



Impact of Activity Based Costing System on Financial Performance of SMEs: A Case of Lester Trading Private Limited

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Abstract

Purpose: The purpose of the study was to assess the impact of activity based costing system on financial performance of SMEs. It was observed that high escalating operating costs is a serious cause of concern in most SMEs in Zimbabwe. In order to establish the impact of activity based costing system on financial performance of SMEs, the study would like at the benefits of using activity based costing system, the effects of activity based costing system on cost control, the problems faced with use of activity based costing system and the cost drivers of activity based costing system.

Methodology: A descriptive design research methodology was adopted to gather data through use of questionnaires from a population of 15 employees. Data analysis was undertaken by use of SPSS to determine correlations and tables, pie charts and graphs facilitated data presentation.

Findings: From the findings, activity based costing system had negative effects on the cost control reduction concluding that there was an insignificant relationship.

Originality value: training of employees is important to equip them with the necessary knowledge and skills and applying an effective ABC system.

1. Background of the study

Business rivalry in the twenty-first century is rising, so companies are getting more aggressive in creating tactics that will guarantee their continued profitability, such as the usage of activity-based costing. According to Elhaman (2012), the inefficiencies that resulted with the usage of the conventional costing method, which uses direct labour to assign indirect, has resulted in introduction of the activity based costing technique .Ezeala (2022) asserts that activity based costing system distributes overhead costs to cost the objects by assigning resources used by an activity and then allocating activities to the cost objects that gave rise to the activities to be done. Product costing has become the most critical variables in the financial performance and profitability of the firm (Mwila, Masaka and Tukumana, 2022). This has been increased by the competitive climate, which is a consequence of globalization. According to (Al-Dhubaibi 2021) changes in the competitive environment and structural changes to organizations facilitates organizations to demand reliable information on a product or service costs so that they may establish prices that are competitive and result to positive performance.

Small and medium firms have a significant role in economic growth as they contribute to job generation as well as to the gross domestic product (GDP) and they greatly enhance to introduction of new technologies (Kocakulah et al., 2017). Additionally, according to Munanga (2013), excessive operating costs make it challenging for Small and Medium-Sized Enterprises to turn a profit because they may hinder their working capital and profitability. High operational expenses might certainly make it impossible for SMEs to offer their items at competitive pricing, thus the issue of poor sales. Lyne (2014) defines operational cost as cost of operating a firm, although they vary on the kind of business and may be characterized as (fixed cost) for example rent whereas operational/production cost might alter i.e. can go up or decrease from month to month.

River bells Trading Private Limited is a family owned Brick Manufacturing Company, which was legally formed in 2017. So is experiencing severe competition from other small and medium firms and also other major brick manufacturing organizations such as a McDonald brick it is suffering says Dube (Managing director). The firm is engaged the supply of construction supplies such as bricks, river sand, pits sand and cement. The financial performance has been falling largely owing to the increased operational expenses and diminishing income.

Table 1: Lester Trading Private Limited .Extracts from the Statement of Comprehensive Income for the Years Ended 31 December 2019 to 2021

Component	2018	2019	2020	2021
Revenue	103,698	83, 220	185, 660	193, 300
Total Operating/(production cost)	93,300	105, 560	192, 563	143, 990
Net profit /(Loss)	10, 398	(22,340)	(6,903)	49 310

Source: Riverbells trading private limited income statements (2018-2021)

The excerpt in Table 1 illustrates the trajectory of revenue, operating expenditures and profit for the firm during 2018 to 2021 and the fall in revenue and dramatic growth in operating expenses before and after adoption of ABC system. This has been a key issue of worry for the directors of Lester Trading (Pvt) as in 2018-2019 sales declined by USD \$20,478 while total operating /production expenses were growing from 2018-2019 and a little reduction in 2021 was seen. The Managing Director of the organization decided that in 2019 there were extremely significant losses of USD\$ 22, 340 in which they were more worried about this. Therefore, this circumstance has led to fewer earnings being realized and while persistent losses were reoccurring from year to year.

1.1 Main research objective

To assess the impact of Activity based costing on the financial performance of small and medium enterprises.

1.2 Overview of Activity Based Costing System

In the field of management accounting, Cooper and Kaplan created the activity-based costing system as a method of cost allocation. According to Hardan and Shatnawi (2013), Activity-Based Costing (ABC) was created at the end of the 1980s as a costing methodology that overcame the limitations of previous systems by providing more precise cost information for commodities, consumers, services, and processes. These scholars went on to clarify that this method provides more accurate cost data since it more accurately reflects the economics of the manufacturing process than the traditional unit-based costing methodology, according to Cooper and Kaplan (1988), who were referenced by Shibab and Sivaram (2017).

According to Palaiogk and Tjalsma (2012), the strategy was successfully used in industrial and service divisions to improve tactical and strategic decision making as well as to activate cost management and customer profitability. Additionally, Activity Based Costing was initially developed for production processes, and its proponents base their argument on the notion that the complexity of production differs between different goods, and that the consumption of data regarding the quantity of activities consumed by cost items is based on this notion (Boris, 2013). These academics further explained that this technique reflects the economics of the manufacturing process more precisely than conventional unit-based costing system consequently delivering data that is free from error (Salem and Mazhar, 2014).

The Activity Based Costing method finds the relationships between cost factors and activities (Pokorna, 2016). Products, services, cost centers, and departments can all be considered as cost objects.

1.2.1 Benefits and Limitations of activity based costing

Salem and Mazhar (2014) assert activity based costing system does not solely operate as foundation for computing more accurate product cost but acts as a method for controlling expenses Sarah (2015) explained the advantages of adopting Activity based pricing approach. Firstly, it permitted the identification of the items and services that are lucrative and less profitable. Secondly, estimates expenses precisely, which allows better control over indirect expenditures. Moreover, it gives information to enable feasible strategic decision-making. Further says that it can be used to all sorts of organizations and it enables expenditures to be associated the drivers. Lastly, assesses the achievements of both employees and divisions.

However, irrespective of the benefits gained by activity-based pricing method there are also downsides related with it as revealed by various scholars. Sara (2015) revealed that Activity Based Costing system had numerous drawbacks as described below; the cost of addressing the data high than in other systems. Secondly, the barrier in determining cost drivers is prevalent. Moreover, enhances different processes and demands main cost distribution. To add cost that is more exact is not achieved, as there are unanticipated charges. Lastly, it largely concentrates upon expenses minimization, setting aside the intended goal of the firm.

1.2.3 Fundamentals of Activity-Based Costing

Al-Khadash and Nassar (2010) revealed that the Activity Based Costing systems focus in appropriate cost apportionment of expenditure to goods relying on the cost assignment perspective. Moreover, (Turney,1992) quoted in Oseifuah (2014) study revealed that there were 2 viewpoints of Activity Based Costing which are respectively cost assign view and process view.

1.2.3.1 Cost assignment view

According to this viewpoint, an organization's important actions are charged with expenses. These activities are then assigned to cost items, such as products or services that make use of the activities. Resources are used by activities; hence, they

are linked to them via resource drivers that simulate the consumption of resources by activities. Each resource that is linked to an activity turns into a component of the cost of that activity. We can better understand why resources are used by using the information provided to identify the activities that use the most of them and potential areas for cost reduction.

The following stage involves allocating resources to activities, tracking actions against cost objects, A cost object is frequently a product, a product line, or a client; as a result, it is the reason why work is done. Activity drivers evaluate how much of an activity is consumed by the cost objects. The sum of all activity expenses incurred by the cost object represents the cost object's overall cost.

1.2.3.2 Process View

Cost drivers, actions, and performance make up the building blocks of the process view. Cost drivers determine what and how much work is required to complete a task or series of tasks. For instance, a client order starts the series of steps involved in processing an order. How much is required depends on how much the client orders. Internal components pertaining to individual activity as well as those linked to earlier activities are both considered cost drivers. Each action in a series is a client of the one before it. To provide value to the external client, activity collaborates with a chain of internal customers. Cost drivers are essential because they show possibilities for improvement. A faulty component obtained from supplier in this situation will need rectification activity to rectify the issue hence investing extra work and money. A quality certification scheme might assist minimize a supplier failure rate and hence reduce overall cost of both customer and supplier.

Performance evaluation it evaluates how effectively a task is completed. Activity efficiency or the time required completing an activity, and work quality are common performance indicators. , the larger the resources used and total cost are, the longer it takes to complete a work. Low quality also typically results in the use of additional

resources and greater overall costs. The goal is to use this data to help improve performance and increase the worth of goods and services.

1.3 Designing of Activity Based costing system

According to Kocakulah (2017), activity-based costing includes the following techniques: identification of the activities involved in producing each product and the cost drivers used to measure them. Next, list the costs associated with each action. Also determine, through interviews, observation, or records, how much time employees spend on each of these duties for each product. Determine the activity cost driver rates last. Divide these activity costs by the output of each activity to assign these costs to products or customers. Drury's (2012) study looked into the four steps that go into developing an activity-based costing system, including the identification of crucial business operations.

This may be the aggregation of units of labor or activities for example buying of supplies might be classified as a distinct activity. It may consist of summing up several activities such as receiving a buy request, locating suppliers, producing a purchase order and doing follow-ups.

1.3.1 Assigning expenses to cost centers for each activity

This implies that each activity must have a cost associated with the resources it used for a specific time after the activity has been established. This makes it easier for businesses to gauge how much they are spending on certain activities. Many activities will be directly attributed to individual Centre while some maybe indirectly and jointly shared by numerous activities e.g., manpower, lightning and heating expenses. They are allocated to tasks on the basis source and result or meeting with workers that can offer suitable estimates of used resources.

1.3.2 Determination of cost drivers for each activity

A cost driver must be provided for each activity center and costs connected to each activity cost center must be assigned during this stage. Application of activity cost driver occurs here.

1.3.3 Factors to consider while picking appropriate driver

1.3.3.1 Offering sufficient explanation of cost activity cost pool.

1.3.3.2 Cost driver should be readily measured.

Data should be reasonably straightforward to access and be identified with items. Transaction drivers include the quantity of completed client orders, completed purchase orders, completed inspections, and the quantity of times an activity was carried out. The duration cost drivers are the hours spent setting up before beginning an activity.

Assigning activity costs to products in accordance with product demand

The process of adding cost driver rates to items is now complete. There must be a method for calculating the setup hours utilized by each product if setup hours are used as cost drivers. Since all products that need setup are charged a fixed setup fee, measuring products is not necessary if setup hours are employed.

2. Research Methodology

The study adopted a quantitative research methodology. A questionnaire was used to collect data. The researchers employed regression analysis to demonstrate the relationship between ABC System on financial performance of Lester Trading Private Limited Company. Return on Asset was employed as a measure of financial performance (Dependent variable). The independent variables were cost control, activity-based system, and training. The data analysis and presentation were done using SPSS software the findings are detailed. The population and sample are represented below:

Table 2. Population summary

Departments	Population (Census)	Questionnaires
Top level management	3	2
Accounting and Finance	3	2
Human resources	1	-
Sales and Marketing	2	2
Production manager	1	1
Other employees	5	3
Total	15	10

3. Results

Table 3: Pearson Correlations

		Correlations				
		ABC SYSTEM	COST CONTROL	TRAINING	MANAGEMENT	ROA
ABC SYSTEM	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	10				
COST CONTROL	Pearson Correlation	-,067	1			
	Sig. (2-tailed)	,854				
	N	10	10			
TRAINING	Pearson Correlation	,102	,918**	1		
	Sig. (2-tailed)	,779	,000			
	N	10	10	10		
MANAGEMENT	Pearson Correlation	,023	,904**	,979**	1	
	Sig. (2-tailed)	,950	,000	,000		
	N	10	10	10	10	
ROA	Pearson Correlation	-,753	,634	,781	,561	1
	Sig. (2-tailed)	,674	,345	,432	,467	
	N	10	10	10	10	10

** Correlation is significant at the 0.01 level (2-tailed).

Source: primary data from SPSS

Using the results from the Pearson regression model above on table 3, it is indicating that there is a negative relationship between training s and activity-based costing system of -0.067. This means that when ABC system increases the variable cost control decreases and looking at p value it is insignificant since it is above $p < 0.05$. The researchers also observed that the other remaining variables are positively related that is when variables increase the other one also increases.

Cost and training positively related with coefficient of 0.918 while management and training also are positively correlated with coefficient of 0.904 and lastly costs and management coefficient of 0.979. This means that when one variable increases the other variable also increases and all these variables are significant at level 0.01. Lastly return on asset and activity based costing are strongly positively related with coefficient of 1. The results indicates that activity based costing and cost control are negatively co-related that is there insignificant relationship. Moreover, financial performance and activity-based costing are negatively related implying an insignificant relationship. Results obtained are in line with Mohamed (2019), Wanyonyi, Ronald and Mwit (2017) and Porkona (2016) and however findings by Mwila, Masaka and Tukumana (2022) observed a positive relationship between activity-based costing on cost reduction and economic performance.

3.1 Regression Analysis

Table 4: Model summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.784 ^a	.147	.135	4.92808

a. Predictors: (Constant), COST CONTROL, ABC SYSTEM, TRAINING, MANAGEMENT

Table 4: model summary shows the study coefficient of determination of 0.147 implying that the predictors (a) as presented by table 4.3 affect only 14.8% of variation in financial performance.

Table 5: ANOVA

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.970	4	5.243	.216	.919 ^b
	Residual	121.430	5	24.286		
	Total	142.400	9			

a. Dependent Variable: ROA

b. Predictors: (Constant), COST CONTROL, ABC SYSTEM, TRAINING, MANAGEMENT,

Source: primary data from SPSS

The data in table 5 above shows that there is no discernible correlation between the financial performance and the activity-based costing approach. The p value of 0.919, which is higher than 0.05, suggests this. Cost, activity-based costing system, training, and management are all predictors with p values that are greater than the significant level of 5%. The data in table 4.4 above show that there is no discernible correlation between the financial performance and the activity-based costing approach. The p value of 0.919, which is higher than 0.05, suggests this. Cost, activity-based costing system, training, and management are all predictors with p values that are greater than the significant level of 5%.

Table 6: Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.396	5.259		1.787	.134
	ABC SYSTEM	-.078	.206	-.186	-.378	.721
	TRAINING	.247	.873	.323	.283	.789
	MANAGEMENT	.677	2.446	.701	.277	.793
	COST	-.690	2.111	-.713	-.327	.757

a. Dependent Variable: ROA

Source: primary data from SPSS

Table 6: The relationship impact of activity-based costing system and financial performance can be summarised by the following equation:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Y is the dependent variable (ROA)

X = X1(ABC system), X2(training), X3(management), X4 (Cost) E constant

$$Y = 9,396 - 0.078x_1 + 0.247x_2 + 0.067x_3 - 0.690x_4$$

The linear equation above depicts that including ABC system represented by (X1) show results that there is no significant improvement in financial performance (ROA) by -0.078 units. Moreover, there is also a positive contribution provided by training (X2) of 0.247 and also (management) X3 provides a positive 0.67. More so, (Cost control) X4 also has no significant improvement in financial performance since it is negative -0.690. As depicted both the constant and independent variable with positive coefficients contributing significantly to the model while those with negative contributes negatively to financial performance.

Furthermore, activity-based costing has a negative beta of -0.186, which implies a negative relationship with financial performance. The t test value of -0.378 shows the effect of activity-based costing surpasses error by 0.206 times. Cost control has a negative beta at - 0.713, which implies that there is a negative relationship with financial performance. The t -test value of -0.327 shows that effect of cost control surpasses the error by 2.111 times. These findings that both activity-based costing system and cost control has no effect on financial performance. These results are supported by Samuel (2019) and Pokorná (2016) who observed that there was no link.

Mwila, Masaka and Tukumana (2022) and Vetchagool et al. (2020), jointly confirm the results that Small and Medium Enterprises that used ABC system had reported a favourable impact on cost management and cost reduction. However, Ezealo, Nzewi and Ezekwesli (2022); Charaf, Rahmounib and Sabara (2022)'s studies revealed that that there was no improvement in financial performance. Most people agreed that using an activity-based costing system is problematic. Molela and Ismail (2020) highlighted these challenges as lack of administrative support, high implementation costs, and perception.

4. Conclusion

The study's major goal was to find out how ABC affected the financial performance of SMEs in Zimbabwe. The study revealed that adopting the system brought several challenges to SMEs, which were lack of management support, lack of expertise costly to implement the system, which reveals that most of SMEs are finding it difficult to surpass these. In addition, these firms were facing a challenge in identifying the cost driver. The research findings were that there was no link between ABC on cost control and economic performance of SMEs. These results were supported by Samuel (2019) and Pokorná (2016) who revealed that there was no improvement of economic performance.

5. Recommendations

The researchers have come up with suggestion in line with the research findings that are obtained in this study. The management in charge of implementation of various activities may consider the following.

- Training of employees especially those in the accounts department
Activity based costing system should be implemented were employees who possesses necessary skills and knowledge on the skills. Since the research revealed that there were facing a lot of challenges in identifying cost drivers this is an indication of lack of knowledge.
- Seek financial support
As the researchers were analysing the finding it came into light that there are many financial constraints, which were being faced by the company. There is need for the company to seek for financial assistance from financiers of Small to Medium Enterprises.

6. References

- Ahmad, K. (2017). The implementation of management accounting practices and its relationship with performance in Small and Medium Enterprises. *International Review of Management and Marketing*, 7(1), pp .342-353.
- Akeem, L.B., (2017). Effect of Cost Control and Cost Reduction Techniques in Organizational Performance. *International Business and Management*, 14(3), pp.19-26.
- Al-Halabi , N .B. and Shaqqourl ,O.F. (2018). The effect of activity based costing (ABC) on the efficiency of performance in Jordanian manufacturing corporations-An Analytical Study. *Accounting and Finance Research*, 7 (1), pp. 262-271.
- Al-Khadash, H. A and Nassar, M. (2010). The implementation of activity-based costing and the financial performance of the Jordanian Industrial Shareholding Companies. *Afro-Asian Journal of Finance and Accounting*, 2 (2), pp.135–153.

- Alsayegh, M. F. (2020). Activity based costing around the world: Adoption, implementation, outcomes and criticism. *Journal of Accounting and Finance in Emerging Economies*, 6 (1), pp.251-262.
- Arabsa, R. M and Achuora , J.O. (2020) .Strategic Inventory Management Practices and the Performance of Supermarkets in Nairobi County, Kenya. *European Journal of Business and Management Research*, 5 (2), pp 1-9.
- Basias , N. , Pollalis, Y.(2018). Quantitative and Qualitative Research in Business and Technology: Justifying a Suitable Research Methodology, *Review of Integrative Business and Economics Research*, 7 (1) pp. 91-10.
- Boris, P. (2013).Specifics of activity based costing applications in hospital management. *International journal of Collaborative Research on internal Medicine and public health* , Tomas Bata University in Zlin, Czech Republic.
- Brick,J .M., Andrews, R.W. ,Mathiowetz, N.A.,(2015) *Single phase Mail Survey Design for Rre Population Subgroups*.
- Cagwin, H. and Bouwman, M. A. (2012) .Contribution margin analysis: no longer relevant/strategic cost management: The new paradigm. *Journal of Management Accounting Research*, Fall: 1-8
- Charaf, K., Rahmounib, F. A, Sabar, M (2022) .The association between Activity-Based Costing and performance: Empirical evidence from Moroccan companies *Accounting and Management Information Systems* 21 (1), pp. 25-50
- Cohen, S. Venieris, G., Kaimenak, i E. , (2005) ABC: adopters, supporters, deniers and unawares. *Managerial Auditing Journal*, 20 (9), pp .981-1000.
- Compton, R. (2016). Tektronix: Portable Instruments Division (A) and (B). Harvard Business School 9:138-142
- Doll, J. (2017) Structured Interviews: Developing Interview Skills in Human Resource Management Skills. *Management Teaching Review*, 3 (1), pp 46-61.

- Drury, C. (2012). *Management and Cost Accounting*. 8th Edition, Thompson, London.
- Drury, C. (2013) *Management accounting for business*. 7th Ed. Thomson Learning: London.
- Drury, C. (2017). *Management and Cost Accounting* 10th Ed. Cengage Learning. United Kingdom.
- Efflong, S. A. and Akpan, E.A. (2019) Effects of Activity Based Costing (ABC) on the +Productivity of Manufacturing Company. *International Journal of Advanced Research*. 7(1), 753-765
- Ezeagba, C. E. (2014). Activity based costing and organizational performance in selected manufacturing firms in south eastern Nigeria. *International journal of finance and management in practice*, 3(2):45-67
- Ezeala , G., Nzewi, U. C., and Ezekwesili, T.P.(2022) Effect Of Activity Based Costing On Financial Performance Of Consumer Goods Manufacturing Companies In Nigeria. *Journal of Global Interdependence and Economic Sustainability* | ISSN: 2955-0815 1(3):42-57
- Fincham, J., (2018). *Response rate and responsiveness for survey*, Standards and the Journal.
- Fleming, J. and Zegwaard. (2018) Methodologies, methods and ethical considerations for conducting research in work integrated learning .*International Journal of Work-integrated Learning*, 19 (3), pp.205-2013
- Hamad, F. , Yousif, M. and Fatehaerrhman, E. (2020).Availability of the Fundamental Factors for Adoption of Activity-Based Costing/Manufacturing (ABC/M) at Saudi University .*International Journal of Accounting Research*, 4(4):78-87
- Hardan, A.S and Shatnawi, M.T. (2013). Impact of Applying the ABC on Improving the Financial Performance in Telecom Companies .*Abdullah International Journal of Business Management*, 8(12):34-45

- Heale, E.R .and Twycross, A.(2018).What is a case study ?Evidence based Nursing ,21 (1),7-8
- Ifrah, A.M., Karosi , E. & Andabu, I.T. (2015). Analysis of the effectiveness of Budgetary Control Techniques on Organizational Performance at Dara-Salaam Bank Headquarters in 2Canadian Center of Science and Education Hargeisa Somaliland. *International Journal of Business Management and Economic Research (IJBMER)*, 6(6), 327-340
- Joshi, A, Kale, S., Chande, S. and Pal, D.K. (2015).Likert scale: Explored and explained. *British Journal of Applied Science and Technology*, 7 (4), pp 398
- Kocakulah, M. C., Foroughi, A., Stott, A., Manyoky, L. (2017). Activity based costing: helping Small and Medium-sized Firms achieve a competitive Edge in the Global Marketplace. *J Account Mark* 6:245
- Lawal, B. A. (2017) . Effects of cost control and cost reduction techniques in organizational performance. *International Business and management* 14 (3), pp.19-26
- Lyne, L. (2014). Examples of Operational Costs. Hearst Newspaper.
- Mapakame, E. (2014). ZSE: Rags to riches and back to rags, The Sunday Mail, Business News, available at <http://www.sunday.co.zw/zse:rags>.
- Molela, G .F and Ismail, I.J. (2020) .Adoption discrepancies of Activity-Based Costing among the manufacturing SMEs in the developed and developing countries: Empirical literature review, *Research journal's Journal of Accounting*, 8(6):67-87
- Munanga, E. (2013). Financial Challenges Faced by Retail SMEs Operating in a Multi-Currency Environment. A Case of Gweru Urban, Zimbabwe. *Asian Economic and Financial Review*, 3(3):377-388.
- Miller-Nobles,I, Mattison, B., and Matsumura, E. (2018). *Horngren's financial and managerial accounting* .6th ed , Pearson , London United Kingdom.

- Mohammed, S. R.(2019) .Usage and impact of Activity Based Costing (ABC) Technique on the Performance of selected SMEs in Lagos State, Nigeria, *International Journal of Operational Research in Management ,Social Sciences & Education* ,5 (1),pp45-49.
- Mwila, A., Masaka, V., Tukumana, K.(2022) The impact of Activity-Based costing on SMEs Financial Performance in Lusaka (i) ,Zambia ,CECCAR Business Review, No 7,pp.43-54,
- Nair, S., Tan, X. (2018), Factors Influencing the Implementation of Activity-Based Costing: A Study on Malaysian SMEs, *International Business Research*, (8), pp. 133-141,
- Oseifuah, E. K. (2014). Activity based costing (ABC) in the public sector: benefits and challenges. *Problems and Perspectives in Management*, 12 (4), pp. 581-588.
- Palaiologk, A. and Tjalsma,H. (2012). An Activity-Based Costing Model for Long term Preservation and Dissemination of Digital Research data: the case of Data archiving and Networked Services DANS. *International Journal of Digit Library*, Issue 12 pp 195-12
- Pokorná, J. (2016). Impact of Activity-Based Costing on Financial Performance in the Czech Republic, *Acta Universitatis Agriculturae at Silviculture Mendelianae Brunensis*, 64 (2), pp. 643-652
- Pham, D.C., Nguyen, L. S. ,Doan, T. N., Ta, T. T. ,Pham ,H.L.(2021),The influence of Activity Based Costing Implementation on firm Performance: An empirical evidence from Vietnam, Montenegroin.*Journal of Economics*, 17 (4), pp.167-177
- Reyhanogiu , M. (2004).Activity-Based costing System Advantages and disadvantages. *SSRN electronic journal*, ARTICLE <https://www.researchgate.net>

- Rilo, M. R. and Alieto O, E. (2018). Indirectness Markets in Korean and Persian English Essays: Implications for teaching Writing to EFL Learners. *International journal of English as an international Language*, 13 (2), pp.166-184
- Salem, A. E.S. Mazhar, S. (2014) The Benefits of the Application of Activity Based Cost System - Field Study on Manufacturing Companies Operating In Allahabad City India. *The Journal of Business and Management*, 16 (11). pp 39-45
- Saunders, M.N.K. (2019). *Research methods for business students*. Pp .Pearson Newyork
- Samuel, R. M. (2019). Usage and impact of activity based costing (ABC) .Technique on the performance of selected SMEs in Lagos state, Nigeria. *International journal of operational research in management, social sciences & education*, 5(1), pp 45-59.
- Sammut-Bonnici , T. and McGee J., (2017) Case study, Valletta :John Wiley and Sons Limited.
- Shibab, K. S. and Sivaram, P. R. (2017), Activity Based Costing System. *International Journal Recent Scientific research*, 8(7), pp .18288-18306
- Surucu , L. and Maslakci , (2020) Business & Management Studies: *An International Journal*, Vol.8(3):23-34
- Vallabh, D. and Mhlanga (2015), Influence of demographic factors on business performance in small medium enterprises. *Article in African Journal of Hospitality Tourism and Leisure*.4 (2):54-59
- Wanyonyi, W. E., Ronald, M. O., Mindila, R. and Mwiti, E. (2017). Evaluation of activity based cost analysis as a tool on financial performance in selected public sugar firms in Kenya. *International journal of advancement in engineering technology, management and applied science*, 4(4), pp .57-65.
- Zaneta Pietrzak, Z., Wnuk-Pel, T. and Christauskas, C. (2020). Problems with activity based costing implementation in Polish and Lithuanian Companies. *Inzinerine Ekonomika-Engineering Economics*, 31 (1), pp 26-38.