The difference between the standards that were set and the actual that is achieved is basically computed in variance analysis (Rosyidi, 2019). In this report, the case study of XLG will be evaluated in context of the different variances whose implementation will help in decision making. Further the positive and negative aspects of using variance analysis will also be illustrated in the report.

MAIN BODY

PART A

Sales price and sales volume contribution variance

Sales price variance basically indicates the increase or decrease in the revenue generation due to fluctuation in the standard selling price and the actual sales price. The standard selling price is mainly established so that company can earn the desired profit through their products sold by selling the goods at a price of their choice (Tan and Low, 2017).

The variance is said to be Favourable (F) when the actual sale price exceeds the standard that was set up as the revenue generation increased creating a beneficial situation. At the same time, variance can be Adverse (A) as well if the actual sale price is less than the standard one. Favourable variance can arise when the economy is facing inflation or the sale price charged is very high etc. and adverse variance can be incurred if the quality is poor or if standards are not set properly etc. (Windapo and Moghayedi, 2017). The formula for calculating sales price variance is:

$$\text{Sales Price Variance} = (\text{Actual Rate} - \text{Standard Rate}) * \text{Actual Quantity sold}$$

For XLG, the sales price variance for both their chemicals X and Y can be ascertained in following manner:

Particulars	Chemical X	Chemical Y
Actual units	850	750
Actual sales price	45	37
Actual sales revenue (Actual units * selling price)	38250 (850 * 45)	27750 (750 * 37)
Standard price	35	30

Deviation in price (Actual price – Standard price)	10 (45 – 35)	7 (37 – 30)
Actual units	850	750
Sales price variance (Deviation in price * Actual units)	8500 (850 * 10)	5250 (750 * 7)
Total sales price variance (8500 + 5250)	13750 (F)	

The tabulation above indicates that the total sale price variance for XLG is £13750 in favourable position i.e. company is in a profitable situation and they have been able to do so because the actual sale price is higher than the standard one.

Sales Volume contribution variance can be used to identify the differences in the contribution i.e. profit that is earned by an organisation due to difference between the actual sales and the estimates sales volume i.e. quantity. This variance actually helps in ascertaining that how the variation in sales volume can actually affect the overall profits (Bai, 2016). There are two methods of evaluating this variance i.e. to use absorption costing method by calculation of per unit profit or by using marginal costing where the standard contribution on a per unit basis is ascertained.

The favourable variance situation can arise when the total units sold are higher than the budgeted ones and this can be due to increased demand, better quality of services etc. The adverse variance can arise when the demand is not very high or when there is a better competitive product etc. (Farkas, Kersting and Stephens, 2016). The formula that can be used to calculate the sale volume contribution variance can be calculated as follows:

$$\text{Sales volume contribution variance} = (\text{Actual Sales Units} - \text{Budgeted Sales Units}) * \text{Standard margin}$$

In consideration of the XLG Company, the statement for sales contribution variance can be ascertained in following manner:

Particulars	Chemical X	Chemical Y
Actual sales units	850	750
Budgeted sales units	595	595
Difference	255 (850 – 595)	155 (750 – 595)
Standard margin	25	20
Sales volume variance	6375	3100

	(255 * 25)	(155 * 20)
Total sales volume contribution variance	9475 (F)	

Therefore, the above calculation indicates that the overall sale volume contribution variance for the XLG Company is favourable with £9475 and this is mainly due to the increased number of units sold for both the chemicals than the expected ones.

Material price planning and material price operational variance

The *material price variances* are instrumental in ascertaining that how effectively and correctly can the future prices of the product be estimated by the managers (Marzlin Marzuki and Ismail, 2019). The *material price planning* variance indicates the effectiveness of the overall planning of the managers where the comparison is made between the original budget developed and the revised budget developed in realistic manner. This variance helps in ascertaining that how effective was the planning earlier and also identifies the need to have a revised budget when the existing budget is not in accordance with the current market conditions that are prevalent. This is generally done when the standard that has been set was not in anticipation of the future conditions or when some unforeseeable future condition arises that could not have been easily predicted. The favourable planning variance can arise when the general market prices are higher than the original prices that were set up and this can be due to increase in the requirement of the product, change in market conditions etc. The adverse variance can arise when the original prices are higher than the general prices and this is mainly due to decrease in demand, faulty setting up of prices etc. (Messer, 2016). The formula for evaluation of this planning variance can be presented in following manner:

$$\text{Material Price Planning Variance} = (\text{Original budgeted price} - \text{Market Price at time of purchase}) \\ * \text{Quantity Purchased}$$

For XLG Company the material price planning variance can be calculated in following manner:

Particulars	Original budget	Revised budget	Actual
Chemical X	2.5	4.5	3.7
Chemical Y	2.5	4.5	3.7
Budgeted production	800	800	1600 (800 + 800)
Material price planning variance	(4.5 - 2.5) * 1600	3200 (A)	

The calculation above clearly indicates that the revised price was much higher than the actual or original price that was set up and this led to the creation of an adverse situation for the company with £3200.

The **material price operational variance** indicates the overall comparison of the deviation in the decisions related to the factors that were in control of the managers effectively (Zhang, 2017). The operational variance is exactly what the name of this variance indicates i.e. it helps in evaluating the operating efficiency of the company where the controllable aspects of the organisation are evaluated and the decision that were made related to them are evaluated accordingly. The operational variance helps in ascertaining that how the overall performance can be improved and here the performance of the manager is compared with the standards that have been adjusted indicating the overall conditions in which the managers usually work. The overall implementation of the planning and operational variances helps in analysis of the controllable and uncontrollable factors associated with the overall operation. The manager is faced with the opportunity to take corrective decisions that can be operated properly and in an appropriate manner in accordance with the fact that some of them cannot be controlled or pre- determined by the managers (Shim, 2016). The material price operation variance can be calculated using following formula:

$$\text{Material price operational variance} = (\text{Market price at time of purchase} - \text{Actual Price}) * \text{Quantity Purchased}$$

Based on this formula, the operational variance for the XLG Company can be calculated in following manner:

Particulars	Original budget	Revised budget	Actual
Chemical X	2.5	4.5	3.7
Chemical Y	2.5	4.5	3.7
Budgeted production	800	800	1600
Material price operational variance	(3.7 - 4.5) *1600	-1280 (F)	

The calculation above clearly indicates that the net result in the operational variance is favourable in nature where the actual price that was incurred was less than the budgeted one thus indicating that the managers did good analysis of the future movement of price.

Advantages and disadvantages of using variances

The use of variance in the overall analysis of the performance has indeed been an extremely utilised tool where the comparison of the actual performance with the standards that were set for it helps the managers in clearly identifying what were the areas or decisions that went wrong which in turn clearly evaluates the overall performance and decision- making of the responsible managers (Bragg, 2016).

The **major advantage** of using variance is that the managers of the company are able to develop better decisions and it helps in increasing control and monitoring as well. The identification of the cause behind any adverse deviation helps the management in quickly identifying hat what exactly is the area that needs to be improved or redeveloped in order to remove the deviations. This can also lead to reduction in the average time and cost that is incurred in the manufacturing of the products or in the completion of the overall activities that are associated (Edwards, 2016). The top management, supervisors etc. can also motivate employees to work harder in order to achieve the standards that have been set up. This mainly indicates that the employees can objectify the entire process that they adopt where the key activities that help them in the achievement of the goals are fostered and encouraged. Another major advantages is that it helps in the maintenance of the financial stability in the company as the computation of the variances mainly helps in the evaluation of the different financial factors and when the conditions are not favourable for the organisation then measures like cost- cutting etc. can be implemented (Collis, Holt and Hussey, 2017).

The **inherent disadvantages** that are associated with the use of variance analysis are also illustrative and numerous. It can be illustrated although this helps in identifying areas or employees with ineffective performance but it also makes the managers more insensitive towards those employees where they fail to consider any other aspects that might have also led to the overall decline. Additionally the employees are motivated in a wrong manner where they begun to focus on the achievement of standards only which make them lose their quality of work,

precisions level, customer satisfaction etc. (Graybeal, Franklin and Cooper, 2018). Ultimately all of this leads to the increase in the complaints regarding the product and hence sales will also decline resultantly. Another major disadvantage is the fact that the need to innovate and creativity amongst the employees is diminished where they tend to follow only the standard protocols and procedures that have been established in order to complete the work as quickly as possible so that standards can be met. This technically curbs the long term growth of the organisation (Jiambalvo, 2019).

In relation to the case undertaken of XLG as well, it can be adequately illustrates that the calculation of the material price variances, the only relevant information available was that there was a favourable material price variance of £27000. It can be said that the purchasing department needs to be further analysed so that the variance can be illustrated as this alone is not adequate source of information. The changing market conditions add to the uncertainty aspect along with reliability concern and this is not entirely in control of the purchase department managers. Additionally, when the material price variance is classified into planning and operational categories of variance, the usefulness of this tool increases as it helps in the analysis of elements and factors of multiple nature (Hoch and et.al., 2018). The planning variance indicates those elements that are uncontrollable and not in purview of the managers while the operational variance indicates those elements which are completely under control and authority of the managers. This collectively indicates the efficiency of the department as a whole and improves the capabilities of the individual employees.

Organisations and the management in particular needs to develop standards that is realistic and attainable and achievable as well. They cannot be vague or overestimated/ underestimated either as this can lead to the reduction in the overall performance and motivation level of the employees. It is also possible that the incurrence of variance can be justified due to faulty planning or incorrect estimations and expectations etc. (Nishimura, 2019). The revision of the entire standard that has been set up and analysing the factors again to set up a new variance is a very costly and engaging process which needs to be avoided at all costs. It can further lead to the major impacts on the overall budget of the company as well.

Therefore, in this manner the different aspects that are associated with the positive as well as negative side of the implementation of the variance analysis tools has been critically analysed and illustrated. It can be concluded that although variance analysis is not the most conclusive and reliant tool but nonetheless, it helps in effective monitoring and measuring of the tools and the flexibility to introduce changes also increases (Vera and et.al., 2016).

PART B

Assessment of the make or buy decision for XLG

The dilemma that the company currently faces is that whether the famaQ can be manufactured in house i.e. in the UK itself or whether it should be continued to be exported from the Brazil. It is evident that famaQ is the key behind the competitive advantages that is available to XLG and the demand for both the chemicals has also increased in the current pandemic of corona virus.

Particulars	Make	Buy	Increase/(Decrease)
Material required of famaQ for every unit of chemical X and Y	3	3.7	-0.7
Number of units to produced (1600 units + 45% increase)	2320	2320	2320
Total cost	6960	8584	-1624

Based on the above calculation, it is evident that the better option for XLG is to develop famaQ in house in UK itself as the costing is much less and additionally the benefit of reduced delivery time can also be gained where the overall time can reduce by 15 effective days.

CONCLUSION

The research conducted in the report above helps in concluding that the variance analysis helps in the decision making for the XLG company sales and material variances were tabulated of the campy and the effectiveness of the variance analysis in the overall management of the company was also critically analysed. Lastly, the company was advised to start in- house production based on the calculation made.

REFERENCES

Books and Journals

- Bai, G., 2016. Applying variance analysis to understand California hospitals' expense recovery status by patient groups. *Accounting Horizons*. 30(2). pp.211-223
- Bragg, S. M., 2016. Cost accounting fundamentals. *Colorado, CO: Accounting Tools*.
- Collis, J., Holt, A. and Hussey, R., 2017. *Business accounting*. Palgrave.
- Edwards, J.B., 2016. Modern gross profit analysis. *Journal of Corporate Accounting & Finance*. 27(4). pp.45-55.
- Farkas, M., Kersting, L. and Stephens, W., 2016. Modern Watch Company: An instructional resource for presenting and learning actual, normal, and standard costing systems, and variable and fixed overhead variance analysis. *Journal of Accounting Education*. 35. pp.56-68.
- Graybeal, P., Franklin, M. and Cooper, D., 2018. Distinguish between Financial and Managerial Accounting. *Principles of Accounting, Volume 2: Managerial Accounting*
- Hoch, J. E. and et.al., 2018. Do ethical, authentic, and servant leadership explain variance above and beyond transformational leadership? A meta-analysis. *Journal of Management*. 44(2). pp.501-529.
- Jiambalvo, J., 2019. *Managerial accounting*. John Wiley & Sons.
- Marzlin Marzuki, N.A.R. and Ismail, J., 2019. Benefits and limitations of variance analysis in management accounting. *ACCOUNTING BULLETIN*. p.15.
- Messer, R., 2016. Teaching Variance Analysis for Cost Accounting: How to Achieve above Par Performance. In *Advances in Accounting Education: Teaching and Curriculum Innovations*. Emerald Group Publishing Limited.
- Nishimura, A., 2019. Profit opportunity, strategic innovation, and management accounting. In *Management, uncertainty, and accounting* (pp. 97-127). Palgrave Macmillan, Singapore
- Rosyidi, C.N., 2019, August. Make or Buy Decision with Price and Quality Dependent Demand. In *Proceedings of the International Manufacturing Engineering Conference & The Asia Pacific Conference on Manufacturing Systems* (pp. 272-277). Springer, Singapore.

- Shim, J. K., 2016. *Accounting and finance for the nonfinancial executive: An Integrated Resource Management Guide for the 21st Century*. CRC Press
- Tan, B.S. and Low, K.Y., 2017. Budgeting Practice in Singapore—An Exploratory Study Using a Survey. *Asia Pacific Management Accounting Journal*. 12(1). pp.77-103.
- Vera, O. D. and et.al., 2016. Assessing psychology students' difficulties in elementary variance analysis. *Revista Diálogo Educacional*. 16(48). pp.487-511.
- Windapo, A. and Moghayedi, A., 2017. BUILDING MATERIAL PRICE DIFFERENTIATION IN SOUTH AFRICA: THE ROLE OF RETAILERS AND LOCATION. *WELCOME TO DELEGATES IRC 2017*. p.447.
- Zhang, C., 2017. The Application of Variance Analysis in FP&A Organizations: Survey Evidence and Recommendations for Enhancement. *Journal of Accounting and Finance*. 17(8). pp.54-70.

