



Company XLG

Report

Module Name: Management Accounting

Module code: LCBB5002

Lecture Name: Winifred Soribe

Student Name: Svetlin Pavlov

Student number: 1814104

Contents

Part A	2
Calculation	2
1. Sales variance	2
2. Material variance.....	2
3. Analysis.....	2
Part B	6
REPORT ON MAKING-OR-BUYING FamaQ.....	6
Introduction.....	6
Applying the Concept of Relevant Cost	7
Making the Decision.....	7
Other Considerations	8
Conclusion and Recommendation	9
Reference.....	10

Part A

Calculation

1. Sales variance

Sales price variance = (actual price – standard price) x actual volume

Description	Actual price	Standard price	Difference	Actual volume	Sales price variance
	£	£	£		
Chemical X	45	35	10	850	8500 F
Chemical Y	37	30	7	750	5,250 F
TOTAL					13,750 F

Sales volume contribution variance = (actual sales volume – budgeted sales volume) x standard margin

Description	Actual sales volume	Budgeted sales volume	Difference	Standard margin	Sales volume variance
	Units	Units	Units	£/unit	
Chemical X	850	595	255	25	6,375 F
Chemical Y	750	595	155	20	3,100 F
TOTAL					9,475 F

2. Material variance

- Material planning variance = (original target price – general market price at time of purchase) x quantity purchased
 $X = (2.5 - 4.5) \times 850 = 1,700 \text{ A}$
 $Y = (2.5 - 4.5) \times 750 = 1,500 \text{ A}$
- Material price operational variance = (general market price at time of purchase – actual price paid) x quantity purchased
 $X = (4.5 - £3.7) \times 850 = 680 \text{ F}$
 $Y = (£4.5 - £3.7) \times 750 = 600 \text{ F}$

3. Analysis

Variances analysis in business management and accounting describes the difference between planned figures and the actual figures observed (Kaplan and Atkinson, 2015). One of the major reasons why variance analysis is used is to monitor performance (Drury, 2013). In other words,

when the difference between the observed value and the pre-determined expected value exceeds a certain range, performance must be questioned and a decision is made (Drury, 2013). As seen in the scenario of company XLG, the actual sales and material prices were different from those from the budgeted values, thus a decision about the performance of various departments and their managers in the company must be made. Therefore, this essay will evaluate the merits and the demerits of using variances to evaluate the manager's performances concerning the managers of company XLG.

One of the advantages of adopting managerial variances as a performance monitoring tool is that it is a fair tool. It is fair because the managers are judged based on events they can control (Kaplan and Atkinson, 2015). For example, the sales department generated a positive variance, thus indicating that they put in a good performance or increased their efficiency for the quarter in consideration. At the same time, the purchasing department generated an unfavourable variance because they bought more materials than was originally budgeted for. However, judging the managers of these departments solely based on variance can also generate dysfunctional behaviour (Horngren *et al.*, 2015). For example, the sales manager might be encouraging his staff to engage in unethical acts like buying back their products just to reach a certain targeted figure. Likewise, the purchase manager might buy cheaper and substandard products to ensure that he stays within budget cost while increasing the volume of raw material bought. Furthermore, the production manager might decide to service aging machines instead of buying a new one to cut costs. But buying new ones might have been the better option in the long run.

Another advantage of using variance is that it helps managers make efficient decisions about their operation. This means that the managers can easily make the right and forward-thinking decisions based on reducing their unfavourable variances (Fullerton *et al.*, 2013). For instance, the production manager can easily identify which machine or unit of production is contributing the most to the unwanted variance. It might be a faulty machine or an increased cost of local production. Either way, the simplest solution is evident from a quick analysis of the variance. When managers act in such a timely manner, it helps the company fix its inefficiencies, thus increasing profitability (Fullerton *et al.*, 2013). On the other hand, using this standard also allows the manager to be slack whenever they think they are in the "safe" variance zone

(Macintosh and Quattrone, 2010). For instance, instead of engaging in innovative ways that will further increase sales, the sales manager can stay relaxed until he notices that their performances fall out of range.

Furthermore, managerial variance tool allows the management to control the actions of each department almost "remotely" (Kaplan and Atkinson, 2015). This is especially useful in large companies where the departments are scattered over wide geographical regions (Fullerton *et al.* 2013). This means that the boundary of action for each manager is set by the budget and any act that falls out of line will be easily noticed. This also gives managers the freedom to act and use their judgment to increase performances within their boundaries (Fullerton *et al.* 2014). On the other hand, sometimes variances do not account for all inefficiencies of managers as sometimes the budget might have been overstated or understated (Bol, 2011). For example, the sales figure that was budgeted by XLG was smaller compared to the reality on the ground because of the effect of the pandemic. Thus, the sales team "looks good" on paper without being innovative in the field. Additionally, when adopting variance as a measuring tool there might be difficulty in tracing the cause of increased or unnoticed variance (Macintosh and Quattrone, 2010). For instance, the reason why the purchase department spent so much on buying raw materials was because of the rising demand coupled with the increased cost of famaQ. Likewise, the increased sales generated are to be linked to the effect of the pandemic and care should be taken to evaluate such demand. This shows that if proper care is not taken to explore the causes of variance it might not be known as decisions would have been made based on the observed variance already.

But, with variance, managers can easily take responsibility for the actions of their departments as they are responsible for the actions of their units (Fullerton *et al.*, 2014). For instance, after noticing the variance of his unit, the purchase manager must start looking into how to fix the issue or at least explain to the management why his team spent so much. If the explanation presented is not satisfactory or unverifiable, then the management will either decide or carry out their investigation. Either way, someone in the chain of command has taken responsibility for the event and investigative efforts can be focused on solving the phenomenon. However, the other side of the coin to this approach is that it encourages a blame culture within the organization (Bol, 2011). In other words, members of staff and management will be quick to

point accusing fingers before trying to solve or investigate the problem. This culture breeds a negative working culture that might make some managers lie to management to keep up with other units (Bol, 2011). For example, the production manager might lie that the company can keep up with production without drastic changes to the machinery. This culture of lying to management can be seen in the current scandal affecting Fiat-Chrysler. The scandal showed that the company made claims about emissions levels that were not backed by their engine's performances (BBC, 2020). In summary, using variance as the only performance measuring tool is not advisable as it generates a lot of negative consequences that might undermine its usefulness. Therefore, when adopting variance as a performance measurement tool, it must be used in conjunction with other tools to balance out the negative consequences.

Part B

REPORT ON MAKING-OR-BUYING FamaQ

Introduction

The scenario described a situation where company XLG must make a make-or-buy decision. A make or buy decision is a process of determining whether a company should manufacture a product in-house or buy it from an external supplier (Moschuris, 2015). This decision is also called an outsourcing decision (Moschuris, 2015). In this case, XLG must decide whether to keep buying FamaQ from their supplier in Brazil or to start producing in-house. This report will assess the arguments for both sides and recommend a decision.

The make-or-buy decision is a concept in managerial accounting that enable companies to cut cost by outsourcing (Moschuris, 2015). In order words, a company can reduce its production cost by securing the raw materials needed for production at different levels of pre-fabrication. Thus, the outsourcing firm can fully focus on developing the final products while delegating the duty of prefabrication to usually smaller firms (Moschuris, 2015). Outsourcing has even become more important in the present age of globalization where supply chain can extend across the globe (Xu *et al.*, 2013). Specifically, significant improvement in communication and transportation has made it easier for nearly all countries to easily participate in outsourcing. This globalization was what XLG tapped into to access a better cost advantage. By outsourcing FamaQ, a key component needed to produce its final products, XLG has effectively cut all costs and taxes associated with fabricating FamaQ. It then stands that; outsourcing becomes redundant when the cost advantage it brings is no longer economically viable. Hence, when companies become disillusioned by the cost advantages of outsourcing, they must revisit the make-or-buy decision all over again (Xu *et al.*, 2013). Revisiting this decision will allow the company to determine if it should change its protocols or persevere with the existing supply chain. Hence, it can be said that changing economic and production conditions are what necessitates making a make-or buy-decision (Xu *et al.*, 2013).

In this case, the reason to reconsider the initial operational condition was prompted by an increase in the cost of buying FamaQ from the supplier in Brazil. This reason coupled with changes in capabilities to mass-produce FamaQ in the UK has made making the decision more

urgent and important. However, rising costs are not enough as a justifiable reason to change operational protocols (Xu *et al.*, 2013). Instead, the decision will be thoroughly reviewed using the concepts of relevant cost to ensure that the decision is made based on sound business research and analysis.

Applying the Concept of Relevant Cost

Relevant cost defines incurred costs that could be avoided when making certain business decisions (Tulvinschi, 2010). In other words, relevant cost helps to differentiate between what should be considered as important and what is not, when making business decisions. The importance of utilizing this framework when making a make-or-buy decision is that it prevents wasting resources on businesses that are not viable nor important to the survival of a firm (Tulvinschi, 2010). Therefore, it is a rigorous test that scrutinizes managerial business decisions not just for logical consistency but for economic viability as well. Additionally, using the relevant cost theory helps to filter excess information that is not directly pertinent to the decision at hand (Tulvinschi, 2010). Hence, the relevant cost theory framework will remove unnecessary pieces of information that might complicate the process of deciding on making or buying FamaQ. The relevant cost concept framework that will be adopted for this decision will be the framework described by Atrill and McLaney (2018). In their study, Atrill and McLaney (2018) described three (3) criteria that must be satisfied before the cost of a business decision can be considered relevant. These criteria are: does the cost relate to the objectives of the business; does the cost relate to the future; and does the cost vary with the decision. For the cost of a business decision to be considered relevant, it must pass all the three criteria listed by Atrill and McLaney (2018).

Making the Decision

To apply this framework, the first step is to consider if the cost of FamaQ is pertinent to the objectives of XLG. When the business objectives of XLG are considered, it will be seen that FamaQ is the key ingredient that makes their product unique. Therefore, considering the importance of the material to the business concept of XLG it is important that FamaQ be purchased or produced at both the highest quality and cheapest price possible. By obtaining products at the cheapest possible price without compromising its quality, companies can gain

a competitive cost advantage (Um and Kim, 2019). This cost advantage can enable the company to manipulate prices at a rate that will give them further market advantage over their competitors (Um and Kim, 2019). Thus, since FamaQ has been established to be central to the business objectives of XLG, the decision can proceed to the next step. In this phase, the decision will be evaluated in the context of future sustainability (Atrill and McLaney, 2018). The future of FamaQ's related products: chemical X and Y, are secured because research by the company showed that the demand for both products will increase in the future. Further market research analysis showed that the increased demand is driven by the effect of the current pandemic ravaging the world. Therefore, the security of these products is further proof that changing the operational protocol for FamaQ is important considering the new production conditions. The final phase of applying the concept is to analyse the decision from a cost variation perspective (Atrill and McLaney 2018). In other words, it must be considered whether changing the operational protocol results in significant cost changes for the company. However, cost analysis showed that manufacturing FamaQ within the UK is cheaper than importing from the current supplier. When analysing the cost of production of materials, variables like transportations, housing, logistics, and manpower needed to move the materials must be considered (Shephard, 2015). The analysis showed that the cost of making FamaQ in the UK is about £3 per unit inclusive of transportation and storage. However, the actual cost of buying from Brazil is about £3.70. A furthermore bonus is that if the product is made in the UK, XLG will be able to monitor the quality of production. Additionally, producing in the UK will reduce the delivery times by 15 working days, thus increasing the speed of production, and reducing lag time in the supply chain. All in all, the sound business decision to make is to move the production of FamaQ to the UK.

Other Considerations

However, in the long run, XLG must consider other factors in addition to the one already analysed. One such factor is the capital needed to set up the manufacturing plant in the UK. If XLG does not previously have the capabilities to manufacture FamaQ, then the company must consider whether it has enough capitalization to pursue such a task in the current economy. If the company is not able to bear the project, then it must secure a viable alternative supplier in the UK before disengaging the supplier in Brazil. Doing this will sustain production and ensure

that they meet all current demands, hence guaranteeing a constant level of revenue. Furthermore, the company must establish whether the projected 45% increase in demands will outlast the pandemic situation. In other words, the company must consider whether the demands are indeed sustainable in the long term, especially the "very" long term, if XLG wants to set up its production plant in the UK. This is because pursuing a long-term project in response to a short-term need is not a sound business decision (Ramanathan and Gunasekaran, 2014).

Conclusion and Recommendation

The report has presented reasons why XLG needed to revisit the initial outsourcing decision it made concerning FamaQ. The reasons showed that the economic viability of the process was no longer distinctively obvious. Therefore, to revisit the decision, the concept of relevant cost was applied to arrive at a new outsourcing process. The framework of relevant cost showed that FamaQ is a product whose use is pertinent to the economic viability of XLG. Also, it was demonstrated that the material's importance to the company will grow in the future as the products it is used for will attract increased demands. Finally, the framework pointed out that switching from importing FamaQ to producing it in the UK is more economical. However, all these conclusions are hinged partly on the current economic conditions of the global economy. Thus, all the analysis will most likely be invalidated if there should be a sudden end to the current pandemic that has changed the global business landscape. Therefore, it is recommended that XLG persevere for about 2 years with the same supplier in Brazil to weather out the storm of the pandemic. After this, XLG can then judge what the post-pandemic economy is going to be before committing to producing FamaQ locally in the UK. In conclusion, the change in production conditions favour the switch from the Brazilian supplier to manufacturing FamaQ in the UK. However, XLG must carefully consider other economic factors apart from production costs in implementing its plans.

Reference

1. Atrill, P. and McLaney, E.J., 2018. *Financial accounting for decision makers*. Pearson Education.
2. BBC. (2020). *Fiat offices raided over diesel emissions fraud claims*. July 22, BBC News. Available at: <https://www.bbc.com/news/business-53504642>
3. Bol, J.C., 2011. The determinants and performance effects of managers' performance evaluation biases. *The Accounting Review*, 86(5), pp. 1549 – 1575.
4. Drury, C.M., 2013. *Management and cost accounting*. Springer.
5. Fullerton, R.R., Kennedy, F.A. and Widener, S.K., 2013. Management accounting and control practices in a lean manufacturing environment. *Accounting, Organizations and Society*, 38(1), pp. 50 – 71.
6. Fullerton, R.R., Kennedy, F.A. and Widener, S.K., 2014. Lean manufacturing and firm performance: The incremental contribution of lean management accounting practices. *Journal of Operations Management*, 32(7-8), pp. 414 – 428.
7. Horngren, C.T., Datar, S.M. and Rajan, M.V., 2015. *Cost accounting: A managerial emphasis*. Pearson Education, Inc.
8. Kaplan, R.S. and Atkinson, A.A., 2015. *Advanced management accounting*. PHI Learning.
9. Macintosh, N.B. and Quattrone, P., 2010. *Management accounting and control systems: An organizational and sociological approach*. John Wiley & Sons.
10. Moschuris, S.J., 2015. Decision-making criteria in tactical make-or-buy issues: an empirical analysis. *EuroMed Journal of Business*, 10(1), pp. 2 – 20.
11. Ramanathan, U. and Gunasekaran, A., 2014. Supply chain collaboration: Impact of success in long-term partnerships. *International Journal of Production Economics*, 147, pp. 252 – 259.
12. Shephard, R.W., 2015. *Theory of cost and production functions*. Princeton University Press.
13. Tulvinschi, M., 2010. Relevant Costs for Decision in an Effective Controlling System. *Theoretical & Applied Economics*, 17(5), pp 37 – 52.
14. Um, K.H. and Kim, S.M., 2019. The effects of supply chain collaboration on performance and transaction cost advantage: The moderation and nonlinear

effects of governance mechanisms. *International Journal of Production Economics*, 217, pp. 97 – 111.

15. Xu, S.X., Lu, Q., Huang, G.Q. and Zhang, T., 2013. Scope economies, market information, and make-or-buy decision under asymmetric information. *International Journal of Production Economics*, 145(1), pp. 339 – 348.