ENHANCING FINANCIAL REPORTING COMPLIANCE IN MANUFACTURING COMPANIES: A GOVERNANCE CONTEXT

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Abstract

This paper investigates the integration of activity-based costing (ABC) and process costing into the financial reports of the manufacturing sector in addressing the implementation of International Financial Reporting Standards (IFRS) in general and International Accounting Standard 2 (IAS 2). A solid literature review supports 27 semi-structured interviews of financial and cost managers from different sectors to highlight significant difficulties in using both costing techniques simultaneously. Further, ABC offers comprehensive information but opposes IAS 2 in inventory valuation. In contrast, process costing is more in line with compliance requirements for strictness (Elghaish & Abrishami, 2021). The research highlights that a strategic balancing act must be taken in compliance, continuous assessment, and training investment. The proposal for overcoming these challenges is piloting and partnering for effective financial reporting. This shows that the study ultimately provided invaluable insights into the application of dual-cost systems in financial reporting and proposed a framework for the effective integration of ABC and process costing, which helps in properly applying these methodologies within the manufacturing sector (Kaplan & Ramanna, 2021). It also stresses, therefore, that there is an allowance for production capacity in the allocation of costs to give room for appropriate judgments on issues of resource allocation and production management.

Keywords: Process Cost, Activity-Based Cost, ABS, International Accounting Standard 2, IAS 2, Manufacturing Companies, Manufacturing Capacity, Qualitative Methods

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1. INTRODUCTION

Financial information is helpful for decision-makers as it discloses the operational and economic performance of an organization (Abed et al., 2022; Roychowdhury et al., 2019). The activity-based costing (ABC) mechanism is still relevant today, and with technological development more and more advanced, further improvements are possible despite its age (Adamova, 2022). ABC facilitates better cost analysis in industrial companies and allows for better ways of spending resources effectively (Kaiser, 2019). It measures organizational activities to measure the direct and indirect costs of various activities. It provides a more concise methodology than the conventional ways. International Financial Reporting Standards (IFRS) presents one of the most significant challenges in

classifying costs as product or period costs per International Accounting Standard 2 (IAS 2) (Morshed, 2024a). ABC treats all expenses related to product production as product costs, conflicting with IAS 2 (Elghaish & Abrishami, 2021).

Prior research overlooks the combined use of ABC and process costing in financial reporting, leaving gaps in understanding their relationship, impact on reporting, and the influence of manufacturing capacity on ABC implementation. Additionally, a globally applicable ABC model aligned with IAS 2 is lacking. This research aims to explore this gap and develop a potential model for ABC compliance with IAS 2.

To achieve this aim, the following research questions are addressed:

RQ1: What are the challenges and implications associated with employing ABC and process costing simultaneously in financial reporting for manufacturing businesses?

RQ2: How do the utilization of two parallel cost systems, ABC and process costing, align or conflict with IAS 2 concerning cost classification for inventory valuation in manufacturing companies?

RQ3: What are the specific impacts of employing both ABC and process costing on inventory valuation accuracy under IAS 2 guidelines in manufacturing firms?

RQ4: What are the comparative advantages and disadvantages of integrating ABC and process costing for accurate financial reporting under IAS 2 in the manufacturing sector?

This research provides valuable insights for manufacturing firms aiming to enhance their cost management and financial reporting. The proposed integrated model efficiently combines process cost and ABC, ensuring precise cost calculation while adhering to accounting standards. Additionally, it emphasizes the significance of considering production capacity in cost allocation, enabling informed decisions on resource allocation and production management. Despite its benefits, implementing the model poses challenges, including the need for substantial investments in training and specialized software, potentially leading to operational constraints and production delays.

The structure of this paper is as follows. Section 2 reviews the relevant literature. Section 3 analyses the methodology used to conduct empirical research. Section 4 presents the findings. Section 5 provides the discussion and implications. Section 6 concludes the paper.

2. LITERATURE REVIEW

When developing a manufacturing cost accounting method, the accounting department is presented with various product costing methodologies. However, only a few fundamental cost accounting techniques form the basis for various other frameworks (Morshed, 2024b; Yagi & Kokubu, 2018).

Inventory valuation is crucial for businesses as it directly impacts their financial statements and profitability (Ong et al., 2022). It involves assigning a monetary value to the goods held in stock, which can significantly affect the reported profits and overall financial health of an organization. This process is not straightforward, as different industries and companies may follow varying methods to evaluate their inventory. In the business society, there is often debate and evaluation surrounding the methods used for inventory valuation (Singh & Verma, 2018).

In this case, IAS 2, which is in charge of directing the accounting of inventories, comes into play. It says that up until the time that revenue is recognized, inventories need to be classified as assets (Sah & Furedi-Fulop, 2022). Nevertheless, applying this standard into practice can occasionally present difficulties in determining how to allocate inventory expenses and selecting appropriate distribution strategies (Baloch & Rashid, 2022). It is crucial to point out that throughout the inventory valuation process, these nuances may cause disputes. Companies have to balance accurately representing the real economic worth of their inventory with adhering to accounting standards (Polachová, 2019).

Industries must exercise cautiousness when navigating the various valuation techniques at their disposal, given the importance of inventory valuation. Selecting an appropriate valuation technique can affect the way the company makes decisions in addition to the financial results that are reported. Therefore, when studying this topic, a full understanding of how various methods of valuation impact financial reporting and in general performance of the company is essential (van den Bogaert & van Jaarsveld, 2022).

ABC is an all-inclusive costing method that allocates indirect costs to goods according to the activities they engage in. When compared to traditional methods, this technique offers a more accurate representation of costs (Tran & Tran, 2022). When directing indirect costs like overhead expenditures and comprehending the unique cost drivers within a product, ABC is especially helpful (Elshaer, 2022).

However, process costing is a more straightforward method. It is more effective in industries where large quantities of similar or related products are produced, for instance, manufacturing or processing of food or chemicals (Kaplan & Ramanna, 2021). It is less complex compared to ABC, and it pools costs across departments or processes. The complexity and demands of the organization's operations will, therefore, drive which of the two approaches is more effective.

ABC, as a widely acceptable alternative approach to absorption costing in cost accounting and management, is increasingly becoming popular. The collection of detailed information and thorough analysis to ascertain the costs of producing products or services is what is known as ABC (D'Este et al., 2023; Masmoudi, 2021). This method ensures that the application of indirect costs is much more specific to the type of cost and the factors linked to every one of the costs, therefore increasing accuracy in the allocation of the indirect expenses (Gosselin & Journeault, 2022). ABC makes it easy to determine the actual expenses attached to the production process since it identifies the exact costs of each activity individually (Elmassri et al., 2022). One benefit of ABC is that it assists in arriving at an accurate and elaborate illustration of the cost of every product or service.

Organizations are now able to better understand pricing strategies and more precisely evaluate product feasibility (Raucci et al., 2020). Only if the organizations know the cost regarding the specific activities can they design the optimum pricing strategy, which would allow a market leader position and long-term sustainable revenue generation. Traditional process costing is more straightforward to teach and apply but does not necessarily reflect actual reality in terms of cost for any given product or service. Process costing is based on the assumption that the indirect costs of each unit remain constant throughout; however, this is quite often a substantial misrepresentation of fact in terms of the price that the production process bears. This may make businesses unable to arrive at sound decisions, which may lead to incorrect pricing strategies and a misconception of the true financial viability of various goods and services (Dosch & Wilson, 2010).

The relationship of financial reporting to cost accounting is particularly important in determining inventory for work-in-progress and finished goods, as well as the cost of goods sold (Gusev et al., 2023; Morshed & Ramadan, 2023).

ABC gives a more accurate view toward determining the price of any product or service and thus helps to decide the price (Jiménez et al., 2020). Process costing, however, helps in ascertaining cost in an obvious way to goods or services and thus can be helpful in taking care of the needs related to financial reporting (Bux & Amicarelli, 2022; Sahore & Verma, 2021).

The choice between ABC and process cost depends on several considerations that a company faces in its business operations and organization. For one, the complexity and diversity of products and services would necessitate an ABC system for better allocating costs among different activities (Ashtab & Anderson, 2023). Many companies that have standardized product lines prefer the process costing approach since it provides a more straightforward method of apportioning costs among products.

Companies with standardized product lines often favor process costing for its simple allocation method (Gonçalves et al., 2022). Secondly, the volume of production and the variability of production levels often favor ABC for businesses with fluctuating output (Rahmani et al., 2022). On the other hand, process costing matches firms maintaining a constant or high production volume for homogeneous commodities (Wang et al., 2022).

Besides these, the knowledge of the resource consumption pattern, the proportion of overhead costs, the complexity of production processes, and the specific need for management information all help in selecting between the two methods. It is through proper analysis of these aspects that a company can implement the most appropriate method of costing based on its distinctive operational needs and the management objectives to be accomplished. Accurate financial data remains crucial for the successful implementation of both ABC and process costing, considering that this determines how precisely cost is allocated at each particular point in time (Duran & Afonso, 2020). For this reason, the base for accurate cost allocation must be founded on timely and accurate financial data (Mizikovsky et al., 2020). While ABC measures the cost of resources consumed, it may cause variances in costs due to production volume, as opposed to IAS 2, which classifies costs as either product or periodic in financial statements (Allain & Laurin, 2018; Asogwa et al., 2022).

Although the literature provides insights about the use of ABC and process costing in the manufacturing sector, there is a clear research gap concerning the simultaneous use of two cost systems for financial reporting. Therefore, it is unclear whether businesses are currently using process costing in addition to ABC costing and how this kind of dual-cost system implementation will impact reporting. In addition, we hardly know the differences between process costing and ABC, how they influence reporting, and whether manufacturing capacity influences the decision to adopt and use ABC. To add further, we are not aware of any models that match ABC and IAS 2.

The present research extends these findings to explore how a company can simultaneously utilize two cost systems for financial reporting with a specific focus on the differences between ABC and process costing in their effects on financial reporting. It further examines whether manufacturing capacity can impact the application of ABC and whether there is a model for ensuring that ABC complies with IAS 2.

3. METHODOLOGY

3.1. Semi-structured interviews

First phase semi-structured interviews formed an integral part of this study, as they aimed to capture the diverse perspectives of the interviewees. The purpose was to obtain information aligned with the study's objectives and uncover broader practical implications.

The qualitative interviews were conducted as part of a group study, involving a smaller number of participants compared to the total number of individuals invited. The selection of participants was based on their qualifications within their respective organizations and their LinkedIn profiles. Most of them have more than ten years' experience. Initially, invitations were extended to 56 financial and cost managers. However, regrettably, a significant number of rejections, non-responses to emails, or excuses were received before the interviews. Consequently, only 27 cost and finance managers were ultimately interviewed. Despite a lower-than-anticipated number of participants, the interviews yielded sufficient information to address the research objectives and questions (Shiyyab & Morshed, 2024). All the selected interviewees demonstrated a keen interest in the study's goals because they related to their professional challenges, thereby contributing significantly to this investigation.

The researcher selected this sample from as many nations and industries as possible, depending on data and interviewee availability. This was done to generalize the findings and add value to various sectors.

Table 1. Interviewees' sample distribution

Country	*Industry*	*Number of interviewees per country*
Austria	Pesticide manufacturing	3
England	Pharmaceuticals	3
Hungary	Foodstuff manufacturing	4
Jordan	Oil refining	6
Qatar	Furniture	5
Pakistan	Automobile	2
UAE	Plastic production	4

The connections used for meetings were relatively open. As a result, only the most crucial questions were planned to open the conversation, leaving some of the questions that were asked unplanned (Jreissat et al., 2024).

The purpose of this section is to discuss the difficulties financial managers encounter when handling the financial data produced by ABC and to ascertain whether they use process costing as a parallel system to adhere to IAS 2 requirements.

Second, the research proposed a model based on manufacturing capacity and its relationship to ABC. This model demonstrated how businesses could follow IAS 2 and apply ABC without using other cost techniques.

Third, structured interviews were conducted with the same interviewer in the second method to discuss the ability to apply the suggested model.

3.2. Analysis of interview methods

Both sessions of interviews and dialogue-style meetings were held from March 2023 to August 2023, in both Arabic and English. The Arabic interviews were later translated into English. Some in-person interviews were conducted, but due to distance issues, Zoom was used for the interviews with some participants.

The interviewees' repeated information had to be avoided, and these selected sentences needed to sum up the entire discussion.

A comprehensive approach was taken by the research during the analysis phase, with the first interview method using content analysis and the second method using a thematic technique.

Following strict research guidelines, both interview methods' transcripts, analyses, and recordings were done by hand. Within the findings section, the study concentrated on choosing particular interviewee sentences that effectively conveyed the main themes and conclusions.

By using this methodological approach, the research was able to fully comprehend the data and investigate hidden meanings and interpretations in the transcripts of the interviews.

This research utilized a software application for qualitative data analysis, NVivo. The data were coded independently and in great detail by two human analysts in the study. The interview text was grouped based on similar content and ideas. Ethical rigor was maintained throughout the study. Informed consent was obtained from participants, and measures were taken to ensure privacy and confidentiality. Provision was also put in place to ensure that the participants were not negatively affected by the study in any way, and the study subjects could choose to withdraw at any given time. The research always ensured that, all through, the privacy and confidentiality of the participants were protected through the ethics set to guide research on human subjects.

4. FINDINGS

4.1. Interviews used as the first method to answer the research questions

4.1.1. First interview question, which aimed to obtain the differences between activity-based costing and process cost

The responses were as follows:

"*According to the activities that use resources, ABC is a method of allocating indirect costs to goods or services*" (Respondent 1, personal communication, March 15, 2023).

Another added: "*It accounts for the price of all the tasks required to produce a good or deliver a service. This includes both direct costs like labour and materials as well as indirect costs like rent, utilities, and office costs*" (Respondent 2, personal communication, March 22, 2023).

An opinion repeated many times: "*Due to its ability to pinpoint the precise activities that drive costs and assign those costs appropriately, ABC is thought to be more accurate than conventional costing techniques*" (Respondent 3, personal communication, April 17, 2023).

On the other hand, the responses added related to process costing.

"*It is a method of costing goods or services about steps or processes taken in manufacturing*" (Respondent 4, personal communication, May 2, 2023).

Another further stated: "*This system often works well in industries such as producing chemicals and foods that have mass output of homogeneous products. Under process costing, costs are recorded per department or process, and the unit cost is calculated by averaging the total number of units*" (Respondent 5, personal communication, May 22, 2023).

Process costing and ABC are two of the most essential methods that are involved in determining the cost and profitability of the goods or services both in the manufacturing and service sectors through discussions and content analysis. According to Tsai and Lai (2018), process costing is the technique or method under which the different steps or processes involved in manufacturing are measured and calculated. In contrast, ABC techniques focus on the activities required to produce a good or service. As already discussed, the usefulness of the two methods is paramount in an accurate distribution of costs and ascertaining product or service profitability. Hence, organizations need to understand the differences between these methods and choose the one that best suits their needs. These methods help businesses minimize their costs and, at the same time, help them correctly determine the prices of products, appropriate resource allocations, and long-term strategic planning. This has also been concluded by Zamrud and Abu (2020).

4.1.2. The second interview question asked about the impact of activity-based costing on financial reporting

The participants' answers were combined into three sentences as follows:

"*IAS 2's requirement that inventory be valued at the lower of cost or net realizable value presents one potential issue with the use of ABC with IAS 2 since it considers all incurred costs as production costs, opposing IAS 2. This means that inventory must be written down to reflect the lower value if the cost of production is higher than the item's anticipated selling price*" (Respondent 6, personal communication, June 2, 2023).

"*To comply with IAS 2's requirements for timely and accurate financial reporting, ABC requires more intricate calculations and time-consuming data collection. Moreover, ABC considers all expenses, product cost, and period cost in calculating the unit cost, so using a system like a process cost for financial reporting is required*" (Respondent 7, personal communication, June 7, 2023).

"*IAS 2 and other pertinent accounting standards must be followed by any method used for inventory valuation, even though ABC can offer helpful insights into the costs of producing inventory*" (Respondent 8, personal communication, June 12, 2023).

This analysis, in turn, points to significant issues related to the applicability of ABC to IAS 2 in terms of inventory valuation. IAS 2 requires that inventory should be measured at the lower of cost or net realizable value. In contrast, ABC measures all costs incurred as production costs without a distinction between product and period costs, as required by IAS 2. Consequently, when the cost of production is greater than the anticipated selling price, IAS 2 necessitates an impairment loss on the inventory to the realizable value that could lead to mismatching of valuation (Klopper & Brink, 2023).

More so, compliance with IAS 2 provisions on the most faithful financial statement is not easy when ABC is used. ABC entailed complicated computations and meticulous data collection that will encompass period and product costs in the valuation of the unit cost. Therefore, a system such as process costing is required for financial reporting purposes only, which also fits better into the boundary of costs as described by IAS 2 (Koster et al., 2023).

Even though ABC provides valuable information about the costs of production and can be utilized effectively in pricing decisions, compliance with IAS 2 and other accounting standards that require the inventory value to be reported at the cost of production is more important. This reveals that although ABC reflects the actual prices per unit, process costing is more appropriate for financial reporting since it fits the presentation of data based on IAS 2. This finding matches the conclusion by Schipper through a view that process costing is more consistent with cost separation toward financial reporting in line with IAS 2 (Schipper, 2022).

From the literature review, it was established that capacity influences the unit cost whenever ABC is used. Therefore, the following set of questions investigated whether using an activity-based costing system influences financial reporting. Summaries of the participants' responses are represented below:

"*Yes, when using activity-based costing, capacity can have an impact on financial reporting. This is because ABC allocates costs based on the processes used to produce a good or service, and the efficiency of those processes can affect how much money is spent on each process*" (Respondent 9, personal communication, July 22, 2023).

"*Financial reporting, in this regard, might be affected by higher overhead cost allocation to a product with limited capacity, and, as such, the machine has to work harder to do so. This might raise the cost of goods sold and lower the gross profit margin*" (Respondent 12, personal communication, August 15, 2023).

"*Changes in capacity, therefore, can have different effects on the allocation of costs by ABC. Overhead cost to products or services has to be reallocated considering changes in the level of activities if capacity or volume goes up. In ensuring that reports are more accurately reported, the use of activity-based costing should take care of the capacity of activities, and reviews and modifications to the allocation of overhead costs must be made as necessary*" (Respondent 10, personal communication, August 11, 2023).

"*In the application of ABC, capacity may have a significant influence on the degree of accuracy of cost allocation; in that, a constraint on production or service due to lack of capacity may increase the cost to perform a particular manufacturing or service process. This may slow the rate of performance of an activity in the production process, which would subsequently increase the cost and time-related factor of performing the activity in question. In such a scenario, the products or services coming out of that activity might reflect the brunt of this increased cost, with a lower cost per unit and a decline in profit margins*" (Respondent 11, personal communication, August 16, 2023).

The above sentences illustrate the tremendous significance of considering the capability of each activity when allocating costs using ABC. Capability must be sufficient to fill production demand. This can be done through the analysis of past data for bottlenecks and other capacity wastes, including predicting future demand, as evident in Yao et al. (2022). Besides that, they further confirmed (Ramadan et al., 2024) that the overestimated unit cost developed by ABC does not achieve IAS 2 compliance.

The findings from the interview questions show the benefit of introducing a model that uses ABC and provides compliant information in accordance with IAS 2, based on manufacturing capacity.

4.2. The second research method: The suggested model

The second research method shows the model suggested by the researcher to resolve the problem of using ABC and process cost in parallel, reducing time and effort consumption, and providing a more accurate cost unit while adhering to accounting standards.

To determine the cost, the model combines the ABC and process costing approaches. The direct costs are identified and included as the model's first

step. The manufacturing overhead costs are then included after these costs have been determined. These expenses are indirect expenses incurred to maintain the efficiency of the production process. The model uses the capacity as a base to distribute the manufacturing overhead costs for financial reporting purposes. The used capacity is then assigned the manufacturing overhead cost. The sum of the overhead and non-manufacturing costs is divided by the number of units produced to calculate the unit cost using ABC.

The figures used in this model are purely illustrative and may not accurately reflect a company's costs, which is important to note. Companies may need to alter the model based on their particular circumstances and operational needs.

Table 2. Combined model

Cost type		*Used capacity*	*Unused capacity*	*Total cost*
Variable cost	Raw material	$5,000		$5,000
	Direct labour	$6,000		$6,000
	Total	$11,000		$11,000
Manufacturing overhead	Permanent labour	$8,000	$3,000	$11,000
	Machine run time	$3,000	$2,000	$5,000
	Other MOH	$10,000	$4,000	$14,000
	Total	$21,000	$9,000	$30,000
Non-manufacturing cost	Procurement	$4,000	$3,000	$7,000
	Customer care	$2,000	$1,000	$3,000
	Inventory administration	$2,000	$1,000	$3,000
	Other activities	$5,000	$2,000	$7,000
	Total	$13,000	$7,000	$20,000
Total incurred cost				$61,000

The model shows the allocation of cost total incurred of production of 200 units. According to ABC, the cost per unit is $305. This cost will help the management set suitable prices.

To adhere to IAS 2, the following cost should only be calculated in unit cost, and the cost per unit should be calculated as $160 ($32,000/200 units).

Table 3. Combined model (used capacity)

Cost type	*Value, $*
Variable cost	$11,000
Manufacturing overhead (used capacity)	$21,000
Total	$32,000

The excluded cost totaled $29,000 should be treated as operating expenses in the statement of profit or loss.

Table 4. Combined model (unused capacity)

Cost type	*Value, $*
Manufacturing overhead (unused capacity)	$9,000
Non-manufacturing cost	$20,000
Total	$29,000

4.3. The third method: Structured interviews

The third method involves generating themes by recording various expressions from the interviews and incorporating specific quotations. These summaries of the entire text serve to eliminate redundancies in the speech of the interviewees.

The contributions of the interviewees were coded into the following two themes.

Advantages of using this model:

- the use of this model would give a more accurate cost of inventory, particularly for businesses with a variety of product lines;
- businesses can make better pricing, production, and inventory management decisions with accurate inventory cost information;
- giving accurate and dependable data on inventory costs, this model would ensure compliance with IAS 2.

Costs of implementing this model:

- training employees on this model would be necessary, and this would take time and money;
- investing in software that can handle this model would be expensive for businesses;
- the additional time needed to implement this model could cause the production process to be delayed.

According to this method, it is possible to adhere to IAS 2 and provide accurate and reliable information about inventory costs by combining process cost and activity-based cost into one model. To make sure that the advantages outweigh the expenses, implementation costs must be carefully taken into account.

5. DISCUSSION AND IMPLICATIONS

This research aimed to upgrade the compliance of financial reporting in manufacturing companies by integrating ABC and process costing under IFRS and, more specifically, IAS 2. According to the results from the data analysis, integrating ABC and process costing presents compliance challenges, particularly in cost classification. This confirms the claim of Elghaish and Abrishami (2021) that there are disputes between the entire production-related expenditure being handled as the cost of the product and what ABC requires.

ABC offers detailed cost insights but conflicts with IAS 2's requirements by not distinguishing between product costs and period costs. Literature confirms that, indeed, the most detailed models in ABC lack compatibility with the more straightforward approach to cost classification under IAS 2 (Morshed et al., 2024). Using only ABC can lead to inflated unit costs and noncompliance with IAS 2 since it can overstate inventory values (Kaplan & Ramanna, 2021).

Though ABC facilitates very accurate cost apportionment, which supports decision-making for pricing and resource allocation, its complexity and resource intensity are significant drawbacks (Dosch & Wilson 2010; Gosselin & Journeault, 2022). Process costing is simpler and more aligned with IAS 2 but lacks detailed cost tracking, potentially leading to less precise cost allocations and mispricing (Rahmani et al., 2022).

The crucial problems in integrating ABC with process costing would have to be addressed by addressing the following issues:

Challenges and implications. The deeper integration between ABC and process costing leads to the latter, which stipulates that it is difficult to comply with IAS 2 since the approaches of classifying cost conflict.

Alignment and conflict with IAS 2. The comprehensive cost treatment under ABC requires the use of process costing for it to be in alignment and devoid of conflict with IAS 2.

Effect on the accuracy of valuation of inventories. ABC cannot fail to overvalue the unit costs because higher overhead costs would have been allocated. The process employed by process costing is more straightforward and more compliant, and hence, financial reporting is reliable and in line with the IAS 2 guidelines.

Benefits and limitations. ABC and process costing, when combined, give an accurate cost allocation and improved decision-making. However, on the flip side, it is a costly method to implement, requires training and may delay operations.

Implementation. Manufacturing companies wishing to implement ABC and process costing should:

- establish a dual-cost system combining detailed ABC tracking and compliance-oriented process costing;
- conduct feasibility studies and impact assessments through pilot tests;
- invest in training for financial managers and cost accountants;
- create cross-functional teams for continuous evaluation and updates of cost allocation methods;
- implement advanced costing software to automate the process and improve cost allocation accuracy;
- ensure cost allocation accounts for production capacity and regularly review and adjust based on capacity utilization.

6. CONCLUSION

ABC with process costing in the accounting of manufacturing companies opens up both great opportunities and challenges. On the one hand, ABC provides insight into cost assignment and resource provision; on the other, it continuously conflicts with the IAS 2 requirements for the valuation of inventories. On the other hand, though process costing relates better to compliance requirements, it does not have the precision of ABC in tracking and assignment costs. To solve this, the research proposed a dual-cost system that will make use of the benefits of both techniques to achieve accurate financial reporting and compliance with IAS 2.

This system focuses more on the ongoing review and strategic integration with much investment in training and software.

This article recommends incorporating ABC for detailed cost tracking and process costing for compliance-oriented reporting. Pilot testing of the feasibility and impact of an integrated model on financial reporting and operational efficiency is recommended for manufacturing companies. Proper training programs should also be invested in all financial managers and cost accountants so that the dual-cost system can be implemented and used effectively. This might include using advanced software solutions to ensure streamlined cost-allocation processes and enhanced accuracy. This will involve setting up cross-functional teams so that the improvements and updates in the cost allocation method are constantly made and will be aligned with the operational needs and compliance requirements. Therefore, companies should consider the scope of production while allocating costs in such a way that the costing techniques should represent real economic value and technical efficiency.

Adopting a dual-cost system attracts numerous costs in terms of training, software acquisition, and possible operational challenges that might be encountered during the transitioning period. The challenges that emanate from amalgamating two different costing techniques hinder the proper reporting of financial records in terms of accuracy and consistency. In addition, ABC encompasses more details and accurate information that is tedious and costly to obtain. More time spent running and controlling the dual-cost system will, therefore, translate into more time before undertaking the production process and other activities.

This article is fundamental research as far as future research is concerned since it fills the void of the existence of ABC and process costing simultaneously in financial reporting. It hence points to the need for a universally applicable model that feels like IAS 2 and can be applicable in future studies on cost management and compliance strategies within the manufacturing industry. Future research may build from this study to explore the long-term impacts that the use of the dual-cost system has had on financial performance, operational efficiency, and compliance. Further research on the application of such an integrated model in other industries and under different geographical settings would yield much information regarding its adaptability and effectiveness.

Although this study shed light on how cost accounting techniques are used in manufacturing firms, there are several limitations that should be noted. The findings of the study could not have been specifically relevant to different sectors because its primary focus was on manufacturing companies. Moreover, the suggested integration model functions as a theoretical structure and might necessitate additional verification and improvement in actual business environments.

REFERENCES

Abed, I. A., Hussin, N., Ali, M. A., Haddad, H., Shehadeh, M., & Hasan, E. F. (2022). Creative accounting determinants and financial reporting quality: Systematic literature review. *Risks, 10*(4), Article 76. https://doi.org/10.3390/risks10040076

Adamova, G. A. (2022). Activity-based cost accounting as a tool for strategic company management. *E-Management, 5*(2), 45–52. https://doi.org/10.26425/2658-3445-2022-5-2-45-52

Allain, E., & Laurin, C. (2018). Explaining implementation difficulties associated with activity-based costing through system uses. *Journal of Applied Accounting Research, 19*(1), 181–198. https://doi.org/10.1108/JAAR-11-2014-0120

Ashtab, S., & Anderson, W. (2023). Differences in manufacturing and healthcare supply chain management: An overview. *International Journal of Healthcare Technology and Management, 20*(3), 232–248. https://doi.org/10.1504/IJHTM.2023.132446

Asogwa, I. E., Varua, M. E., & Tenakwah, E. S. (2022). Examining the relationship between sustainability reporting processes and organizational learning and change. *Corporate Ownership & Control, 20*(1), 145–161. https://doi.org/10.22495/cocv20i1art14

Baloch, N., & Rashid, A. (2022). Supply chain networks, complexity, and optimization in developing economies: A systematic literature review and meta-analysis. *South Asian Journal of Operations and Logistics, 1*(1), 1–13. https://doi.org/10.57044/SAJOL.2022.1.1.2202

Bux, C., & Amicarelli, V. (2022). Material flow cost accounting (MFCA) to enhance environmental entrepreneurship in the meat sector: Challenges and opportunities. *Journal of Environmental Management, 313*, Article 115001. https://doi.org/10.1016/j.jenvman.2022.115001

D'Este, C., Galavotti, I., & Carabelli, M. (2023). Goodwill reporting in corporate acquisitions: The effects of managerial discretion under the new accounting rules. *Corporate Ownership & Control, 20*(4), 72–83. https://doi.org/10.22495/cocv20i4art5

Dosch, J., & Wilson, J. (2010). Process costing and management accounting in today's business environment. *Strategic Finance, 92*(2), 37–44. https://www.proquest.com/docview/744431051?sourcetype=Scholarly%20Journals

Duran, O., & Afonso, P. S. L. P. (2020). An activity based costing decision model for life cycle economic assessment in spare parts logistic management. *International Journal of Production Economics, 222*, Article 107499. https://doi.org/10.1016/j.ijpe.2019.09.020

Elghaish, F., & Abrishami, S. (2021). A centralised cost management system: Exploiting EVM and ABC within IPD. *Engineering, Construction and Architectural Management, 28*(2), 549–569. https://doi.org/10.1108/ECAM-11-2019-0623

Elmassri, M., Yusuf, A., Allah, A. K., Al Shamsi, M., Kaniyamparambil, R., & Al Ahbabi, S. M. (2022). The quality of corporate reporting: The United Nations sustainable development goals. *Corporate Ownership & Control, 19*(3), 158–167. https://doi.org/10.22495/cocv19i3art12

Elshaer, A. M. (2022). Analysis of restaurants' operations using time-driven activity-based costing (TDABC): Case study. *Journal of Quality Assurance in Hospitality & Tourism, 23*(1), 32–55. https://doi.org/10.1080/1528008X.2020.1848745

Gonçalves, B. d. S. M., Carvalho, F. L. d., & Fiorini, P. d. C. (2022). Circular economy and financial aspects: A systematic review of the literature. *Sustainability, 14*(5), Article 3023. https://doi.org/10.3390/su14053023

Gosselin, M., & Journeault, M. (2022). The implementation of activity-based costing by a local government: An actor-network theory and trial of strength perspective. *Qualitative Research in Accounting & Management, 19*(1), 18–44. https://doi.org/10.1108/QRAM-05-2020-0073

Gusev, V., Ryabova, T., Chernegov, N., & Pavlov, R. (2023). Peculiarities of product cost calculation and cost management at Russian bakery enterprises. In A. Beskopylny, M. Shamtsyan, & V. Artiukh (Eds.), *XV International Scientific Conference "INTERAGROMASH 2022"* (Lecture notes in networks and systems: Vol. 575, pp. 1424–1438). Springer. https://doi.org/10.1007/978-3-031-21219-2_159

Jiménez, V., Afonso, P., & Fernandes, G. (2020). Using agile project management in the design and implementation of activity-based costing systems. *Sustainability, 12*(24), Article 10352. https://doi.org/10.3390/su122410352

Jreissat, E. R., Khrais, L. T., Salhab, H., Morshed, A., & Dahbour, S. (2024). An in-depth analysis of consumer preferences, behavior shifts, and barriers impacting IoT adoption: Insights from Jordan's telecom industry. *Applied Mathematics and Information Sciences, 18*(2), 271–281. https://www.naturalspublishing.com/files/published/bl29j7p268847z.pdf

Kaiser, M. J. (2019). The role of factor and activity-based models in offshore operating cost estimation. *Journal of Petroleum Science and Engineering, 174*, 1062–1092. https://doi.org/10.1016/j.petrol.2018.10.093

Kaplan, R. S., & Ramanna, K. (2021). Accounting for climate change. *Harvard Business Review, 99*(6), 120–131. https://www.hbs.edu/faculty/Pages/item.aspx?num=61445

Klopper, N., & Brink, S. M. (2023). Determining the appropriate accounting treatment of cryptocurrencies based on accounting theory. *Journal of Risk and Financial Management, 16*(9), Article 379. https://doi.org/10.3390/jrfm16090379

Koster, F., Kok, M. R., van der Kooij, J., Waverijn, G., Weel-Koenders, A. E. A. M., & Barreto, D. L. (2023). Dealing with time estimates in hospital cost accounting: Integrating fuzzy logic into time-driven activity-based costing. *PharmacoEconomics-Open, 7*, 593–603. https://doi.org/10.1007/s41669-023-00413-2

Masmoudi, S. M. (2021). The effect of audit committee characteristics on financial reporting quality: The moderating role of audit quality in the Netherlands. *Corporate Ownership & Control, 18*(3), 19–30. https://doi.org/10.22495/cocv18i3art2

Mizikovsky, I. E., Kozlova, E. P., Garina, E. P., Garin, A. P., & Kuznetsova, S. N. (2020). Improvement of cost allocation processes for maintenance and operation of industrial enterprise equipment. In E. Popkova (Ed.), *Growth poles of the global economy: Emergence, changes and future perspectives* (pp. 775–784). Springer. https://doi.org/10.1007/978-3-030-15160-7_78

Morshed, A. (2024a). Assessing the economic impact of IFRS adoption on financial transparency and growth in the Arab Gulf Countries. *Economies, 12*(8), Article 209. https://doi.org/10.3390/economies12080209

Morshed, A. (2024b). Comparative analysis of accounting standards in the Islamic banking industry: A focus on financial leasing. *Journal of Islamic Accounting and Business Research.* https://doi.org/10.1108/JIABR-12-2022-0349

Morshed, A., & Ramadan, A. (2023). Qualitative analysis of IAS 2 capability for handling the financial information generated by cost techniques. *International Journal of Financial Studies, 11*(2), Article 67. https://doi.org/10.3390/ijfs11020067

Morshed, A., Maali, B., Ramadan, A., Ashal, N., Zoubi, M., & Allahham, M. (2024). The impact of supply chain finance on financial sustainability in Jordanian SMEs. *Uncertain Supply Chain Management, 12*(4), 2767–2776. https://doi.org/10.5267/j.uscm.2024.4.025

Ong, S. Y., Moroney, R., & Xiao, X. (2022). How do key audit matter characteristics combine to impact financial statement understandability? *Accounting & Finance, 62*(1), 805–835. https://doi.org/10.1111/acfi.12811

Polachová, K. (2019). Compliance with IAS 2 in consolidated financial statements of PSE listed companies. *European Financial and Accounting Journal, 14*(3), 61–78. https://doi.org/10.18267/j.efaj.230

Rahmani, M., Romsdal, A., Sgarbossa, F., Strandhagen, J. O., & Holm, M. (2022). Towards smart production planning and control; a conceptual framework linking planning environment characteristics with the need for smart production planning and control. *Annual Reviews in Control, 53*, 370–381. https://doi.org/10.1016/j.arcontrol.2022.03.008

Ramadan, A., Alkhodary, D., Alnawaiseh, M., Jebreen, K., Morshed, A., & Ahmad, A. B. (2024). Managerial competence and inventory management in SME financial performance: A Hungarian perspective. *Journal of Statistics Applications & Probability, 13*(3), Article 1. https://digitalcommons.aaru.edu.jo/cgi/viewcontent.cgi?article=1771&context=jsap

Raucci, D., Lepore, D., & Sabatiello, R. (2020). Activity-based pricing in small and medium-sized restaurants. Evidence from the Italian context. *International Journal of Culture, Tourism and Hospitality Research, 14*(4), 565–577. https://doi.org/10.1108/IJCTHR-02-2020-0046

Roychowdhury, S., Shroff, N., & Verdi, R. S. (2019). The effects of financial reporting and disclosure on corporate investment: A review. *Journal of Accounting and Economics, 68*(2–3), Article 101246. https://doi.org/10.1016/j.jacceco.2019.101246

Sah, G. G., & Furedi-Fulop, J. (2022). The effects of proper inventory management on the profitability of SMEs. *Technium Social Sciences Journal, 32*(1), 340–351. https://doi.org/10.47577/tssj.v32i1.6634

Sahore, N. S., & Verma, A. (2021). Corporate disclosures and firm characteristics: A study of the emerging market listed companies. *Corporate Ownership & Control, 19*(1), 42–54. https://doi.org/10.22495/cocv19i1art4

Schipper, K. (2022). Why do accounting issues end up in the 'too difficult' box? *Accounting and Business Research, 52*(5), 482–506. https://doi.org/10.1080/00014788.2022.2079686

Shiyyab, F. S., & Morshed, A. Q. (2024). The impact of credit risk mitigation on the profits of investment deposits in Islamic banks. In N. Mansour & L. Bujosa (Eds.), *Islamic finance: New trends in law and regulation* (pp. 117–129). Springer Cham. https://doi.org/10.1007/978-3-031-48770-5_11

Singh, D., & Verma, A. (2018). Inventory management in supply chain. *Materials Today: Proceedings, 5*(2), 3867–3872. https://doi.org/10.1016/j.matpr.2017.11.641

Tirol-Carmody, K., Kardash, N., Chang, K., & Ecker-Lyster, M. (2020). Adopting an activity-based cost management model at a community college: A case study. *Community College Journal of Research and Practice, 44*(7), 482–491. https://doi.org/10.1080/10668926.2019.1616005

Tran, U. T., & Tran, H. T. (2022). Factors of application of activity-based costing method: Evidence from a transitional country. *Asia Pacific Management Review, 27*(4), 303–311. https://doi.org/10.1016/j.apmrv.2022.01.002

Tsai, W.-H., & Lai, S.-Y. (2018). Green production planning and control model with ABC under industry 4.0 for the paper industry. *Sustainability, 10*(8), Article 2932. https://doi.org/10.3390/su10082932

van den Bogaert, J., & van Jaarsveld, W. (2022). Vendor-managed inventory in practice: Understanding and mitigating the impact of supplier heterogeneity. *International Journal of Production Research, 60*(20), 6087–6103. https://doi.org/10.1080/00207543.2021.1983222

Wang, X., Liu, A., & Kara, S. (2022). Machine learning for engineering design toward smart customization: A systematic review. *Journal of Manufacturing Systems, 65*, 391–405. https://doi.org/10.1016/j.jmsy.2022.10.001

Yagi, M., & Kokubu, K. (2018). Corporate material flow management in Thailand: The way to material flow cost accounting. *Journal of Cleaner Production, 198*, 763–775. https://doi.org/10.1016/j.jclepro.2018.07.007

Yao, X., Almatooq, N., Askin, R. G., & Gruber, G. (2022). Capacity planning and production scheduling integration: Improving operational efficiency via detailed modelling. *International Journal of Production Research, 60*(24), 7239–7261. https://doi.org/10.1080/00207543.2022.2028031

Zamrud, N. F., & Abu, M. Y. (2020). Comparative study: Activity based costing and time driven activity based costing in electronic industry. *Journal of Modern Manufacturing Systems and Technology, 4*(1), 68–81. https://doi.org/10.15282/jmmst.v4i1.3840