Advances in Consumer Research
https://acr-journal.com/
Volume-2 | Issue-5 | Oct 2025

Original Researcher Article

A Study on the Financial Performance Evaluation Using Dupont Analysis in A Selected Supermarket Chain

Dr. Namita Mishra[1], Dr. Anupama Pardeshi[2] and Dr. Saket Rathi[3]

[1]Professor I.T.S School of Management Mohan Nagar Delhi – NCR
Email: drnamitam@gmail.com
[2]Assistant Professor Medicaps University, Rau, Indore. Madhya Pradesh, India
Email: Anupama.pardeshi@medicaps.ac.in
[3]Assistant Professor, Medicaps University, Rau, Indore. Madhya Pradesh, India
Email: Saket.rathi@medicaps

Received: 04/09/2025
Revised: 19/09/2025
Accepted: 09/10/2025
Published: 26/10/2025

ABSTRACT
Each and every corporate analyses the financial performance to find out the strength and weakness. there are many techniques usually applied by the analyst to evaluate the financial performance. Ratio analysis widely used for analysing financial performance of the company. Different ratios have calculated for analysing different aspect of finance of the company such as liquidity group of ratios for knowing the liquidity position, Turnover groups to know different turnovers and so on and it takes time so ratio analysis has several inherent limitations. For improved and complete understanding of company's position DuPont analysis is used in corporate which shoes the effect through DuPont chart and graphs. In this analysis The ROE breaks into three part and the ratios are calculated to find the impact.it provides a prominent view on the profitability. The study focused on three aspects of the financial matrices and financial statement including cash flow of the company will be analysed to find out the Role and importance of DuPont in the financial performance of the corporate. This study is a case analysis on a supermarket and seven years data has been analysed to check the financial performance.

Keywords: DuPont analysis, Ratio analysis, ROE, net profit margin, equity multiplier, Asset turnover, Leverage and profitability.

INTRODUCTION

Financial analysis is a vital tool in business operations that supports companies in ascertaining their performance and strengths. Financial analysis reports exist in various forms that support investors in making essential investment decisions and help companies in attaining their objectives. Ratio analysis is widely technique used to analyse financial performance. Although a useful means of analysing financial statements, ratio analysis has several inherent limitations. It relies mostly on historical data, which may not reflect future performance. Ratios often capture snapshots in time and fail to account for the dynamic nature of companies and external market fluctuations. In addition, as a result of variations in business operations, accounting policies, and economic environments, organizations might compare deceitfully. To have a complete understanding of the financial position of a company, analysing a single ratio like return on assets might be insufficient because it does not consider the factors behind the performance. Dissecting a company's profitability ratios into their individual elements, the DuPont analysis eliminates these limitations. DuPont provides a more explicit breakdown of how profitability is generated by breaking up return on assets (ROA) into net profit margin, asset turnover, and equity multiplier. This allows analysts to identify specific operating strengths and vulnerabilities within a firm. High asset turnover, indicating efficient use of assets, or a high net profit margin, indicating healthy pricing power and cost management, are just two indicators that can drive a high ROA. More insightful and nuanced analysis is given by reviewing these individual factors over time and with the industry peers to enable astute strategic planning and investment decisions. Breaking down good financial performance is very important for firms that are operating in competitive businesses, especially the grocery business where profit margins have historically been tight. DuPont analysis provides a wonderful means to break down the financial performance of a firm and see how profitability, efficiency, and leverage interrelate. Using this metric, stakeholders will be able to see what is driving return on equity and base decisions on a better understanding. For retail companies operating in supermarkets, cost and operational effectiveness management is important; thus, complete utilization of the DuPont model can provide a picture of weaknesses and strengths of their financial approach. DuPont Analysis is an influential finance metrics measurement tool that breaks down a company's return on equity (ROE) into its components, giving an all-around perspective of the drivers of profitability. This measurement tool was created by the DuPont Corporation during the 1920s. The DuPont Analysis framework enables investors and managers to know how the efficiency of operations, the efficiency of using assets, and financial leverage together bring about financial performance (DuPont, 1920).

The DuPont analysis deconstructs ROE into three primary constituents: profit margin, asset turnover, and financial leverage as business supply chains continue to grow in complexity, now underscored by advances in technology, companies have to adapt financial analysis in consonance The deployment of new systems has the potential to optimize data-driven decision-making, consequently enabling full analysis of profitability. By dissecting return on equity (ROE) into its constituent parts—profit margin, asset turnover, and financial leverage—the DuPont Analysis is a critical tool utilized in assessing financial performance. Due to this robust approach, stakeholders can comprehend the underlying building blocks influencing the financial success of an organization. Analysts can pinpoint certain areas of strength or weakness by looking at these component parts, allowing them to make strategic decisions. For example, in the case of a grocery store chain, better cost control can lead to broader profit margins, but better inventory control practices can lead to more asset turnover. Additionally, the relationship between these metrics shows how much it is a must for aligning monetary goals with the operational effectiveness which in turn will lead to increased market positioning as well as customer satisfaction.

Knowledge of DuPont analysis is critical to the evaluation of supermarket chain financial performance, providing a complete decomposition of shareholder return (ROE) into its constituent parts. This framework of analysis allows for a complete examination of how a supermarket can transform sales into profit and manage assets for generating revenues. In addition, by emphasizing operational efficiency through better communication systems, it can be directly related to better financial indicators, showing the concrete relationship between technology adoption and results of performance. Moreover, the result of the supermarket market orientation strategy in terms of customer service has a great influence on the overall financial outcome, showing the intricate relationship between satisfaction of the customer, quality of the service and success in business. As such, applying DuPont analysis in this regard not only explains the profitability determinants, but also highlights the significance of strategic management choices. The drivers of return on equity (ROE), profit margin and asset turnover. ROE is also a key metric that indicates how well supermarket chains use equity financing to make profits. It also provides insights into the efficiency of operating against competitive pricing pressures and the Profit Margin, which shows the percentage of revenue converted into profit. However, asset turnover shows asset production efficiency and the highest ratios reflect better asset management. All of these combined elements.

REVIEW LITERATURE

Recent studies have demonstrated the model's relevance to the grocery sector, where fierce rivalry and narrow profit margins necessitate a keen understanding of financial metrics (Khan & Jain, 2021).

Smith and Johnson (2023) examined the financial performance of a leading supermarket chain in the United States through Dupont and revels leverage can increase ROE.

Suma Dronagiri et al (2023) The study is analysed using equity multiplier, net profit margin, asset turnover ratio to calculate return on equity. s. in his paper he has observed that It is observed that Net Profit Margin has the highest contribution and Equity Multiplier has the least contribution towards performance of the company. Timothy Aikor Shirgba (2023) explained an analyst can better comprehend what influences a company's return on equity (ROE) by using the DuPont identity. Compared to more constrained equity valuation tools, the main benefit of DuPont analysis is the more comprehensive view of a company's entire financial health and performance that it offers.

Kim Hak -Seon (2016) The foundation of DuPont analysis is the examination of return on investment (ROI) and return on equity (ROE). The disaggregated return on equity performance into three parts: the equity multiplier, total asset turnover, and net profit margin.

Deepak R, et al (2018) explained the potential use of ROE as a leading indicator to forecast stock investment returns was also investigated in the study. However, this study found no evidence to support this. The study can be expanded to examine how taxes and interest affect ROE.

Al-khoury Abeer (2022) Decrease in Em decreases financial leverage. He has analysed data on several banks to reach to the outcome that financial ratios are an essential tool to measure or assess the financial performance of a company despite its limitations.

Dr. M. Mohana Sundari et al (2020) attempt to explain that although ratio analysis is the primary method of analysing companies' performance but for the ROI du Pont analysis is instrumental.

Adawiyah Nida Nusaibatul et al (2022) has explain Net profit margin, ROE, ROI and EM are verified through the Dupont analysis. So, to check the financial performance of the company Du Pont analysis is most suitable

Research Gaps

The ratio analysis and leverage analyse the financial performance such as liquidity and other factors and it ignores the factors growth and downturns

Potential impact of taxes and interest rates on ROE are studied, but no study has comprehensively examined their role in financial performance assessment.

Objective of the study

To Analyse financial performance of selected supermarket chain with Du pont analysis components like Net profit Margin, Asset turnover ratio, Equity multiplier on ROE

RESEARCH METHODOLOGY

The purposed study is a case analysis. Data has been analysed for seven years and collected from different website. Dupont ratios have calculated to analyse the data. Financial statement, cash flow of Dmart has been referred to evaluate the financial performance through DuPont. These studies primarily use a quantitative methodology, relying on financial statements as their main data sources. DuPont analysis facilitates the decomposition of ROE into profit margin, asset turnover, and financial leverage, revealing the dimensions of operational efficiency, asset use efficiency, and financial leverage of firms. Results of these analyses often show operational performance, whether high or low, which is critical in providing support to firms. Special thanks to Vanshika Tyagi, Financial Data Analyst ,Nirvana Solutions for helping in data reduction and analysis.

Research Design

Avenue Supermarts Limited, DMart, is an Indian retail corporation that operates a chain of supermarkets in India. The company has its headquarters in Mumbai. As of March 2023, In the study 7 years starting from 2027 to 2023 profit loss statement has been analysed to find the financial performance of the Dmart . Cash flow statement also studied to check the financial variables and its impact on the performance of the company. Secondary data has been collected from Screener, capitaine, Yahoo finance and from other website, different journals and books have been reviewed to study literatures.

Data set Used										
PROFIT & LOSS	414.55									3,062.59
Report Date	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23
Sales	4686.48	6439.43	8583.76	11897.7	15033.2	20004.52	24870.2	24143.06	30976.27	42839.56
Raw Material Cost	4086.53	5648.47	7435.62	10357.25	12846.95	17445.49	21441.68	20855.56	26891.77	36884.77
Change in Inventory	102.1	161.28	132.08	276.22	211.31	444.65	338.75	300.88	494.38	500.82
Power and Fuel	45.31	59.33	79.24	99.41	121.26	152.8	188.24	174.2	207.86	314.62
Other Mfr. Exp	123.53	155.35	241.36	332.9	373.72	499.72	645.96	746.43	805.85	1116.56
Employee Cost	87.34	134.06	149.04	192.67	283.14	356.17	457.14	537.58	617.36	748.16
Selling and admin	420.11	582.8	647.37	71.24	96	135.84	119.23	108.69	143.41	212.04
Other Expenses	-315.52	-435.56	-501.25	151.27	170.58	225.84	228.39	276.65	302.05	425.46

Other Income	16.27	20.27	17.02	27.7	87.75	48.33	59.99	194.43	113.64	127.6
Depreciation	57.01	81.54	98.43	127.82	159	212.49	374.41	414.16	498.08	638.87
Interest	55.68	72.36	91.34	121.98	59.54	47.21	69.12	41.65	53.79	67.41
Profit before tax	244.86	322.63	491.71	747.08	1222.07	1421.94	1744.77	1483.45	2064.12	3060.09
Tax	83.48	110.92	171.47	268.28	415.79	519.48	443.79	384.02	571.72	681.75
Net profit	161.37	211.67	320.24	478.75	806.26	902.54	1301.08	1099.49	1492.55	2378.51
Dividend Amount										
Effective Tax Rate	34%	34%	35%	36%	34%	37%	25%	26%	28%	22%
EBITDA	357.54	476.49	681.48	996.83	1,440.59	1,681.72	2,188.40	1,939.32	2,616.14	3,766.54

Quarters

Report Date	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23
Sales	7788.94	9217.76	8786.45	10038.07	10638.33	11569.05	10594.11	11865.44	12624.37	13572.47
Expenses	7120.36	8351.3	8047.17	9029.83	9746.31	10603.79	9822.6	10830.17	11619.4	12452.58
Other Income	27.5	25.96	32.57	29.14	35.57	31.56	33.07	38.74	36.92	32.92
Depreciation	116.01	128.3	146.33	144.74	161.96	168.09	164.08	162.18	174.36	189.33
Interest	12.37	13.95	16.63	17.22	17.68	16.98	15.53	14.57	15.59	14.55
Profit before tax	567.7	750.17	608.89	875.42	747.95	811.75	624.97	897.26	851.94	948.93
Tax	149.94	197.64	182.14	232.53	62.24	222.11	164.87	238.55	228.59	258.52
Net profit	417.79	552.56	426.83	642.93	685.77	589.68	460.13	658.75	623.56	690.61
Operating Profit	668.58	866.46	739.28	1008.24	892.02	965.26	771.51	1035.27	1004.97	1119.89
EBITDA	696.11	892.45	771.93	1,037.42	927.65	996.86	804.61	1,074.05	1,042.10	1,153.01

BALANCE SHEET

Report Date	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23

Equity Share Capital	546.75	561.54	561.54	624.08	624.08	624.08	647.77	647.77	647.77	648.26
Reserves	408.82	637.65	958.9	3217.7	4044.97	4963.37	10431.97	11535.94	13029.87	15430.44
Borrowings	640.82	904.26	1192.34	1497.32	439.25	700.15	333.19	392.71	646.94	642.98
Other Liabilities	211.26	251.36	388.78	480.18	539.92	717.9	663.23	1078.63	1146.4	1382.84
Total	1807.65	2354.81	3101.56	5819.28	5648.22	7005.5	12076.16	13655.05	15470.98	18104.52
Net Block	1171.69	1528.08	2093.52	2577.75	3399.97	4400.37	5948.03	7008.8	9260.02	11340.48
Capital Work in Progress	88.78	98.12	81.69	152.89	147.07	376.84	364.4	1019.59	1129.34	829.16
Investments	15.54	15.23	29.33	25.69	68.18	16.53	14.68	2.95	5.94	202.2
Other Assets	531.64	713.38	897.02	3062.95	2033	2211.76	5749.05	5623.71	5075.68	5732.68
Total	1807.65	2354.81	3101.56	5819.28	5648.22	7005.5	12076.16	13655.05	15470.98	18104.52
Receivables	9.54	7.07	8.42	21	33.52	64.37	19.55	43.58	66.89	62.16
Inventory	378.33	539.61	671.69	947.9	1163.45	1608.65	1947.4	2248.28	2742.66	3243.48
Cash & Bank	55.41	38.04	35.1	1884.29	560.18	219.07	107.88	1445.58	298.58	1408.33
No. of Equity Shares	546752880	561542680	561542680	624084486	624084486	624084486	647774691	647774691	647774691	648263978
New Bonus Shares										
Face value	10	10	10	10	10	10	10	10	10	10
CASH FLOW:										

Report Date	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23
Cash from Operating Activity	198.14	222.02	433.47	455.28	729.99	806.84	1280.14	1375.14	1372.35	2630.27
Cash from Investing Activity	-270.17	-473.88	-632.89	-2481.61	463.55	-958.37	-4656.56	-1110	-1289.49	-2313.1
Cash from Financing	65.23	234.45	196.44	2025.26	-1159.06	208.98	3357.42	-179.5	-179.24	-205.14

How to cite: Mishra N, *et al*. A study on the financial performance evaluation using Dupont analysis in a selected supermarket chain. *Advances in Consumer Research*. 2025;2(5):246–253.

Activity										
Net Cash Flow	-6.8	-17.41	-2.98	-1.07	34.48	57.45	-19	85.64	-96.38	112.03
PRICE:				637.85	1324.8	1471.1	2187.5	2859.05	4003.35	3401.05
DERIVED:										
Adjusted Equity Shares in Cr	54.68	56.15	56.15	62.41	62.41	62.41	64.78	64.78	64.78	64.83

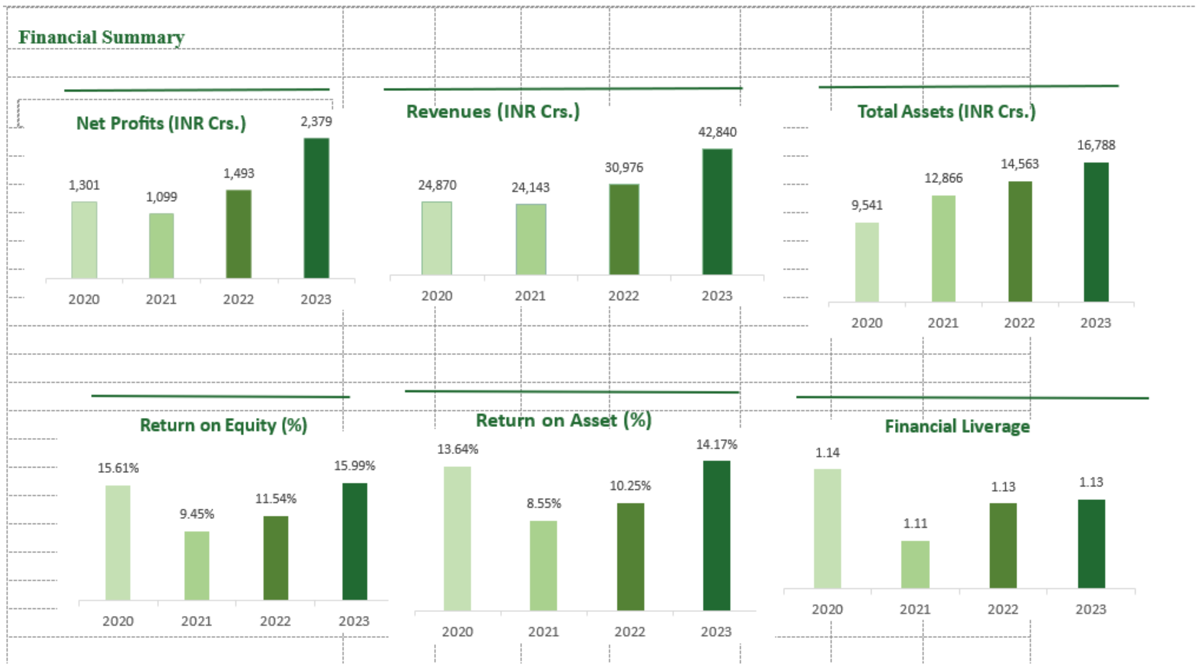
Return on Equity(ROE)							
	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23
Net Profit	478.8	806.3	902.5	1,301.1	1,099.5	1,492.6	2,378.5
Average Shareholder Equity	2,681.1	4,255.4	5,128.3	8,333.6	11,631.7	12,930.7	14,878.2
Return on Equity(ROE)	17.86%	18.95%	17.60%	15.61%	9.45%	11.54%	15.99%

ROE - Dupont Equation							
	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23
Net Profit	478.8	806.3	902.5	1,301.1	1,099.5	1,492.6	2,378.5
Revenue	11,897.7	15,033.2	20,004.5	24,870.2	24,143.1	30,976.3	42,839.6
Net Profit Margin (A)	4.02%	5.36%	4.51%	5.23%	4.55%	4.82%	5.55%
Revenue	11,897.7	15,033.2	20,004.5	24,870.2	24,143.1	30,976.3	42,839.6
Average Total Asset	4,460.4	5,733.8	6,326.9	9,540.8	12,865.6	14,563.0	16,787.8
Asset Turnover Ratio (B)	2.7x	2.6x	3.2x	2.6x	1.9x	2.1x	2.6x
Average Total Asset	4,460.4	5,733.8	6,326.9	9,540.8	12,865.6	14,563.0	16,787.8
Average Shareholder Equity	2,681.1	4,255.4	5,128.3	8,333.6	11,631.7	12,930.7	14,878.2
Equity Multiplier (C)	1.66x	1.35x	1.23x	1.14x	1.11x	1.13x	1.13x
Return On Equity (A*B*C)	17.86%	18.95%	17.60%	15.61%	9.45%	11.54%	15.99%

Return on Asset (ROA)							
	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23
Net Profit	478.8	806.3	902.5	1,301.1	1,099.5	1,492.6	2,378.5
Average Total Asset	4,460.4	5,733.8	6,326.9	9,540.8	12,865.6	14,563.0	16,787.8
Return on Asset (ROA)	10.73	14.06%	14.27	13.64%	8.55%	10.25%	14.17%

	%		%				

ROA - Dupont Equation							
	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23
Net Profit	478.8	806.3	902.5	1,301.1	1,099.5	1,492.6	2,378.5
Revenue	11,897.7	15,033.2	20,004.5	24,870.2	24,143.1	30,976.3	42,839.6
Net Profit Margin (A)	4.02%	5.36%	4.51%	5.23%	4.55%	4.82%	5.55%
Revenue	11,897.7	15,033.2	20,004.5	24,870.2	24,143.1	30,976.3	42,839.6
Average Total Asset	4,460.4	5,733.8	6,326.9	9,540.8	12,865.6	14,563.0	16,787.8
Asset Turnover Ratio (B)	2.7x	2.6x	3.2x	2.6x	1.9x	2.1x	2.6x
Return On Asset (A*B)	10.73%	14.06%	14.27%	13.64%	8.55%	10.25%	14.17%



Analysis

ROE has fluctuated over the years and with value of 9.45 was lowest in Year Mar-21 during the study period. ROE Ratio with value of 17.60 was highest in Year Mar-19. ROE Ratio with value of 15.99 is greater than Average ROE of 12.52 in 2023.

ROA has increased from 10.73% in FY2017 to 14.17% in FY2023. While the asset efficiency remains constant, the reason for increase in ROA is increased net margin of the company. The study reveals that the profit margins decline due to increase in operational cost and the effective management of asset turn over and financial leverage allowed the super market to Maintain the ROE. As per the examined data it is seen the operational expenses are varying and due to that the ROE is also fluctuate but as the company maintains other things with operational efficiency the company able to maintain its profit margin. Their findings indicated that while profit margins initially declined due to increased operational costs, effective management of Cash flows, asset turnover and financial leverage allowed the chain to maintain a stable ROE. This study finds out that the highest asset turns over ratios were better positioned to navigate challenges and height lights the operational efficiency of the companies to maintain profitability in increasing order from year to year. The study reveals a balance approach in the financial leverage and controlling inventory and high asset turnover is important for sustaining the profitability of the company.

Future Research Directions

Despite of limitations applying Dupont analysis in supermarket chains. the impact of suitability practices on financial performance remains unexplored and the externalities have impact on ROE is also unable to justify through the Dupont ratios. Further research could investigate on the external matrices which has impact on the ROE simultaneously.

CONCLUSION

The application of DuPont analysis from 2017 to 2023 provides valuable insights into the dynamics of profitability, operational efficiency, management of cash, asset management investments in assets and management and for the overall financial strategy. As it is the era of retail chains and the landscape will continue to evolve, further research is essential to understand the long-term implications of financial performance variables. Dmart can strategically position itself to enhance its competitiveness and market share. Ultimately, the study underscores the necessity for continual assessment and adaptation in an evolving retail landscape, ensuring sustainable financial performance moving forward.

REFERENCES

1. Easters, DJ (2012) Global communication part 2: the use of apparel product data management technology. https://core.ac.uk/download/30632316.pdf
2. Smith, A., & Johnson, B. (2023). Financial performance evaluation of supermarket chains during the COVID-19 pandemic: A DuPont Analysis. Journal of Business Research, 140, 456-467
3. Dronagiri Suma & Maned Kiran CA (2023) A study on Financial Performance evaluation using DuPont Analysis of Avenue Supermarts Ltd, GSJ: Volume 11, Issue 9, September 2023 ISSN 2320-9186
4. Timothy Aikor Shirgba (2023) A study of financial performance using dupont analysis in a supply chain, The international journal of business & management 2321-8916
5. Deepak R, 2Dr. Kavitha D(2018) Financial Performance of Information Technology Industry in India using Du-Pont Analysis, International Journal of Management and Commerce Innovations ISSN 2348-7585 (Online) Vol. 6, Issue 1, pp: (355-364)
6. Kim Hak-Seon A Study of Financial Performance using DuPont Analysis in Food Distribution Market,September 2016 ,Culinary Science & Hospitality Research 22(6):52-60,DOI:10.20878/cshr.2016.22.6.005
7. Al-khoury Abeer, Haddad Hossam , Bawab Atef al-, Moham, wseas transactions on business and economics DOI: 10.37394/23207.2022.19.137 med Othman , khazaleh Ayman (2022), Financial Performance for Arab Bank using DuPont Analysis 2000-2021
8. Timothy Aikor, Shirgba Dr , A study on financial permeance using DU Pont analysis in a supply chain The international journal of business & management, the international journal of business & management, ISSN2321–8916,,99Vol 10Issue 11 DOI No.: 10.24940/theijbm/2022/v10/i11/BM2211-017November, 2022
9. Dr. M. Mohanasundari , Dr. P. Sundharesalingam , Mr. S. Naveen Raja and Mr. V.S. Sivaprakash
10. Using DuPont analysis to assess the financial performance of the selected companies in the plastic industry in India. GEDRAG & ORGANISATIE REVIEW - ISSN:0921-5077 VOLUME 33 : ISSUE 02 - 2020 http://lemma-tijdschriften.nl
11. Adawiyah Nida Nusaibatul , Cicilia Erly Istia , Mufid Suryani , Risa Septiani , Financial performance analysis using the du pont method at pt. Jasa armada indonesia tbk 2017-2022 period, Jurnal Ekonomi, Volume 11, No 03 Desember 2022ISSN: 2301-6280 (print) ISSN: 2721-9879 (online)