COVER PAGE AND DECLARATION

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Introduction:

The discovery, measurement, analysis, and interpretation of accounting information in order to use it to support managers in making strategic operational choices is a matter of urgency in any business, the managerial accounting (sometimes referred to as cost accounting or management accounting) is one of the accounting specializations that provides the important information and analysis that managers need to take the right decision and build a solid plan.

and to clarify the important role of managerial accounting in this regard we have a case study with a company called Swipes 50 Limited that produces screen protectors for laptop computers. where the managers there are interested in assessing the product costing process and analysing the impact of both absorption and variable costing on the company's profitability, while the company is prioritizing streamlining its production process. In this context, we will prepare a report showing profit statement for the company using both methods while taking into account the financial information provided and reconciling the profit estimated using both costing ways. Additionally, it explains differences between the two approaches and offers advice to the company to improve its accounting system.

1- Prepare a profit statement for Swipe 50 Limited for the month of February and March:

The available information:

Items	February	March
Production (units)	12,500	14,500
Sales (units)	11,500	15,500
Direct Materials	€ 29,000	€ 33,250
Direct Labour	€ 19,000	€ 22,000
Variable Production Overhead	€ 7,300	€ 8,500
Total Selling and Administrative Expenses	€ 44,500	€ 57,100

Additional Information:

1. production capacity 20,000 units per month.
2. Fixed production overheads are €28,600 per month.
3. Selling price €22 per unit.
4. On 31st January, the company's warehouse has no inventory.
5. Fixed and variable elements (variable portion is incurred based on units sold) are included in the total administration expenses.

Sales revenue for the month of February: 11,500 *22 = € 253,000

Sales revenue for the month of March: 15,500 *22 = € 341,000

Calculation the variable and fixed selling and administrative expenses:

Variance of total selling and administrative expenses: 57,100 – 44,500 = € 12,600

Variance of units sold: 15,500 – 11500 = 4000 units

Variable selling and administrative expenses per unit = 12,600 / 4000 = € 3.15

variable selling and administrative expenses for the month of February = 11,500 * 3.15 = € 36,225

variable selling and administrative expenses for the month of March = 15,500 * 3.15 = € 48,825

Fixed selling and administrative expenses for the month of February = 44,500 - 36,225 = 8,275

Fixed selling and administrative expenses for the month of March = 57,100 - 48,825 = 8,275

1-1 Income statement using absorption costing:

First, we will calculate the cost per unit, as absorption cost formula = (Direct labour cost + Direct material cost + Variable manufacturing overhead cost + Fixed manufacturing overhead) / No. of units produced.

Particulars	February	March
Production (units)	12,500	14,500
Direct Materials	29,000	33,250
Direct Labour	19,000	22,000
Variable Production Overhead	7,300	8,500
Fixed production overheads	28,600	28,600
Total production cost	83,900	92,350
cost per unit	6.712	6.368

Income statement using absorption costing for the month of February

Particulars	**Amount**	**Amount**
Sales (11500 units)		**253,000**
Less: Cost of goods sold		
Less: Cost of goods available for sale	83,900	
Opening Inventory	0	
Add: Closing Inventory (1000 units)	6,712	**77,188**
Gross profit		**175,812**
Less: total Selling and Administrative Expenses		
Variable selling and administrative expenses	36,225	
Fixed Selling and administrative expenses	8,275	**44,500**
Net Operating income		**131,312**

Income statement using absorption costing for the month of March

Particulars	Amount	Amount
Sales (15500 units)		**341,000**
Less: Cost of goods sold		
Less: Cost of goods manufactured (14500 units)	92,350	
Opening Inventory (1000 units)	6,712	
Add: Closing Inventory	0	**99,062**
Gross profit		**241,938**
Less: total Selling and Administrative Expenses		
Variable selling and administrative expenses	48,825	
Fixed Selling and administrative expenses	8,275	**57,100**
Net Operating income		**184,838**

1-2 Income statement using variable costing:

First, we will calculate the cost per unit as variable costing formula = (Direct Labour Cost + Direct Material Cost + Variable Manufacturing Overhead)/Number of Units Produced.

Particulars	February	March
Production (units)	12,500	14,500
Direct Materials	29,000	33,250
Direct Labour	19,000	22,000
Variable Production Overhead	7,300	8,500
Total variable production cost	55,300	63,750
cost per unit	4.424	4.40

Income statement using variable costing for the month of February

Particulars	Amount	Amount
Sales (11500 units)		**253,000**
Less: Variable Cost of goods sold		
Add: Variable Cost of goods manufactured (12500 units)	55,300	
Opening Inventory	0	
Less: Closing Inventory (1000 units)	4,424	**50,876**
Gross contribution margin		**202,124**
Less: Variable selling and administrative expenses	36,225	**36,225**
Contribution margin		**165,899**
Less: Period Expenses		
Fixed production overhead	28,600	
Fixed Selling and administrative expenses	8,275	**36,875**
Net Operating income		**129,024**

Income statement using variable costing for the month of March

Particulars	Amount	Amount
Sales		**341,000**
Less: Variable Cost of goods sold		
Add: Variable Cost of goods manufactured (14500 units)	63,750	
Opening Inventory (1000 units)	4,424	
Add: Closing Inventory	0	**68,174**
Gross contribution margin		**272,826**
Less: Variable selling and administrative expenses	48,825	**48,825**
Contribution margin		**224,001**
Less: Period Expenses		
Fixed production overhead	28,600	
Fixed Selling and administrative expenses	8,275	**36,875**
Net Operating income		**187,126**

2- Reconciliation the profit calculated using absorption costing to that using variable costing:

we can reconcile net income under variable costing with net income under absorption costing by:

1- Adding the fixed production overhead deferred due to increase in closing inventory.

2- Subtracting the fixed production overhead overcharged due to no closing inventory.

Formula: fixed production overhead per unit = Fixed production overhead / manufactured units

Fixed production overhead per unit = 28,600 / 12,500 = € 2.288

Particulars	February	March
Net operating income under variable costing	**129,024**	**187,126**
Add: Fixed production overhead deferred due to increase in closing inventory (1000 units *2.288)	2,288	
less: Fixed production overhead overcharged due to no closing inventory (1000 units * 2.288)		2,288
Net operating income under absorption costing	**131,312**	**184,838**

3- The differences between absorption costing and variable costing and the importance of each method:

In general, the differences between absorption costing and variable costing lie in handling fixed overhead costs. where absorption costing allocates fixed overhead costs across all units produced for the period. while variable costing combines all fixed overhead costs and reports the expense as one line item separate from the cost of goods sold (COGS) or still available for sale.

And here are the main differences between the two methods:

Basis	Absorption costing	Variable costing
Costs	Absorption costing includes both variable costs and fixed costs related to production process. Which means, all direct costs, fixed overheads, and variable manufacturing overheads apply to product cost	Variable costing includes only those variable costs that are directly incurred in production. Which means, Variable costs are applied only to the cost of the product; Fixed overhead costs are charged as an expense in the period in which they occur
Alternate names	Full costing is another name for absorption costing.	Marginal costing and direct costing are other names for variable costing.
Use	- Absorption costing is employed for the purpose of filing taxes as well as reporting to the external stakeholders. - It complies with both IFRS and GAAP (Generally Accepted Accounting Principles) (International Financial Reporting Standards). - It is used for calculation of the fixed overhead cost per unit.	-The internal reporting typically makes use of variable costs. Variable costing is the foundation for managerial decisions. - It determines a lump-sum for fixed overhead costs.
Relevance	Absorption costing is used to determine per-unit costs according to all costs, including fixed overhead costs.	Comparing the profitability of various product lines is done using variable costing

Reporting	The basis for absorption costing is the external reporting guidelines provided by external organizations.	Variable costing is used based on internal reporting and presentation requirements.
Inventory	When using absorption costing, all manufacturing costs are taken into account and added to inventory and work-in-progress. Inventory value includes direct material, direct labour, and all overhead.	Only variable production costs are included in variable costing, and they are allocated to inventories, work-in-progress, and cost of goods sold. Inventory value does not include fixed overhead.
Contribution	Absorption costing is used to calculate the net profit.	Variable costing calculates contribution which is the difference between sales and variable cost of sales.
Profit and price impact	- It is significantly more challenging to forecast how changes in sales will affect profit. -Using the absorption costing method will result in increased COGS, which will increase the companies' breakeven price for manufacturing per unit. Customers will also pay a somewhat higher retail price as a result. Additionally, it implies that businesses would probably display a reduced gross profit margin.	- Since profit is a function of sales, it is easy to forecast. - With COGS, variable costs will lead to a lower breakeven price per unit. Determining the optimal price for a product may become slightly more challenging as a result. A little larger gross profit is the outcome of variable costing. Consequently, compared to absorption costing, which leads to a greater gross profit margin.

Briefly, the majority of companies will use the absorption costing method If they have COGS. Additionally, it can be necessary for external reporting needs because it is the only technique that complies with GAAP. Companies can decide that using absorption costing alone is more effective.

Use of the variable costing approach, or at least its calculation in dashboard reporting, may be advantageous depending on the business model of a company and its reporting needs. Managers should be aware that both absorption costing and variable costing are alternatives when evaluating their company's COGS cost accounting procedure.

What is the importance of absorption and variable costing methods?

Absorption costing guarantees more precise accounting for ending inventory since the costs associated with that inventory are tied to the total cost of the inventory that is still in stock. The amount of expenses that are actually recorded in the current period on the income statement decreases as more costs are accounted for in unsold products. In comparison to calculations using variable costing, this leads to an estimate of net income that is larger.

Variable costing is a crucial step in the management decision-making process. Given that fixed costs have already been incurred and are irreversible, these costs are more important and call for direct management engagement. It assists in resolving issues with the allocation of fixed expenses, which can occasionally be challenging to separate, and makes comparisons between the profitability of various business units more meaningful because it is cantered on variable cost variables.

4- Three ways that Swipes 50 Ltd. can improve its accounting systems:

Management accounting system is an important category of complete accounting system and improving the process of management accounting system will directly improve the accounting performance of an entity. The main purpose of management accounting system is to provide sufficient quantitative and qualitative information on company's operational as well as financial performance. Management accounting provides information to the managers or owners of the company and helps them to make the economic decisions through use of budgeting technique and apply controls on the variances noticed from actual result and budgeted results. So, company can use management accounting as a resource planning tool as it focuses on future and it can also be used as instrument for controlling resources due to its ability to focus on present. So, it can be said that way to success and to increase profitability performance of any entity it is important to build rigorous management accounting system that ensure all the cost elements are in place and are properly controlled (Rasmussen, 2013).

And before answering how we can improve the accounting system; we have to ask why any company should improve its accounting system.

There are many benefits for improving the accounting system like:

- **Increase efficiency**: surly, the automated accounting system will increase the efficiency and productivity of finance team through:
  - Save a huge time comparing to traditional work, and this allows the team to focus on other tasks.
  - Allows the team to generate the required reports any time.
  - Recording, saving, and reviewing all transactions.

- Increase accuracy: the accounting accuracy will increase when the accounting system is improved. outwitting a machine when it comes to numbers is not easy task. using modern accounting solutions might significantly increase your protection against tax fines, cash flow problems, internal fraud, and, in the worst situation, business failure.

- Decrease cost: an ineffective system will cost the company a lot of money, time, and efforts and then a lot of mistakes in the work which result in unnecessary expenses.

And now, how the company can improve its accounting system?

There are numerous ways to maintain your accounting system updated and relevant to your company, like:

1- **Using the right accounting software for the business:** where there are hundreds of different accounting software that offer different tools, features, and capabilities. The company must conduct a comprehensive study before choosing the system, and the chosen system must fit the needs and volume of business. the finance team with IT team and all respective people in the company must listing the needs of business considering the constant development and expansion for the business, furthermore, the modern technologies in accounting software. For example, the software should include the following features:

   - Capability of recording all transactions and generation all basic statements such as balance sheet, income statement, cash flow statement, etc.., additional to advanced reporting and analysing that prevent from the need to external help or the traditional office programs.
   - Capability of doing the key tasks like billing, invoicing, payments processing system, electronic tax payment, payroll management, and inventory management.

- Capability to keep up with modern technologies such as the different payment methods, online working, and integration with the tablets and mobiles.

2- **Automating the system as much as possible:** The back-office workload will be greatly decreased and the financial data will be improved by using technology to optimize, automate, streamline, and integrate as many elements of the company's bookkeeping and accounting procedures as feasible. if we have more accurate, current financial information, we may track the business's key performance metrics to enhance the business plan and operations. The accounting system changes from a compliance and tax machine to a strategic financial centre with smart time-tracking, expense tracking, payables, and invoicing software and applications. the smart and up to date bookkeeping and accounting department can assist the company strategically reducing expenses, optimizing pricing and procedures, maximizing the use of the marketing budget, increasing profitability, and expanding the company.

   Furthermore, there are many benefits to automating accounting system, such as:

   - The time saved by automation is enormous, by minimizing downtime when performing accounting duties, you may give your staff members more time and energy to focus on other crucial areas of your company.
   - Not to mention, automation also massively reduces the risk of inaccuracies or human mistakes, financial reports may suffer greatly if a part of data is incorrect. That risk is not present with automation.
   - It shields you from the snowball effect of human error as well as from fraud or other nefarious attempts to harm your company. It is obvious from the standpoint of security and compliance.
   - Reliability: the majority of popular software packages make it easy to use the program. Because the math is precise and trustworthy, management can always accurately know all transactions occurred.

3- **Planning ahead:** What are the financial objectives that you have for your company? There are accounting systems that can be useful if you are unsure. With the correct business accounting system, you can use the data and insights to develop a workable plan that will help you advance your business.

5- Why managing accounting jobs are important in a manufacturing company:

Generally, the management accounting can help any business to make the right business decisions and avoid costly mistakes. the company frequently needs to make rapid and decisive decisions, in order to increase revenue and market competitiveness. For that, management needs to have insight into all facts of business operations to determine next steps. Therefore, the key role of management accounting may be to provide performance and financial information that allows decision makers to formulate further plans according to the available information.

Managerial accounting practices also play a vital role in corporate governance.

Charles Tilley, former CEO of the Chartered Institute of Management Accountants (CIMA), observed in 2014 that "over the last few years, we have all seen how globalization and the breakneck pace of technological progress are making change harder to predict and organizations more vulnerable. Management accountants have the ability and judgment to make objective ethical decisions that consider the public interest." Managerial accounting is thus instrumental to good customer relations and, by extension, strong reputation management. Even a handful of negative comments scattered across the internet can cost companies millions of dollars in annual sales.

We can explain in detail the role of management accounting in the following:

1- **Implement appropriate cost analysis**: relevant cost analysis enables the company to set aside all expenditures that are unimportant to the choice and concentrate on what matters most at that particular time.

Joe McLean stated: think about receiving a special order in the final week of the month. You need to come up with a price for such an order really fast so what you need to factor in only the data relevant to that particular order. Since salaries, factory lease, and other fixed costs are already included in regular monthly production expenses, the special order should include the cost of materials and labour needed for the production.

2- **Planning future business development:** You must be aware of your company's current status and keep track of your operations' financial trends in order to plan for a success future of your business. This will enable you to develop long-term plans for your business based on collected data. So, if you want to increase your production capabilities, expansion your business or enhancing your position in the market, management accounting can give you information on the ideal time to begin the process. Objectives above maybe cost money, take time, and frequently necessitate pausing operations for a while. Without the right information, it would be simple to choose poorly and end up paying more for the expansion than you had anticipated.

3- **Making effective production decisions:** when it comes to planning for a new product or service with many choices and you are confused to do it by yourself or by external help, management accounting can help you in making the best choice by comparing the costs and benefits of all options. Making the right choice can help the company avoid financial disaster and save money and time. Occasionally, modifying some of the existing production lines is more cost-effective than purchasing a new unit. However, there are times when using an outside vendor can result in greater financial gain. Therefore, it can be challenging to decide if it is more advantageous to develop a new product or subcomponent yourself or to contract with a third-party production company to do so.

4- **Making a proper budget decision:** Another important benefit of managerial accounting is the ability to create an effective budget that consider the right place for spending. Additional to that, managerial accounting helps you when preparing the budget to take into consideration the previous actions, unfinished projects, and potential future investments. Management accounting helps you when preparing the budget to provide each department of the company with the necessary funds.

5- **The ability to rational consumption of resources:** One of the most disturbing things for the manufacturers is the limited resources which we use on a daily basis. So, we need to an efficient and rational consumption for the materials as can as possible. and the management accounting play a key role in determine how to use fewer resources efficiently in order to keep the production continuing without affecting the quality of our products or their marketability.

Joe McLean stated: Analysing labour, materials, and other costs can allow us to see how we can do more with less. Per example, you can decide if you should cut down the number of employees in a certain department or move some of them to a section where more work is needed. Sometimes redesigning a product can lead to less material needed for production without the influence on the purpose and the quality of the product.

Conclusions:

we have reviewed above how to create an income statement for swipes 50 company using absorption and variable costing method separately and how to make reconciliation, then we explained the difference between the two methods and the importance of each. then we provided a proposal to improve the company's accounting system using different ways and finally we explained why the managing accounting is important for manufacturing companies.

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