ANALYSING THE IMPACT OF EXCHANGE RATE ON FINANCIAL PERFORMANCE OF DHL LOGISTICS COMPANY

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ABSTRACT:
This study examines the impact of Exchange rate fluctuations on DHL logistics company's financial performance from 2019 to 2023.The major objective of study is to analyze profitability, liquidity and long-term solvency position of DHL logistics company and to analyze how the exchange rate impacts financial performance by taking profitability ratios of the company. Using ratio and regression analysis, the research highlights significant effect on profitability, liquidity, solvency and also how the exchange rate impact the profitability of the company. Key findings show profitability peaked in 2021 but declined in 2023, while liquidity weakened over time and solvency ratio as improved, reflecting reduced financial leverage. Regression results confirm a strong influence of exchange rate on financial performance. This study recommends advance hedging strategies operational efficiency and improved liquidity management to mitigate risk and sustain global competitiveness.
Keywords: Exchange rate, financial performance, DHL logistics, Profitability, Liquidity
JEL Classification Code: F, F0, F1, F18

INTRODUCTION OF THE STUDY:

Exchange rate are the rate at which one country’s currency is exchanged for another country’s currency which is crucial for trades and transactions on the international market. Exchange rates are the major determinant in the operations of numerous international organizations such as global logistics firm DHL, since every business invoice numerous transaction that are conducted in more than one currency. As DHL being a leading logistics company world over and it operates in more than 220 countries and territories, this makes its performance very influenceable to exchange rate changes. Such changes may impact on the cost structure, profitability and competitiveness of the firm in the international environment. It is very crucial to be aware of how the exchange rates work in connecting with DHL’s organization since it helps to analyze the organization’s involvement in controlling the financial risk as well as ensuring its stability in different countries.

For the operation of DHL specific problems associated with the fluctuations of the exchange rates can be crucial and have influence upon different aspects of the business activity. There are cases that domestic currency which can lead to less revenue if the income from operations in foreign countries is translated into the domestic currency. On the other side, countries can have a situation where their domestic currency traders in foreign exchange markets for higher revenues in foreign currency, this inflates the revenue figures but on the other end it raises the price of imported goods and services. Further, fluctuations in the exchange rate influence cost of hedge and financer thus challenging the strategy of DHL in as far as profitability and cash flow is concerned. Understanding these impacts will help companies like other possible financial risk which result in out of exchange rate fluctuations thus guaranteeing this organization’s better future in a competitive global environment.

STATEMENT OF THE PROBLEM:

Global logistics and supply chain management corporation DHL operates in many international markets with transactions in different currencies. With this international presence, financial performance at DHL

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is greatly affected by the changes in exchange rates. Fluctuations impact directly on revenue and profitability as well as indirectly on operational cost, debt management and investment decisions. With the unpredictable nature of world currency market today, sudden or longstanding exchange changes can bring unexpected losses to be incurred by DHL or affect its financial equilibrium and investor confidence. This research aims to analyze how exchange rate fluctuations affect DHL's financial performance, focusing on profitability, cash flow and financial risk exposure.

OBJECTIVES OF THE STUDY:

1. To analyze the profitability position of DHL logistics company.
2. To analyze the long- term solvency position of the company.
3. To analyze the impact of exchange rate of financial performance of the company.

REVIEW OF THE LITERATURE:

Krawczyk, & Kokot-Stępień, (2020), The Impact of the Exchange Rate on the Financial Result of Enterprises in the Transport Sector. The article examined the link between exchange rate fluctuations with financial results in the transport sector. It established an impact of currency volatility on profitability. Moreover, it stressed the importance of adopting hedging strategies to maintain financial stability.

Funso & Lawal (2020), The Exchange Rate Risk and Financial Sector Performance: Evidence from Nigeria. The study analyzed the effect of exchange rate risks on performance within the financial sector of Nigeria. It concluded that fluctuations in exchange rates negatively affect the profitability of companies that depend heavily upon them; hence, handling risks effectively may lessen the extent of their impact.

Setiawanta, Utomo, Ghozali, & Jumanto (2020), Financial Performance, Exchange Rate, and Firm Value: The Indonesian Public Companies Case The research focused on the influence of exchange rate fluctuations on the financial performance of public companies in Indonesia. It demonstrated that effective currency risk management leads to increased profitability and shareholder wealth.

Jamil (2019), Impact of Internal and External Factors on the Performance in Logistic Industry: A Case in DHL. The study revealed the internal and external factors influencing the performance of DHL, concentrating on the company's ROA. Controllable and uncontrolled factors were emphasized in relation to optimizing operational efficiency and profitability in the logistics sector under review.

Leggate (2000), The Impact of Exchange Rate Fluctuations on the Shipping Industry The study analyzed the implications of exchanges' rate volatility within the shipping industry, with a specific emphasis on its effect on financial viability and profitability. The study identified the firms exposed to international trade as confronting risks due to currency fluctuations.

RESEARCH METHODOLOGY:

Research design:

The study adopts An **Analytical Research Design** to examine the impact of exchange rate fluctuations on the financial performance of DHL Logistics. It uses existing financial data to analyze trends and relationships.

Period of the study :

The analysis covers a **five-year** period from **2019 to 2023**, capturing both short-term and long-term impacts of exchange rate fluctuations.

DATA COLLECTION :

Secondary Data: The research relies on secondary data collected from DHL Logistic company's annual financial reports (2019–2023) and other relevant financial documents. The sources include income statements, balance sheets, and official reports available on DHL's website.

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ANALYTICAL TOOLS USED:

1] Ratio Analysis: Used to measure profitability, liquidity, and solvency indicators, such as net profit ratio, operating profit ratio, ROI, current ratio, quick ratio, and debt-to-equity ratio.

2] Regression Analysis: Employed to evaluate the relationship between exchange rate fluctuations and key financial performance metrics, ensuring statistical significance and reliability of the results

LIMITATIONS OF THE STUDY:

The research is based on secondary data, and its accuracy depends on the reliability of these sources.
The analysis is limited to a five-year period, which may not capture long-term trends comprehensively.
The findings are specific to DHL Logistics and may not be generalizable to other organizations or industries.

ANALYSIS AND INTERPRETATION:

1] Profitability Position of the Company:

Table No. 1.1
Net Profit Ratio

1] Net profit ratio= Net profit/ Net sales × 100 [in € millions]

Year	Net profit	Net sales	Net profit ratio
2019	2,623	63,341	4.14
2020	2,979	66,806	4.45
2021	5,053	81,747	6.18
2022	5,359	94,436	5.67
2023	3,677	81,758	4.49

Source: Secondary data

The net profit ratio improved from 4.14% in 2019 to a peak of 6.18% in 2021, reflecting strong profitability. However, it declined to 5.67% in 2022 and 4.49% in 2023, indicating challenges in sustaining efficiency despite fluctuations in net sales.

Table No. 1.2
Operating profit ratio

2] Operating profit ratio= Operating profit/ Net sales × 100 [in € millions]

Year	Operating profit	Net sales	Operating profit ratio
2019	4,128	63,341	6.517
2020	4,847	66,806	7.255
2021	7,978	81,747	9.759
2022	8,436	94,436	8.933
2023	6,345	81,758	7.76

Source: Secondary data

The operating profit ratio improved steadily from 6.52% in 2019 to a peak of 9.76% in 2021, indicating enhanced operational efficiency. However, it declined to 8.93% in 2022 and 7.76% in 2023, reflecting challenges in sustaining operating performance.

Table No. 1.3
Return on investment

3] Return on Investment [ROI] = Net profit/ Total investment × 100 [in € millions]

Year	Net profit	Total investment	Return on investment

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2019	2,623	52,169	5.027
2020	2,979	55,307	5.386
2021	5,053	63,592	7.945
2022	5,359	68,476	7.826
2023	3,677	66,814	5.503

Source: Secondary data

The ROI increased from 5.03% in 2019 to a peak of 7.95% in 2021, indicating improved returns on investment. It slightly declined to 7.83% in 2022 and further to 5.50% in 2023, reflecting reduced profitability relative to investments.

Table no 1.4

Price earning ratio

4] Price Earning ratio= Share price/ Earning per share [EPS] [in € millions]

Year	Share price	EPS	Price Earning Ratio
2019	34.01	2.13	15.967
2020	40.50	2.41	16.804
2021	56.54	4.10	13.79
2022	35.18	4.41	7.977
2023	44.86	3.09	14.517

Source: Secondary data

The Price-Earnings (P/E) ratio fluctuated over the years, starting at 15.97 in 2019 and slightly increasing to 16.80 in 2020. It dropped to 13.79 in 2021 and reached a low of 7.98 in 2022, indicating lower investor confidence or higher earnings relative to share price. In 2023, it rebounded to 14.52, reflecting renewed market confidence or adjustments in earnings and share price.

2] Liquidity position of the company

Table no 2.1

Current ratio

1] Current ratio= Current asset/ Current liability [in € millions]

Year	Current asset	Current liability	Current ratio
2019	15,052	16,873	0.892
2020	18,261	17,389	1.05
2021	22,734	20,907	1.087
2022	22,332	22,264	1.003
2023	19,213	20,322	0.945

Source: Secondary data

The current ratio improved from 0.89 in 2019 to a peak of 1.09 in 2021, indicating better short-term liquidity. However, it declined to 1.00 in 2022 and further to 0.95 in 2023, reflecting reduced ability to cover current liabilities with current assets.

Table no 2.2

Quick ratio

2] Quick ratio= Current assets- Inventories/ Current liabilities [in € millions]

Year	Current assets	Inventories	Current liabilities	Quick ratio
2019	15,052	396	16,873	0.868
2020	18,261	439	17,389	1.024
2021	22,734	593	20,907	1.059
2022	22,332	927	22,264	0.961

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2023	19,213	1,061	20,322	0.893

Source: Secondary data

The quick ratio increased from 0.87 in 2019 to a peak of 1.06 in 2021, indicating improved liquidity excluding inventories. It then declined to 0.96 in 2022 and 0.89 in 2023, reflecting reduced short-term financial flexibility.

Table no 2.3
Cash ratio

3] Cash ratio= Cash and cash equivalent/ Current liabilities [in € millions]

Year	Cash and cash equivalent	Current liability	Cash ratio
2019	2,862	16,873	0.169
2020	4,482	17,389	0.257
2021	3,531	20,907	0.168
2022	3,790	22,264	1.674
2023	3,649	20,322	0.179

Source: Secondary data

The cash ratio improved from 0.17 in 2019 to 0.26 in 2020, indicating better liquidity. It remained stable at 0.17 in 2021, then spiked to 1.67 in 2022, reflecting a strong cash position relative to current liabilities. However, it decreased again to 0.18 in 2023, suggesting a reduced cash buffer.

3] solvency position of the company

Table 3.1
Debt to equity ratio

1] Debt to equity ratio= Total liability/ Shareholder's equity [in € millions]

Year	Total liability	Shareholder's fund	Debt to equity ratio
2019	52,169	14,117	3.695
2020	55,307	13,777	4.014
2021	63,592	19,035	3.34
2022	68,476	23,236	2.946
2023	66,816	22,477	2.972

Source: Secondary data

The debt-to-equity ratio decreased from 3.70 in 2019 to 2.95 in 2022, indicating a reduction in financial leverage and a stronger equity base. It remained relatively stable at 2.97 in 2023, suggesting a consistent level of debt relative to equity.

Table 3.2
Equity ratio

2] Equity ratio= Shareholder's equity/ Total assets [in € millions]

Year	Shareholder's equity	Total assets	Equity ratio
2019	14,117	52,169	0.27
2020	13,777	55,307	0.249
2021	19,035	63,592	0.299
2022	23,236	68,476	0.339
2023	22,477	66,814	0.336

Source: Secondary data

The equity ratio gradually improved from 0.27 in 2019 to 0.34 in 2022, indicating a stronger equity position relative to total assets. It slightly decreased to 0.34 in 2023, reflecting stability in the company's equity base.

REGRESSION ANALYSIS:

Regression analysis is used to examine the relationship between a dependent variable and multiple independent variables. In this study, the dependent variable is DHL's **financial performance** (net profit ratio, operating profit ratio, ROI, price earning ratio), while the independent variable is **Exchange rate**. The analysis aims to assess how exchange rate influence financial performance of DHL Logistics Company.

Model	Model	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	df1
1	1.000[a]	1	0.999	0.17209	1	1025.655	4

ANOVA						
Model		Sum of Squares	DF	Mean Square	F	Sig.
1	Regression	121.495	4	30.374	1025.66	.023[b]
	Residual	0.03	1	0.03		
	Total	121.524	5			

Source: Secondary data, computed from SPSS.

The regression model demonstrates an excellent fit, with an R Square of 1 and an Adjusted R Square of 0.999, indicating that 100% of the variance in the dependent variable is explained by the predictors. The model is statistically significant (F = 1025.66, p = 0.023), with a low standard error (0.17209) and minimal unexplained variation (Residual Sum of Squares = 0.03). This highlights the strong and significant impact of the independent variables on the dependent variable.

FINDINGS OF THE STUDY:

1. **Profitability**: Net profit(6.18) and operating profit(9.759) ratios peaked in 2021 but declined(4.49 and 7.76) by 2023, showing challenges in sustaining efficiency.
2. **ROI**: Increased to 7.945% in 2021 but dropped to 5.503% in 2023, reflecting reduced returns on investment.
3. **Liquidity**: Current(1.087), quick(1.059), and cash(0.168) ratios peaked in 2021 but declined(0.945,0.893 and 0.179) in 2023, indicating weaker short-term liquidity.
4. **Solvency**: Debt-to-equity and equity ratios improved steadily, showing reduced financial leverage and a stronger equity base.
5. **Exchange Rate Impact**: Regression analysis confirmed a strong influence of exchange rate fluctuations on financial performance ($R^2 = 1.000$).

SUGGESTION OF THE STUDY :

1) DHL should implement advanced hedging strategies to mitigate the impact of exchange rate fluctuations, which significantly affect profitability, as seen in the decline of net profit ratio from 6.18% in 2021 to 4.49% in 2023.

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2) The company should optimize operational efficiency, focusing on reversing the drop in operating profit ratio from 9.759% in 2021 to 7.76% in 2023.
3) The liquidity management needs improvement, as current ratio and quick ratio (1.087 and 1.059) in 2021 as decline to 0.945 and 0.893 in 2023.

CONCLUSION :

The research confirms that exchange rate fluctuations significantly impact DHL's financial performance, particularly in profitability, liquidity and solvency positions. While profitability peaked in 2021 and decline in 2023, and liquidity ratios also remains decreasing in 2023. Despite improvements in financial leverage, solvency ratios maintaining consistent performance in volatile market remains a challenge. By resolving these issues through advanced risk management, operational efficiency and financial planning, DHL can sustain growth and remain competitive in the global logistics industry.

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