

Cost accounting – business analysis of barnes scuba diving

[Business](#), [Accounting](#)



In Barnes Scuba Diving case, the main comparison for the flexible-budget variance analysis would be between the actual results and flexible budget. Static budget would not be useful for this comparison due to the different sales unit output which may result in a misleading and inaccurate result comparison. With reference to the Flexible Budget Section attached in Annex X, Flexible-Budget Variance for Revenues was identified to be a favourable variance of \$50, 400 due to the fact that there was an increase of 216 participants on top of the budgeted 1800 participants and also an additional increased in course fee of \$25 on top of the budgeted \$350(selling price per unit).

This favourable variance was also supported with the calculation of the selling price variance. A closer look at the variance components reveals some major deviations from plan. Contradictory to the favourable variance for Sales Revenue, the overall contribution margin (-\$9057) and operating profit (-\$12, 057) reflected unfavourable variances instead. These unfavourable variances were caused by the more than required variable resources being consumed with Barnes bearing responsibility for all unforeseen situations that happened and absorbing the additional costs incurred.

Actual variable costs increased from \$218 to \$247. 50, causing an unfavourable flexible-budget variable cost variance of \$59 457. The next section, 3. 2 Variable and Fixed Variance Analysis, will look into the specific causes of this increased in cost and resources consumed. Understanding the reasons why actual results differ from budgeted amounts can help Barnes

better manage its costs and pricing decisions in the future. If Barnes have not been able to pass these costs on to customers, losses would have been considerable in the future.

Variable and Fixed Variance Analysis

Sales Volume and Selling Price Variance Analysis

Both Sales Volume and Selling Price variances reflected favourable variance as there was an increase in both the selling price per course and also increase in total number of participants (units). The increase in number of participants is not within Barnes Scuba Diving p of control, but it ultimately is an advantage to the company. However, the increase of selling price per course was dictated by the company and the reason for the increase was not justified in the case.

The case also did not reflect any complaints from customers or even loss of customers due to the increase selling price. Therefore, Barnes may consider to continue setting the selling price at \$375 or even compare this price with competitors to ensure it is not selling way below market rate which may result in forgone profit opportunities.

Direct Material and Indirect Material Variance Analysis

CertificatesThe unfavourable price (\$3, 628. 50) and quantity (\$11, 142) variances of certificates were caused mainly by the additional 403 certificate cards being consumed and increase of \$1. 50 per card by PADI. The additional 403 cards being consumed due to incorrect spelling of customer's names could have being avoided as it was a controllable situation by Barnes.

Barnes' administrative head should have been responsible and check on the work of Mia Fault before submission of the names, especially if she was a new staff.

Therefore direct material cost of \$7,858.50 ($\19.50×403) could have been avoided if the mistake was prevented. The additional cost of \$1.50 more than the standard cost of \$18 increased by PADI was an external factor and Barnes may not have control over it. However, Barnes may look into negotiating with PADI to forgo or lower the additional cost per certification cards due to the bulk purchases of cards from PADI annually. This negotiation if successful could have saved Barnes up to \$2,700 ($\1.50×1800 budgeted sales units).

Open

Water

Manuals

Price variance for the manuals reflected favourable variance (-\$6,300) due to a reduced in actual cost of \$2.50 from the standard cost. However, this reduce in cost comes at the expense of lower quality manual, causing a number of customers' manuals to fell apart and to be replaced free of charge. This resulted in more resources to be consumed, an additional 504 (25% \times 2,016 units) manuals cost to be incurred, which resulted in the unfavourable quantity variance (\$6,048).

An actual cost of \$4788 (504 units \times \$2.50) was incurred due to the manuals being replaced free of charge. Barnes had to bear responsibility to replace them free of charge as the low quality manuals were due to Barnes' decision to use cheaper printer. In this case, Barnes was still able to absorb the cost

of replacing the manuals free of charge as the total savings from using the cheaper printer is more than the total cost of replacing.

In the long run, Barnes may also have to consider if customers value of this manual, which was not mention in the case. If customer does not value the manual and Barnes can keep up with the cost of replacement, then using the cheaper printer may ultimate be an advantage to Barnes. This would be the trade-off that Barnes would have to consider for using cheaper quality printer.

Dive

Logbooks

The unfavourable price (\$1854. 40) and quantity (\$2419. 20) variances of dive logbooks were caused mainly by the additional 302 logbooks being consumed and increase cost of \$0. 80 per logbook. The increase cost from the standard cost \$8 was controllable by Barnes and justified with the improve quality of the logbook. This improvement in quality enhances customer's value of the logbook.

However, customers who lost the logbooks was an external factor uncontrollable by Barnes. Barnes does not need to bear responsibility to replace the logbook free of charge as it incurs additional cost. Since customers value the logbook, Barnes could have charge a nominal fee to replace the logbook to cover its cost, in which customer would not mind paying for if it was lost due to their carelessness. This could have prevented Barnes a cost of \$2657. 60 ($\8.80×302) from replacing the logbook free of charge.

T-Shirt/Sweater

The unfavourable price (\$7863) and quantity (\$9075) variances of T-Shirt/Sweater were due to the increase cost of \$3 per unit from standard cost and increase quantity of 605 units for replacement of wrong T-Shirt sizes. Barnes could have control the increase cost per unit by sourcing for cheaper supplier instead of settling for T-Shirt R Us, who charges more per unit. Likewise, since Barnes was confident that the wrong T-Shirt sizes orders were not their responsibility and have evidence to prove, Barnes could have insist the supplier to bear responsibility of the wrong T-Shirt sizes and return the wrong order.

Barnes would have prevented the additional cost of \$10890 (605 unitsX\$18) from incurring. Alternatively under the same situation, if Barnes could not get the supplier to be responsible for the wrong order, Barnes should not have given the extra T-shirts away to customers who wanted them. Barnes could have save the T-shirts for the next course intake for customers who may suit the size. However, it is advisable for Barnes to consider changing supplier as this supplier does not provide the appropriate service and product to Barnes' requirements.

3. 2. 2. 5 Indirect Material Variance Analysis

Cost of Variable Overhead Indirect Material were allocated base on cost of Direct Materials incurred. Therefore, an overall increase in cost of Direct Materials would definitely increase cost of Indirect Material since it is dependent on Direct Materials cost. Likewise, the problems encountered by Open Water Manuals, Logbooks and T-Shirts as listed in the sections above,

increases the spending of Indirect Materials. These resulted in unfavourable spending (\$6934. 40) and efficiency (\$6368) variances. If Barnes had look into reducing the cost and preventing the problems encountered in those Direct Materials, Barnes would have being able to reduce the variable overhead cost of Indirect material.

Direct Labour and Administration Variance Analysis

Direct Labour Rate Variance reflected an unfavourable variance of \$16, 800 due to the increase in cost of Instructor rate per hour from \$30 to \$32 and also increase of Direct Instructor hours from 8064 to 8400. Likewise, this increase of labour hours also caused the unfavourable direct labour efficiency variance. The increase cost was a controllable cost with Barnes wanting to pay its instructors competitively. Barnes would have to ensure that this cost has been factor into the selling price per course and passed on accordingly to the customers.

However, the increase in Direct Instructors Hours was due to an unforeseen bad weather, an uncontrollable event which resulted 336 hours of courses being postponed. Barnes should not have bear responsibility for this problem and pay the instructors twice for this 336 hours being rescheduled. Barnes could have save a cost of \$10, 752 per instructor. With Variable Overhead Administrative Cost allocated according the Direct Instructors Hours, the increase in Direct Instructor Hours also resulted in the administrative variable overhead efficiency to reflect an unfavourable variance (\$1713. 60).

Therefore, if Barnes had not bear the cost of spending on the extra hours, the overhead efficiency variance would have been favourable. Contradictory,

the administrative overhead spending variance was favourable (-\$14, 280) due to a major reduce in actual administrative cost per unit from \$5. 10 to \$3. 40. This could be due to Barnes effective management and reduce of required costs.

Other Overhead Variance Analysis

Petrol

Petrol Variable Overhead Variance reflected an unfavourable variance of \$2, 419. 20 due to the increase in cost of Petrol rate per km from \$0. 80 to \$1 and also increase of distance travelled from 10080km to 12096km. Likewise, this increase of distance travelled also contributed to the unfavourable direct labour efficiency variance. In this case, the increases in cost and distance travelled were external factors and uncontrollable by Barnes, therefore Barnes would have to ensure that this costs are passed on appropriately to the customers for the period.

Advertising

Advertising Variable Overhead Spending variance was favourable (-\$4032) mainly due to a huge reduce of advertising cost per course from \$60 to \$48. Although the efficiency variance was unfavourable (\$2160) due to the increase in number of courses, this is justifiable as the advertising cost incurred has brought in more customers than budgeted which may require more courses to be conducted. Likewise, Barnes reduce of advertising cost per course was proven effective with a saving of \$4032 actual variable cost and also an increase in number of customers.

| Fixed | Overhead | Variance | Analysis |
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Although fixed overhead costs were unavoidable regardless of situations, Barnes actual Fixed Overhead Variance had reflected an unfavourable variance of \$3000 in total. There were decrease in fixed advertising and other costs, likewise there was a correction of fixed depreciation cost which are positive sign of Barnes effective internal management. However, main contributors to the increase of fixed cost were identified to be Rent and Insurance, in both cases maybe external and uncontrollable to Barnes.

The increase in fixed Insurance costs may be justified by the increase in participants and courses. However, Barnes may want to look into the Fixed Rent cost which had doubled from the budgeted \$9000 to \$18000. Barnes may want to negotiate with the landlord to reduce cost with its long term rental contract.