Shut down or Continue Decision in Management Accounting

Loss-making segments of a business such as products, customers, and locations can be a significant drain on the resources of an organization.

Keeping a segment of business that is consistently generating a loss can be hard to justify, especially if its economics are unlikely to improve in the future.

Shutdown decisions can,however, be daunting for a business because of the time and resources invested in the failing enterprise. Shutdown problems should also consider the long-term implications of the decision.

Shutdown problems can be simplified into short-term decisions by applying the principles of relevant costing.

Shutdown Point

Theoretically, a business should discontinue any activity that does not generate sufficient funds to pay for its expenses in the long term (i.e., positive net cash flow).

When assessing shutdown problems, it is essential to consider only the relevant costs of business activity.

Examples of relevant costs include:

- Variable expenses such as direct material and direct labor;
- Direct fixed costs which are avoidable in case of a closure;
- Opportunity cost of continuing a business activity.

Examples of non-relevant costs include:

- Non-cash expenses (e.g., depreciation);
- Sunk cost (e.g., cost of machinery);
- Committed expenses which are unavoidable;
- 'One-off' revenues and expenses (e.g., sale of machinery, redundancy payments, etc.) that do not reflect the underlying profitability of the business.

Example

GreenFarms produces organic apples, oranges, and grapes.

GreenFarms is struggling to make a profit from oranges for several years. The farm manager does not expect the situation to improve in the coming years because of the rising cost of inputs.

Performance report of oranges for the last year is as follows:

	$
Sales	50,000
Variable Cost:	
Direct Labor	(10,000)
Direct Materials	(5,000)
Variable Overheads	(5,000)
Fixed Cost:	
Depreciation	(15,000)
Plantation	(5,000)

Lease Premium	(5,000)
Salary	(10,000)
Head Office Allocation	(5,000)
Net Income	**(5,000)**

Additional information:

1. Variable costs are avoidable if GreenFarms discontinues the production of oranges.
2. Depreciation relates to machinery purchased six years ago for $80,000. The machine will need to be replaced after four years at the estimated cost of $100,000.
3. Plantation cost represents the amortization of initial cost incurred in growing orange trees over its fruiting life (10 years). New orange trees will be planted after four years to replace the old trees at an expected cost of $50,000.
4. GreenFarms leased the land on which it grows oranges six years ago by paying the rent in advance. The lease term expires in 20 years.
5. Salary relates to the supervisor of oranges crop.
6. Administrative expenses are apportioned based on the sales revenue from each fruit and charged as 'head office allocation'. If GreenFarms discontinues the production of orange, head office expenses are likely to reduce by $3000.
7. If the land used for cultivating oranges is freed up, it could be sub-leased at $7,000 per annum.

Advise whether GreenFarms should discontinue farming oranges?

We need to re-calculate the annual net cash flow from Oranges based on relevant cash flows.

	$	
Sales	50,000	
Variable Cost:		
Direct Labor	(10,000)	
Direct Materials	(5,000)	
Variable Overheads	(5,000)	
Fixed Cost:		
Depreciation	-	Depreciation is not relevant as it is a non-cash expense. Cost of acquiring machinery ($80,000) is a sunk cost which we can ignore. We can also ignore the future cost of replacing machinery as it is not a required expenditure at this stage.
Plantation/Amortization	-	Amortisation is a non-cash expense just like depreciation. Initial plantation expense is a sunk cost and therefore not relevant either. We can also ignore the cost of replacing plants as it can be deferred until four years.
Lease Premium	-	
Salary	(10,000)	
Head Office	(3,000)	This is the relevant portion of head office cost

Allocation		that is avoidable.
Opportunity cost	(7,000)	Continuing production of oranges carries an opportunity cost of $7000.
Net Income	**10,000**	

Because the production of oranges is currently generating positive earnings when considering its relevant costs, it makes sense to continue its farming until a significant capital investment is required.

GreenFarms should conduct a comprehensive investment appraisal before committing to any additional capital investment required after four years.

The decision should be revisited if there is a noticeable drop in the profitability of oranges.

Qualitative factors

A decision to discontinue a business operation should not be based entirely on its short-term profitability.

The following factors must be taken into account when considering shutdown problems.

- **Strategic fit**
  Does the location, product, or customer have any strategic significance to the business that outweighs any short-term losses?

- **Customer relations**

  Discontinuing a product line may cause an adverse reaction from customers (e.g., discontinuation of spare parts).

- **Supplier relations**

  Relationship with suppliers may suffer if a product line is dropped, causing loss of goodwill.

- **Employee relations**

  Shutting down may cause redundancies, which could hurt staff morale.

- **Loss leader**

  Certain products are not profitable on their own, but they may help generate sales for other products that are more profitable.

- **Timing of shutdown**

  If a shutdown is inevitable, the timing of the move should be considered carefully to minimize the potential losses.

SOURCE: https://accounting-simplified.com/management/relevant-costing/shutdown-decisions.html