

**ABSORPTION COSTING AND ACTIVITY-BASED COSTING METHODS IN
MANUFACTURING AND SERVICE SECTORS**

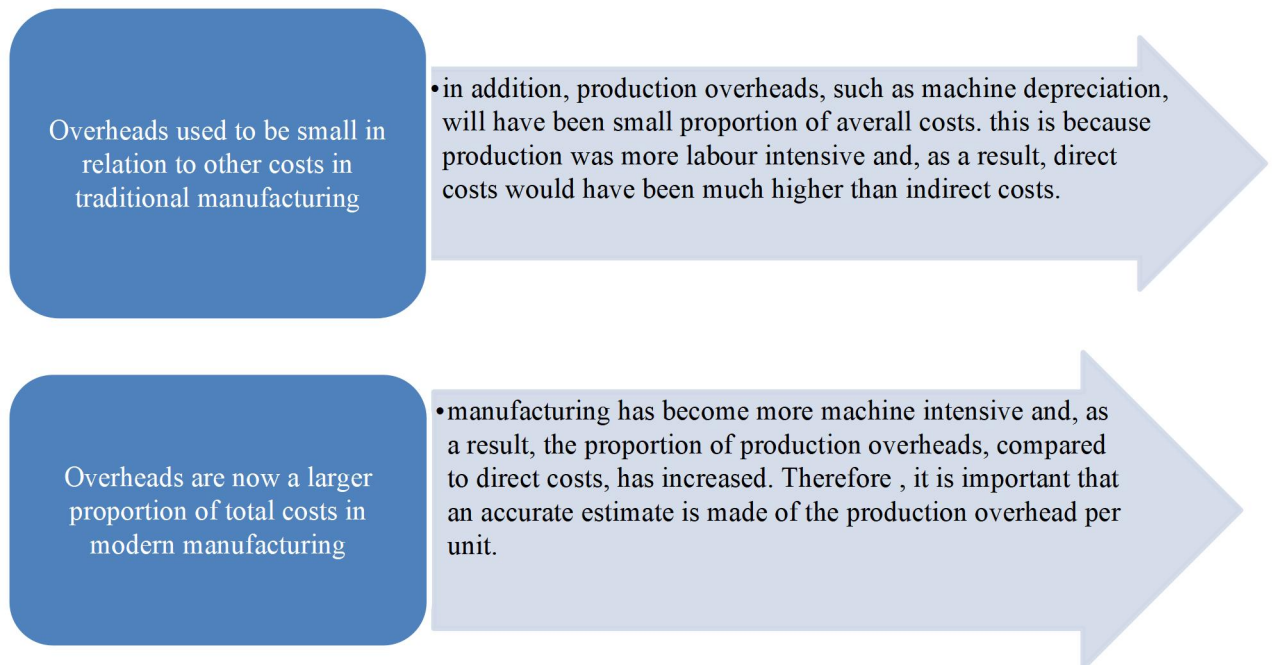
Bazarbayeva Umida Gulmirzayevna
Tashkent university for applied sciences

Annotation. This thesis is about cost management systems which play a crucial role in organizations by providing a structured approach to monitor, control, and optimize costs. These systems are researched to track and analyze expenses across various departments and activities, enabling businesses to make informed decisions and improve their financial performance. From a strategic perspective, cost management systems help organizations identify cost drivers, understand cost behavior, and allocate resources effectively. They also facilitate budgeting and forecasting processes, allowing businesses to set realistic financial targets and monitor their progress. When it comes to the importance of cost management systems, different stakeholders have varying perspectives. From the perspective of top management, these systems provide valuable insights into cost structures and help identify areas of inefficiency or waste. This enables management to take proactive measures to reduce costs, enhance profitability, and gain a competitive edge in the market. For finance departments, cost management systems streamline financial reporting and enable accurate cost allocation, ensuring compliance with accounting standards and regulations.

Key words. Accountants, traditional costing, indirect costs, cost driver, cost estimates, activity-based costing, cost behavior, business operations.

Introduction. Traditional costing is a method of cost allocation popular in the business for many decades. It originated in the early 20th century and was developed by accountants who were looking to allocate indirect costs to products and services in a systematic way. The method involves allocating indirect costs, like overhead, to products based on a predetermined cost driver, such as direct labor or machine hours. The cost driver choice depends on the assumption that the cost of producing a product or providing a service is directly proportional to the volume of resources available. While the traditional costing method is already popular in business, its limitations have become more apparent in the modern business environment. One of the main limitations is that it needs to consider the complexity of contemporary production processes. And the diverse range of activities involved in producing goods and services. This can lead to inaccuracies in cost estimates, particularly for products that consume different levels of resources. Many companies use complex costing methods like activity-based costing (ABC). This provides a more comprehensive and accurate view of cost behaviour. And thus is better suitable for modern business operations complex and diverse nature.

Materials and methods. Absorption costing is based on the principle that production overheads are driven by the level of production. This is because the activity level in the OAR calculation can be units, labour hours or machine hours. These all increase as the level of production increases. This was true in the past, because businesses only produced one single product or a few single and similar products.



Graph 1. Using overheads systems in traditional manufacturing and modern manufacturing

The nature of manufacturing has changed. Many companies must now operate in highly competitive environment and, as a result, the diversity and complexity of products has increased.

Traditional systems measure accurately volume-related resources that are consumed in proportion to the number of units produced of the individual products. Such resources include direct materials, direct labour, energy, and machine-related costs. However, many organizational resources exist for activities that are unrelated to physical volume. Non-volume related activities consist of support activities such as, materials handling, material procurement, set-ups, production scheduling and first item inspection activities. Traditional product-cost systems, which assume that products consume all activities in proportion to their production volumes, thus report distorted product costs.

Activity-based costing establishes separate cost pools for support activities such as material handling. As the costs of these activities are assigned directly to products through cost driver rates, reapportionment of service department costs is avoided. The use of cost drivers is the main idea behind ABC as they highlight what causes costs to increase – for example, the number of orders to suppliers each product incurs. Overheads that do not vary with volume/output, but with some other activity, should be traced to products using ABC cost drivers. Traditional costing, on the other hand, allows overheads to be related to products in more arbitrary ways- therefore producing less accurate product costs

Table 1.

Calculating the full production cost per unit using ABC (there are five basic steps):.

Step 1	Identify the organization's major activities. Then can group the production overheads incurred into cost pools according to
--------	--

	how they are driven. A cost pool is a collection of overheads costs associated with each of the specific activities identified.
Step 2	Identify cost drivers for each activity, i.e. what causes the costs related to this activity to be incurred. A cost driver is a factor that influences the level of cost.
Step 3	Calculate a cost driver rate for each activity The cost driver rate is calculated in the same way as the absorption costing OAR. However, a separate cost driver will be calculated for each activity, by taking the activity cost and dividing by the total cost driver volume.
Step 4	Absorb the activity costs into the product. The activity costs should be absorbed back into the individual products.
Step 5	Calculate the full production cost and/or the total profit or loss

To measure the cost of a service and take into account resource costs, the resource used must be measured-which often means recording time spent. Timesheets allow accountability for what people are actually doing and for this cost then to be allocated to services. This is a challenge for the public sector, and for those that wish to use ABC or take a similar approach, a culture change is definitely required.

Analysis and result. Absorption-costing, or full costing, has for years been the most common method of allocating manufacturing overhead. This approach takes the full amount of manufacturing overhead and spreads it equally across the production volume of all products. It does not consider that certain products may be responsible for more or fewer costs from specific activities. Activity-based costing, also known as ABC, deals with this problem. This method, actually, has both merits and demerits, such as:

Advantages of Activity-Based Costing:

- Provides realistic costs of manufacturing for specific products
- Allocates manufacturing overhead more accurately to products and processes that use the activity
- Identifies inefficient processes and target for improvements
- Determines product profit margins more precisely
- Discovers which processes have unnecessary and wasted costs
- Offers better understanding and justification of costs in manufacturing overhead

Disadvantages of Activity-Based Costing:

- Collection and preparation of data is time-consuming
- Costs more to accumulate and analyze information
- Source data isn't always readily available from normal accounting reports
- Reports from ABC don't always conform to generally accepted accounting principles and can't be used for external reporting
- Data produced by ABC may conflict with managerial performance standards previously established from traditional costing methods
- May not be as useful for companies where overhead is small in proportion to total operating costs

Conclusion. Activity-based costing is a comprehensive cost allocation method. It helps the management identify cost activities and cost drivers. ABC method serves several purposes including product costing, pricing, profitability, and customer profitability analysis.

On the other hand, absorption costing is the conventional costing approach. It adds fixed overhead costs to the variable costs of production.

The absorption costing method can be suitable for production facilities with little customization needs. It is ideal for production facilities where a large volume of products is manufactured for similar products. ABC method is costly, complex, and time-consuming. Thus, it is only suitable for large production facilities with a lot of customization needs. Absorption costing takes conventional costing approaches such as marginal costs one step further. However, it does not help the management in the decision-making.

ABC approach is a comprehensive method of cost allocation. The management can identify cost drivers and activities that are not direct to product manufacturing. Thus, it can help the management in product pricing, costing, and product profitability analysis.

The absorption cost method is a widely used and accepted method. It is in compliance with the accounting standards such as US GAAP rules.

The ABC method is also a widely used method. However, it is not required under accounting standards such as the US GAAP rules.

References:

1. Natasyah Aliyah Ramadina- Comparative Analysis Of Calculation Of Expedition Services Using Full Costing And Variable Costing Methods (Case Study at PT. Pulau Indah Maju Palembang)
2. Rienasti Satwikanitya- ANALYSIS OF COST OF PRODUCTION USING METHOD FULL COSTING AND VARIABLES COSTING IN THE SPACE COFFEE HOUSE YEAR 2022
3. Deri Kurniadi - Analysis of Determining Production Cost by Comparing Full Costing Method with Activity-Based Costing Method at UD. Ria Boga
4. Lawrence G. Buc, Peter M- Unifying Product Costing and Product Carbon Emissions Methods
5. Nguyen Thi Hoang Ly - Difficulties in the application of activity-based costing method in businesses in Vietnam
6. Valentina Monoarfa, Yuliana Lepa and Dinarova Salsavia Datau - Analisis Hasil Perhitungan Harga Pokok Produksi Metode Full Costing Vs Variabel Costing pada UMKM BMS Kota Gorontalo.
7. Priskila Manuho, Rudy Johanis Pusung and David Paul Elia Saerang - Analysis of Production Cost Calculations using the Direct Costing Method at PT Fortuna Inti Alam
8. Azadeh Chatrouz, Sareh Daneshgar and Azam Lari - Application Of Activity-Based Costing Method in The Estimate of Cataract Surgery Cost
9. Muhammad Kashif Shahzad, Muhammad Waqar, Shah Rukh Jamil-The Role and Impact of Costing Methods in Determining the Viability of Energy Systems
10. Astria Anggaria, Natalia Y. T. Gerungai and Meily Y. B. Kalalo - Penerapan metode full costing dan variable costing dalam perhitungan biaya produksi pada PT. Fortuna Inti Alam
11. Abduvaxidov F.T. Banklarda buxgalteriya hisobi (masalalar to'plami): O'quv qo'llanma (barcha bakalavr ta'lim yo'nalishi bo'yicha tahsil olayotgan talabalar uchun), - T.: "Tahririy Nashriyot", 2023. - 348 b.
12. Umarov Z.A. Banklarda buxgalteriya hisobi / darslik – T.: "IQTISOD-MOLIYA", 2021. – 580 b.

13. Abduvaxidov F.T. Banklarda buxgalteriya hisobi (2-qayta nashr): Darslik. – T.: "Innovatsion rivojlanish nashriyot-matbaa uyi", 2021. – 503 bet.
14. Ибрагимов А.К, Умаров З.А, К.Р.Хотамов, Н.К. Ризаев Тижорат банкларида молиявий ҳисоботнинг стандартлари. Дарслик. – Т.: Иқтисод-молия, 2020. – 560 бет.
15. Умаров З., Муругова И., Бабаева Г. Бухгалтерский учет в банках: Учебник. – Т.: “Иқтисод-Молия”, 2019. – 560 стр.
16. Наврузова К., Аллаберганов Р. Бухгалтерский учёт в банках: Учебник — Т.: “Иқтисод-Молия”, 2017. -312 с
17. Omonov A.A., Qoraliyev T.M. Banklarda buxgalteriya hisobi. Darslik. 1-nashri. TMI. – T.: Iqtisod-Moliya, 2014. – 295 bet.
18. Buckle M., Beccalli E. Principles of banking and finance. – London, 2011. 87 e.
19. Karimov N. va boshqalar. Banklarda buxgalteriya hisobi va operatsion texnikasi. O‘quv qo‘llanma. – T.: TDIU, 2011. – 403 b.
20. Ибрагимов А., Марипатов М., Ризаев Н. Халқаро молиявий ҳисобот стандартлари асосида банкларда бухгалтерия ҳисоби. Ўқув қўлланма. – Т.: Молия, 2010. – 272 б.