

ABS Costing Income Statement CH Twelve

| Egnatia Inc. Absorption-Costing Income Statement For the First Year of Operations | | |
|---|-----------|-----------|
| Sales (Units Sold × Sale Price) | \$XXX,XXX | \$XXX,XXX |
| Cost of goods sold (Units Sold × ABS COGS) | \$XXX,XXX | \$XXX,XXX |
| Less: Over Applied overhead* | X,XXX | |
| Gross profit | XXX,XXX | XXX,XXX |
| Less: Selling and administrative expenses** | XXX,XXX | XXX,XXX |
| ** (Units sold × \$(x)/unit = XX,XXX) + \$XXX,XXX fixed S&A = XXX,XXX | | |
| Operating income | \$XXX,XXX | \$XXX,XXX |

Variable Costing Income Statement

| Egnatia Inc. Variable-Costing Income Statement For the First Year of Operations | | |
|---|---------------|---------------|
| Sales (###,### × \$\$\$) | | \$\$\$,\$\$\$ |
| Variable cost of goods sold (###,### × \$\$\$) | \$\$\$,\$\$\$ | |
| Add: Underapplied variable overhead Given | \$,\$\$\$ | (\$,\$\$\$) |
| Variable selling expense (###,### × \$) | | (\$,\$\$\$) |
| Contribution margin | | \$\$\$,\$\$\$ |
| Less: | | |
| Fixed factory overhead (Calculated) | \$,\$\$\$ | |
| Selling and administrative expenses (given) | \$\$\$,\$\$\$ | \$\$\$,\$\$\$ |
| Operating income | | \$\$\$,\$\$\$ |

Reconcile the difference between the two income statements.
 =Fixed OH/Unit x Remaining units in inventory
 =difference between to income statements

Ch Sixteen

| Harrison, Inc. Interim Standard Performance Report: Quality Costs For the Year Ended December 31, 2011 | | | |
|--|--------------|----------------|-------------|
| | Actual Costs | Budgeted Costs | Variance |
| Prevention costs: | | | |
| Quality audits x #x \$,\$\$\$ | \$,\$\$\$ | \$,\$\$\$ | \$ |
| Vendor certification #x \$,\$\$\$ | \$,\$\$\$ | \$,\$\$\$ | \$ |
| Total prevention costs | \$,\$\$\$ | \$,\$\$\$ | \$ |
| Appraisal costs: | | | |
| Product acceptance #x \$,\$\$\$ | \$,\$\$\$ | \$,\$\$\$ | \$ |
| Process acceptance #x \$,\$\$\$ | \$,\$\$\$ | \$,\$\$\$ | \$,\$\$\$ F |
| Total appraisal costs | \$,\$\$\$ | \$,\$\$\$ | \$,\$\$\$ F |
| Internal failure costs: | | | |
| Retesting \$,\$\$\$ x ##% | \$,\$\$\$ | \$,\$\$\$ | \$,\$\$\$ U |
| Reworks \$,\$\$\$ x ##% | \$,\$\$\$ | \$,\$\$\$ | \$,\$\$\$ U |
| Total internal failure costs | \$,\$\$\$ | \$,\$\$\$ | \$,\$\$\$ U |
| External failure costs: | | | |
| Recalls \$,\$\$\$ x ##% | \$,\$\$\$ | \$,\$\$\$ | \$ |
| Warranty \$,\$\$\$ x ##% | \$,\$\$\$ | \$,\$\$\$ | \$,\$\$\$ U |
| Total external failure costs | \$,\$\$\$ | \$,\$\$\$ | \$,\$\$\$ U |
| Total quality costs | \$,\$\$\$ | \$,\$\$\$ | \$,\$\$\$ U |
| Percentage of sales | %,%,% | %,%,% | %,%,% U |

Calculate the budgeted costs for 2013 and prepare an interim quality performance report.

The Taguchi Loss Function CH Sixteen

Given: Target Value (X) and K = \$X
 Unit No. Actual Diameter y - T (y - T)² k(y - T)²

Taguchi Loss Function Ch Sixteen

QL Quality Loss

K c/d²

C Loss at the lower or upper spec limit

D Distance of limit from target value

Y Actual value of Quality

T Target Value of Quality

Ch.Thirteen Ext. Linkages ABS Supplier Costing

| | Wood | Gardner |
|-------------------------------|---------------|---------------|
| Purchase cost: | | |
| \$\$\$ × ###,### | \$\$\$,\$\$\$ | \$\$\$,\$\$\$ |
| \$\$\$ × #,###,### | | |
| Inspecting components: | | |
| \$\$\$ × #,### | \$\$\$,\$\$\$ | |
| \$\$\$ × #,### | | \$\$\$,\$\$\$ |
| Expediting work: | | |
| \$\$\$ × #,### | \$\$\$,\$\$\$ | |
| \$\$\$ × #,### | | \$\$\$,\$\$\$ |
| Reworking products | | |
| \$\$\$ × #,### | \$\$\$,\$\$\$ | |
| \$\$\$ × #,### | | \$\$\$,\$\$\$ |
| Warranty work: | | |
| \$\$\$ × #,### | \$\$\$,\$\$\$ | |
| \$\$\$ × #,### | | \$\$\$,\$\$\$ |
| Total supplier cost | \$\$\$,\$\$\$ | \$\$\$,\$\$\$ |
| Units supplied | + ###,### | + ###,### |
| Unit cost | \$ \$\$\$ | \$ \$\$\$ |

*Rounded to the nearest cent.

Calculate the cost per component for each supplier, taking into consideration the costs of the quality-related activities and using the current prices and sales volume.

Organizational Activities and Drivers

| Structural Activities | Structural Cost Drivers |
|---|--|
| Building Plants | Number of plants, scale, degree of centralization |
| Management Structuring | Management style and philosophy |
| Grouping Employees | Number and type of work units |
| Complexity | Number of product lines, number of unique processes, # of unique parts, degree of complexity |
| Vertically Integrating | Scope, buying power, selling power |
| Selecting and using processing technologies | Types of process technologies experience |
| Execuational Activities | Execuational Cost Driver |
| Using Employees | Degree of involvement |
| Providing Quality | Quality management approach |
| Providing Plant Layout | Plant layout efficiency |
| Designing and Producing Prod | Product configuration |
| Providing Capacity | Capacity utilization |

Sales Mix Variances Ch.Twelve

[(Product 1 Act Units Sold - Product 1 Budget Units Sold) x (Product 1 Budget CM [Per Unit] - (Budget Avg Unit CM) + (Product 2 Act Units Sold - Product 2 Budget Units Sold) x (Product 2 Budget CM [Per Unit] - (Budget Average Unit CM)]

Ch Thirteen Activity-Based Supplier Costing

| | Smith Glass | | Wolf Glass | |
|---------------------------|------------------|------------------|------------------|------------------|
| | Side | WS | Side | WS |
| Adverse purchases: | | | | |
| \$\$\$ × ### | \$\$\$,\$\$\$ | | \$\$\$,\$\$\$ | |
| \$\$\$ × ### | | | | \$\$\$,\$\$\$ |
| \$\$\$ × ### | | \$\$\$,\$\$\$ | | |
| \$\$\$ × ### | | | | \$\$\$,\$\$\$ |
| Returns: | | | | |
| \$\$\$ × ### | \$\$\$,\$\$\$ | | | |
| \$\$\$ × ### | | | \$\$\$,\$\$\$ | |
| \$\$\$ × ### | | \$\$\$,\$\$\$ | | |
| \$\$\$ × ### | | | | \$\$\$,\$\$\$ |
| Total costs | \$\$\$,\$\$\$ | \$\$\$,\$\$\$ | \$\$\$,\$\$\$ | \$\$\$,\$\$\$ |
| Units | + \$\$\$,\$\$\$ | + \$\$\$,\$\$\$ | + \$\$\$,\$\$\$ | + \$\$\$,\$\$\$ |
| Unit cost | \$ \$\$\$ | \$ \$\$\$ | \$ \$\$\$ | \$ \$\$\$ |
| Unit purchase cost | \$\$\$,\$\$\$ | \$\$\$,\$\$\$ | \$\$\$,\$\$\$ | \$\$\$,\$\$\$ |
| Total unit cost | \$ \$\$\$,\$\$\$ | \$ \$\$\$,\$\$\$ | \$ \$\$\$,\$\$\$ | \$ \$\$\$,\$\$\$ |

Calculate the activity rates for assigning costs to suppliers

Operational Activities and Drivers

| Unit-Level Activities | Unit-Level Drivers |
|--------------------------|---------------------------|
| Grinding Parts | Grinding Machine Hours |
| Assembling Parts | Assembly Labour Hours |
| Drilling Holes | Drilling Machine Hours |
| Using Materials | Kilograms of Materials |
| Using Power | Number of Kwatt hours |
| Batch-Level Activities | Batch-Level Drivers |
| Setting up equipment | Number of Setups |
| Moving Batches | Number of Moves |
| Inspecting Batches | Inspection Hours |
| Reworking Products | Number of Defective Units |
| Product-Level Activities | Product-Level Drivers |
| Redesigning Products | # of change orders |
| Expediting | # of late orders |
| Scheduling | # of different products |
| Testing products | Testing Hours |

Examples of Quality Costs by Category

| Prevention Costs | Appraisal (Detection) Costs |
|---------------------------|----------------------------------|
| Quality Engineering | Inspection of Materials |
| Quality Training | Packaging Inspection |
| Recruiting | Product Acceptance |
| Quality Audits | Process Acceptance |
| Design Reviews | field Testing |
| Quality Circles | Continuing Supplier Verification |
| Marketing Research | |
| Prototype Inspection | |
| Vendor Certification | |
| Internal Failure Costs | External Failure Costs |
| Scrap | Lost Sales |
| Rework | Lost Market Share |
| Downtime (Defect-Related) | Customer Dissatisfaction |
| Reinspection | Ill Will |
| Retesting | Returns/Allowances |
| Design Changes | Recalls |
| Repairs | Warranties |
| | Discounts due to defects |
| | Product Liability |
| | Complaint Adjustment |

