

XLG COMPANY REPORT

ASSESSMENT 2

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INTRODUCTION

Management control systems are typically designed to understand and address the variations from initial plans (Otley, 2016). In this regard, variance analysis is one of the integral parts of the management control systems (Palmer, 2012; Whittle, 2012). The calculation of variances such as material and sales variance highlights important information about the decision-making capability as well as the performance of the managers (Bradshaw, Keef and Roush, 2011; Zhang, Zhou and Liu, 2011). Based on this, effective decisions can be taken. Based on this, the paper under consideration is based on the case of XLG and will calculate the material and sales variance based on provided data. Subsequently, by analysing the available information, the paper will also critically evaluate the make or buy decision for one of the key ingredients of its high-selling products.

PART A: CALCULATION

I) CALCULATION OF SALE VARIANCE

To calculate sales price various, calculations are presented in the table along with the formula:

Sales price variance = Actual volume X (actual price – standard price)

Description	Actual Price	Standard Price	Difference	Actual Volume	Sale price variance
Chemical X	45	35	10	850	8500F
Chemical Y	37	30	7	750	5250F
TOTAL					13750F

To calculate sales volume contribution variance, the below formula can be used:

Sales volume contribution variance = Standard margin X (actual sales volume – budgeted sales volume)

Based on the above formula, the calculations are as follows:

Description	Actual sales volume	Budgeted sales volume	Difference	Standard Margins	Sale volume variance
Chemical X	850	595	255	25	6375F
Chemical Y	750	595	155	20	3100F
TOTAL					9475F

II) CALCULATION OF MATERIAL VARIANCE

To calculate material planning variance, the calculations and formula are as hereunder:

Material planning variance = Purchased quantity X (original target price – the general market price at the time of purchase)

Material planning variance_(Chemical X) = 850 X (2.5 – 4.5) = -1700 = 1700A

Material planning variance_(Chemical Y) = 750 X (2.5 – 4.5) = -1500 = 1500A

Similarly, for each chemical material price operational variance can be calculated using the formula below:

Material price operational variance = Quantity purchased X (general market price at the time of purchase – the actual price paid)

By putting values in the above:

Material price operational variance (Chemical X) = $(4.5 - 3.7) \times 850 = 680F$

Material price operational variance (Chemical Y) = $(4.5 - 3.7) \times 750 = 600F$

III) MERITS AND DEMERITS OF USING VARIANCE

As discussed earlier, variance analysis can be effectively used to understand the performance of an operation against the budget or standard that is set. In this regard, it is often argued that this may also be used for the performance assessment of the managers who are responsible to look after any particular operation (Manafe and Akbar, 2015). This section will briefly understand the merits and demerits of using variances for performance assessment.

MERITS

The following are the major merits of using variance for the performance assessment of the managers:

1. The variance analysis and relevant calculations help the managers to take effective decisions. With the help of variance calculations, the managers can understand the impact that an organisation is likely to face and based on this, the problems can be foreseen with effective preventive actions (Coles and Li, 2012). In other words, if variance analysis is used for performance assessment, this can help to develop forward-thinking decisions within the managers. For instance, in the case under consideration, the sales variance analysis for XLG can help the sales manager to understand the demand patterns and based on this, the decision on the prices can be taken to achieve the budgeted numbers.
2. As highlighted by Reh(2019), variance analysis is one of the most effective management control mechanisms. By using variance for the performance assessment of the managers, this can help to effectively trace down the cause of variances from the standards or budget (Jusoh, Achmad and Omar, 2013). This will not only help the organisation to understand the reasons for variations from the standard cost but will also help to take necessary decisions with regards to the strategy of the organisation. In the case under consideration, XLG can also use variance analysis such as material and sales variance to assess and control the performance of its managers.
3. According to Drucker (2012), a management control system such as variance analysis can be typically used to assess the performance or decision-making ability of the managers for the area under their control. For instance, in case of XLG, a favourable sale price variance that is found above highlights the forward-thinking capability of the sales manager as he or she might have understood the variation in supply and demand, based on which the decision of price increase was taken. As this is used to assess the

performance of the particular area under the manager's control, this may also help to better engage the employees.

4. Another key benefit of the variance analysis for performance assessment is the identification of the wastes (Lyons *et al.*, 2013; Panwar *et al.*, 2018). Different type of wastages produced by an organisation directly contribute towards its efficiency and performance. When an organisation uses variance analysis for the performance assessment of core management team, this would not only help to identify the gaps in performance but would also highlight the areas and factors that are producing the wastage (Drucker, 2012). With the identification of this, effective and timely decisions can be taken for sustained performance of the organisation. For the case of XLG under consideration, material price planning as well as operational variance would not only help to take effective decision related to purchase but would also avoid any unnecessary wastage caused due to inefficient inventory control.

DEMERITS

The demerits of using variance for performance assessment of managers are as hereunder:

1. One of the major and notable disadvantages of using variance analysis for performance assessment is its impact on the behaviour of the managers. Typically, the performance assessment exercise within the organisations is linked with rewards management (Ururuka, Otley and Beekes, 2009). For instance, if a positive variance would be linked with the rewards, it has a high potential of letting the managers exaggerate the numbers or it may also result in dysfunctional behaviour. For a positive material price variance, the managers may prefer to buy cheaper materials. This will result in improved individual performance, but the cheaper material would eventually affect the quality as well as the reputation of the organisation (Sauerland, Soyeaux and Krajewski, 2015). Based on this, variance analysis should not be used for performance assessment or at least, it must not be linked with the reward management.
2. As mentioned by Clark (2010), the variance is not directly influenced by the decisions of the managers. The variance is typically driven by several internal and external factors, few of those are not under the direct control of the managers. In this scenario, if those factors result in a positive variance, this might not be an exact reflection of the individual performance. In other words, variance analysis cannot be used as a standalone indicator to understand the individual performance of the managers as it is controlled by several external and internal factors (Pobric, 2017). Based on this, it also allows slack within the organisations. Taking an example of XLG, apparently, the favourable sale price variance may indicate effective decision-making and foreseeing ability of the manager. However, in actual, it is due to the external factor, which is an increase in demand due to COVID-19 that has increased the use of cleaning agents.
3. As demonstrated earlier, the variance is dependent on several internal and external factors and, sometimes, managers would have limited control over this. In this scenario, if variance analysis would be used for performance assessment, this may demotivate the individual managers (Cassar and Gibson, 2008). As highlighted by Moore *et al.* (2017), when employees are held accountable for something, which is not under their control, this will lead towards their poor engagement and demotivation resulting in a decline of

productivity. Additionally, for many cases, continued use of variance for performance assessment may also promote a blame culture within the organisation. In many cases, the causes of variances are difficult to explore and this let the managers put blames on each other, which will result in poor teamwork and productivity. Considering the case of XLG, if material price operational variance is negative and it is used to assess the performance of the operations manager of the company, this may lead to the poor engagement of the employees. This is specifically true if the performance of manager is considered ineffective and the negative variance is because of any external factor which was beyond the control of the managers.

4. Variance analysis is also argued as a time-consuming exercise and to accurately or reasonably understand the variances, analysis of historic information is also required (Usman et al., 2016). This might be effective to understand for decision-making; however, for performance management, this might not be a good option because of several limitations that have been discussed above.

PART B: XLG'S DECISION TO MAKE OR BUY FAMAQ

For the situation under consideration, to take an effective decision, it is imperative to understand the costs and benefits associated with each option (Nordigården *et al.*, 2014). In this regard, to reach a decision, this section will analyse the costs and benefits of both in-house manufacturing and outsourcing. Subsequently, other risks associated with both will be discussed to reach a decision:

COST AND BENEFIT ANALYSIS

To understand if the cost of outsourcing is relevant, the framework illustrated in Figure 1 can be effectively used (Atrill and McLaney, 2018, p.44).

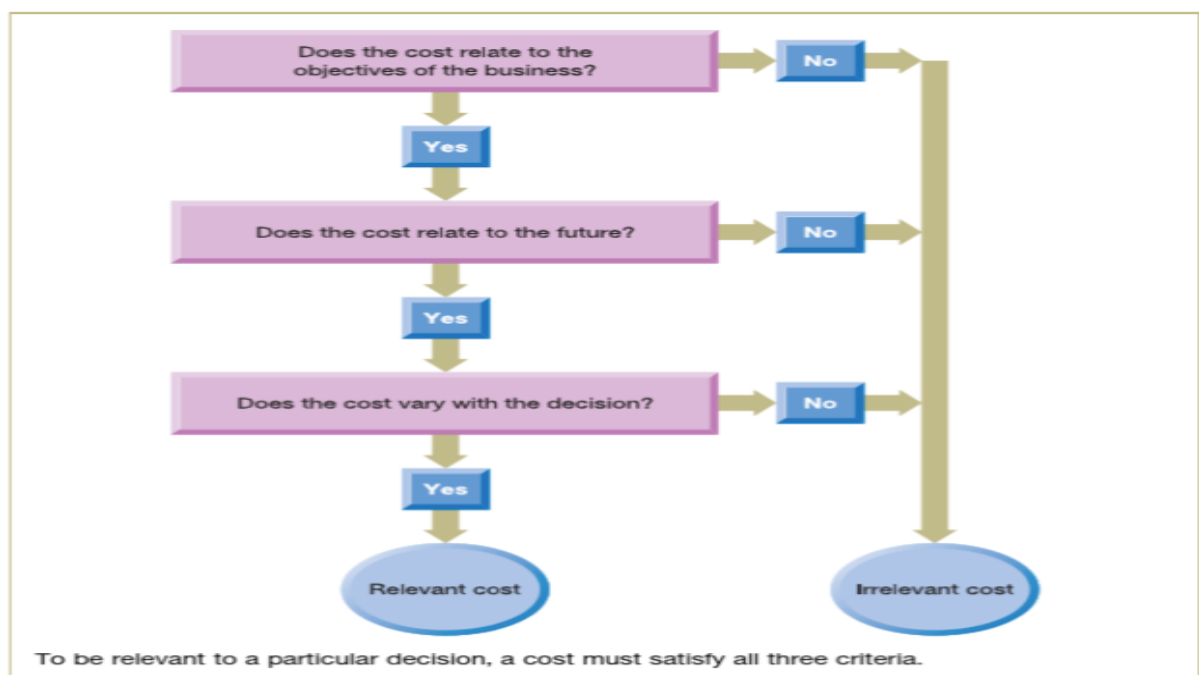


FIGURE 1: ASSESSMENT OF RELEVANCE OF A COST FOR BUSINESS (SOURCE: ATRILL AND MCLANEY, 2018)

Using this framework, the cost of outsourcing would easily meet the first two criteria. For instance, the cost is related to the business objectives of XLG as FamaQ is one of the core ingredients for chemical X and Y, which are among high-selling products. Secondly, the cost would also relate to the future as the information highlight a 45 per cent increase in demand for chemical X and Y, which is likely to retain. Lastly, for the point of variation in cost with the decision, it may have two different opinions. The company would have a notable price advantage by manufacturing FamaQ in-house. Currently, the cost of outsourcing from Brazil is £3.7 per unit, while the cost of in-house manufacturing would be £3.0. Additionally, the cost advantage would also be visible due to a reduction in lead time by 15 days as it will result in the efficient management of inventory. Nonetheless, this cost of FamaQ might not be considering the indirect manufacturing costs as well as the capital cost. To start the in-house production of FamaQ, the company might have to set-up a separate manufacturing facility. Besides, this facility would also require management of separate resources to ensure uninterrupted supply of FamaQ. Thus, the initial capital cost might be a concern and to attain the short-term advantage of reduced in-house cost, this might not be a justified decision (Beagency et al. 2015; Añón Higón, 2016).

An analysis of the scenario also highlights the price of FamaQ from Brazil has jumped from £2.5 to £3.7 due to disruptions caused by lockdowns and disruptions in international travel. On a long-run, both of these factors are not likely to continue. Additionally, as the demand for cleaning agents would increase, the supply will also increase resulting in a new equilibrium and prices. This means, the increase in the outsourcing cost of FamaQ is short-term and is likely to come back to the normal situation after lockdown. In this scenario, the capital cost of setting up an in-house manufacturing facility might not be justified.

OTHER POTENTIAL RISKS

Considering other potential risks of in-house manufacturing, it would include the shift of management focus at the top of the list (Moses and Åhlström, 2008; Martin et al. 2010). By setting up an in-house manufacturing plant for FamaQ, the management focus may shift from its main products. This shift in focus may also result in the disrupted supply of chemical X and Y, quality issues and other operational problems.

Other than this, in-house manufacturing may also require XLG to maintain resources with strong specialist skill set in different areas, which might be challenging to the source within the United Kingdom (UK). Another possible risk on a longer-run could be the increased manufacturing cost of FamaQ over time. In comparison to Brazil, the UK has a poor consistency of the manufacturing cost. For instance, in Brazil, the minimum wage is more than 80 per cent lesser than the UK and there is consistency in this. Same is the case with other costs, taxes and regulation, which might be challenging for the company to absorb as the situation would come back to normal after lockdown.

However, the decision of continuing with outsourcing may also have various risks. For instance, it will result in increased manufacturing cost of chemical X and Y, which will deplete the margins of the company. Secondly, this may also cause disruptions in the supplies of the

chemical (Spiller, 2011). Nonetheless, most of these risks are either short-term or can be mitigated with effective price strategies.

DECISION

Considering the discussion above along with the advantages and disadvantages associated with each decision, it can be argued that XLG should continue with the outsourcing of FamaQ from Brazil. This is primarily because the benefit of the price is short-term and after the lockdown, when markets will establish a new equilibrium, the price is likely to revert. In this scenario, the capital cost of setting-up and in-house manufacturing facility for FamaQ might not be justified.

CONCLUSION

Summarising the key arguments, variance analysis can be considered as a valuable tool for performance assessment of managers. Nonetheless, when combined with reward management, this may promote dysfunctional behaviour. In this scenario, the effectiveness may reduce and it may also develop a blame culture within the organisation. Regarding the decision of outsourcing or in-house manufacturing within XLG, the data highlights a short-term advantage of price. Although this may improve the margins and reach to the market for a short-term scenario, the capital investment cost of setting up a plant cannot be justified. Moreover, this also carries several other risks that may influence the business performance negatively on a longer-run. Thus, XLG should continue with the outsourcing of FamaQ from Brazil.

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