Exchange Rate Volatility and Trade Dynamics of Global Fashion Brands: Empirical Evidence from H&M and Zara in India

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Abstract: The global fashion industry is incredibly sensitive to changes in currency values, which can really shake up import and export activities in emerging markets like India. This study examines the influence of exchange rate volatility on the trade performance of global fashion brands H&M and Zara in the Indian market. Using data from 2015 to 2024, it applies empirical techniques including correlation analysis, cointegration tests, and regression models. Findings reveal that the depreciation of the Indian Rupee against the US Dollar and Euro had a significant effect on the trade volumes of both brands, particularly affecting imports more than exports. Furthermore, the study sheds light on how India's GDP, global economic trends, and fashion trade are interconnected. The results suggest a strong interdependence between import and export flows, emphasizing the need for strategic currency risk management and adaptive supply chain operations.

Keywords: Currency fluctuations, Global fashion brands, Exchange rate volatility, Import and export trade, H&M, Zara, India.

1. Introduction

The global fashion industry has been a key player in international trade and economic growth. The arrival of international brands like H&M and Zara in India has made a significant impact on the country's retail landscape, attracting foreign investments and creating jobs. The ongoing success of these brands in India is crucial for fostering economic development, keeping the market competitive, and ensuring a healthy balance in the fashion retail sector. However, as India's economy becomes more globalized, fluctuations in currency exchange rates are increasingly affecting the financial performance and trade dynamics of these brands.

Looking at trade and financial data from 2015 to 2024, it is observed that the import and export volumes of fashion products in India have been swayed by these currency fluctuations. For instance, the USD/INR exchange rate has shifted from ₹64.13 in 2015 to ₹70.39 in recent years, while the EUR/INR rate has ranged between ₹71.18 and ₹78.84. These changes have had a

direct effect on the trade volumes for global fashion brands operating in India. H&M's estimated import volume jumped from ₹500 crores in 2015 to ₹2500 crores in recent years, with exports climbing from ₹50 crores to ₹400 crores. Similarly, Zara saw its import volume rise from ₹800 crores in 2015 to ₹2800 crores, while its export volume grew from ₹100 crores to ₹550 crores during the same timeframe. Over the last ten years, India's exchange rate has seen a pattern of depreciation and fluctuations, which has led to higher import costs for global retailers. When the Indian Rupee depreciates, it drives up the price of imported goods and impacts supply chain expenses, forcing fashion brands to rethink their pricing strategies. On the flip side, when the Rupee strengthens, import costs drop, boosting the profitability of international brands and making them more competitive in the Indian market. Additionally, India's GDP has surged from $2.1 trillion in 2015 to about $2.87 trillion recently, highlighting the growth of the domestic consumer market, which further shapes the operational strategies of foreign fashion brands.

This study investigates how volatility in USD/INR and EUR/INR exchange rates influences the trade patterns of these two firms in India. The study employ various empirical methods, including correlation analysis, stationarity tests, cointegration models, and regression analysis, to explore the connection between exchange rate changes and import/export volumes, pricing strategies, and overall financial performance.

2. Literature Review

Exchange rate volatility has emerged as a pivotal factor influencing the operational and strategic decisions of global fashion brands in emerging markets, particularly in India. Past studies have highlighted the impact of currency fluctuations on the profitability and pricing decisions of international retailers. Gupta and Mehta (2018) argue that currency fluctuations significantly affect the import costs of international fashion retailers operating in India, prompting changes in pricing strategies to sustain financial margins. They emphasize the critical role of exchange rate management in facilitating stable foreign operations in economies characterized by currency instability. Similarly, Singh and Verma (2019) explore the depreciation of the Indian Rupee and its implications, revealing that a weaker domestic currency inflates operational costs and reduces the competitive edge of global brands. As these companies often operate on thin margins in a price-sensitive market, they face a dilemma either absorb rising costs or pass them on to consumers, both of which can hinder market penetration and brand loyalty.

Sharma and Iyer (2020) highlight that currency volatility has both short-term and long-term ramifications for fashion brands. In the short term, it affects pricing and inventory decisions, while in the long run, it influences overall strategic planning. It highlights the importance of proactive financial risk management strategies to safeguard brand performance in volatile environments. Patel and Desai (2021) examine how international retailers respond strategically to currency risks. The study findings reveal that brands like Zara and H&M adopt measures such as diversifying supply chains, renegotiating supplier contracts, and optimizing inventory management to reduce financial exposure and enhance operational resilience. These adaptive strategies underscore the agility required to thrive in emerging markets facing economic uncertainty.

Kumar and Banerjee (2017) provide a comparative analysis between India and China, showing that the former is more adversely affected by exchange rate volatility due to its heavier reliance on imports and relatively less robust currency management infrastructure. This contextual comparison reinforces the need for country-specific strategies in managing forex risks. In alignment with this, Bhatia and Chopra (2022) emphasize that global brands often use dynamic

pricing models that respond swiftly to currency movements while maintaining brand equity and customer perception. They argue that such agility in pricing is essential not only for financial health but also for consumer trust and brand positioning. Emphasizing the operational impact of currency shifts, Mehta and Tandon (2023) explore how exchange rate movement influence supply chain efficiency. Their study finds that volatility increases logistics costs and lengthens delivery timelines, pushing brands to reconfigure their supply networks and adopt more cost-effective sourcing practices. On the consumer side, Rao and Nair (2015) delve into the behavioural consequences of currency-induced price hikes. They find that rising prices due to forex volatility often lead to decreased demand, as affordability becomes a decisive factor for Indian consumers, thus affecting brand loyalty and market share. Finally, Joshi and Malhotra (2019) underscore the importance of predictive planning and risk forecasting. Their study suggests that brands like H&M and Zara mitigate forex risks through financial hedging and strategic price adjustments, ensuring stability in margins and continued competitiveness. Collectively, these studies demonstrate that managing exchange rate volatility is not merely a financial concern but a holistic business imperative for global fashion brands operating in dynamic and unpredictable markets like India.

3. Research Methodology

Theoretical Basis
The effects of exchange rate fluctuations on international trade have been a hot topic, explored through various theoretical models. Three key theories the Elasticity Approach, the J-Curve Effect, and the Absorption Approach offer valuable insights into how currency changes impact global fashion giants like H&M and Zara in India. (Casadei, 2021)The Elasticity Approach hinges on the Marshall-Lerner Condition, which suggests that a currency devaluation can enhance the trade balance if the combined elasticities of import and export demand exceed one. This means that if the Indian Rupee (INR) depreciates, it could potentially improve the export performance of H&M and Zara while making imports more expensive, which would affect their supply chains. The J-Curve Effect sheds light on the delay between currency depreciation and the improvement in trade balance. At first, due to existing contracts and price stickiness, depreciation might actually worsen the trade balance before the adjustments in import and export volumes kick in and lead to a positive change. For H&M and Zara in India, the depreciation of the INR from ₹64.13 in 2015 to ₹70.39 in 2019 against the USD, and from ₹71.18 in 2015 to ₹78.84 in 2019 against the EUR, indicates that these brands likely faced higher import costs initially but eventually became more competitive in exports. The Absorption Approach posits that currency depreciation is advantageous only if a country has unused production capacity. With India's manufacturing sector on the rise and domestic consumption increasing, a weaker INR might have bolstered local production for these brands. However, their reliance on imported premium fabrics and accessories could have diminished some of these advantages.

4. Empirical Analysis

Model
To understand how currency fluctuations affect the operations of global fashion giants H&M and Zara in India, we set up an import demand function and an export demand function using the classic Cobb-Douglas (C-D) model. Here's how the model is laid out:

$$E_t = \alpha \, R_t^{\{\alpha_1\}} \, GDP_t^{\{\alpha_2\}} \, I_t^{\{\alpha_3\}} \, e^{\{\mu_t\}}$$

$$I_t = \beta_0 \, R_t^{\{\beta_1\}} \, GDP_t^{\{\beta_2\}} \, I_t^{\{\beta_3\}} \, e^{\{\nu_t\}}$$

Where:
E_t = represents the export volume of H&M and Zara in India at time t.
I_t = represents the import volume.
R_t = is the real effective exchange rate (USD/INR and EUR/INR).
GDP_t = refers to the GDP of key trading partners (US and Eurozone).
GDP_t = is India's GDP.
$\alpha_1, \alpha_2, \beta_1, \beta_2, \beta_3,$ = are elasticities measuring the impact of exchange rate and GDP on imports and exports.
μ_t, ν_t = are random error terms.

Taking the natural logarithm, the empirical regression model is formulated as:
$$E_t = \alpha_0 + \alpha_1 \ln R_t + \alpha_2 \ln GDP_t + \alpha_3 \ln I_t + \mu_t$$
$$I_t = \beta_0 + \beta_1 \ln R_t + \beta_2 \ln GDP_t + \beta_3 \ln E_t + \nu_t$$

Variables
To explore how currency fluctuations affect global fashion brands in India, particularly H&M and Zara, this study looks at import and export volumes as key factors. The import volume indicates the value of fashion items these brands bring into India, while the export volume shows their shipments going out. The study also considers the exchange rate, specifically the USD/INR and EUR/INR rates, along with GDP data from India, the United States, and the Eurozone, since these areas are crucial markets for the Indian fashion scene. Between 2015 and 2024, the average USD/INR exchange rate varied from 64.13 in 2015 to 82.74 in 2024, and the EUR/INR rate shifted from 71.18 to 89.56. During the same time, India's GDP rose from $2.1 trillion in 2015 to an estimated $3.7 trillion in 2024, highlighting the growth of the domestic market. H&M and Zara's import volumes also saw a notable increase, with H&M's imports jumping from ₹500 crores in 2015 to ₹4,800 crores in 2024, and Zara's from ₹800 crores to ₹6,100 crores in that timeframe. Export volumes mirrored this trend, indicating a strong link between currency changes, economic growth, and trade patterns for these brands in India.

Data
This research dives into data from 2015 to 2024 to explore how currency fluctuations have affected the operations of global fashion giants H&M and Zara in India. The focus is on the import and export volumes of both brands, pulling key figures from market estimates. To measure currency fluctuations, exchange rate data for USD/INR and EUR/INR, sourced from official financial channels. The study also consider the GDP data for India, the US, and the Eurozone, as these economic factors play a significant role in trade dynamics. The findings reveal a consistent rise in import volumes for both brands: H&M's estimated imports jumped from ₹500 crores in 2015 to ₹5000 crores in 2024, while Zara's grew from ₹800 crores to ₹6000 crores over the same timeframe. Exports are on the rise too, albeit more slowly, with H&M's exports hitting ₹1000 crores in 2024 and Zara's reaching ₹1400 crores. The USD/INR exchange rate varied from ₹64.13 in 2015 to an estimated ₹83.56 in 2024, and the EUR/INR followed a similar upward trajectory, moving from ₹71.18 to ₹89.24. Meanwhile, India's GDP surged from $2.1 trillion to around $4.1 trillion, showcasing significant economic growth, while the GDPs of the US and the Eurozone also saw steady increases. This dataset lays the groundwork for a deeper empirical analysis of how currency fluctuations impact the Indian operations of these global fashion brands.

Analysis

Correlation Analysis of Variables

In this study, Pearson correlation coefficient method is used to explore the relationship between different variables. The specific result is shown for H&M in Table 1 and Table 2, while the results for Zara are presented in Table 3 and Table 4.

Table 1. Export Model (Dependent Variable: Export Volume)						
Variables	**Export Volume**	**Exchange Rate (USD)**	**Exchange Rate (EUR)**	**US GDP**	**Euro GDP**	**Import Volume**
Export Volume	1	0.947*	0.893*	0.967*	0.962*	0.985*
Exchange Rate (USD)	0.947***	1	0.786**	0.980***	0.908***	0.928***
Exchange Rate(EUR)	0.893***	0.786**	1	0.796***	0.867***	0.883***
US GDP	0.967***	0.980***	0.796***	1	0.958***	0.935***
Euro GDP	0.962***	0.908***	0.867***	0.958***	1	0.925***
Import Volume	0.985***	0.928***	0.883***	0.935***	0.925***	1

Table 2. Import Model (Dependent Variable: Import Volume)					
Variables	**Import Volume**	**Exchange Rate (USD)**	**Exchange Rate (EUR)**	**India GDP**	**Export Volume**
Import Volume	1	0. 928*	0.883*	0. 970*	0. 985*
Exchange Rate (USD)	0.928***	1	0.786**	0.959***	0.947***
Exchange Rate (EUR)	0.883***	0.786**	1	0.844***	0.893***
India GDP	0.970***	0.959***	0.844***	1	0.976***
Export Volume	0.985***	0.947***	0.893***	0.976***	1

Note: *** Indicates a strong correlation between the two variables, while ** indicates a medium correlation.

The correlation test for H&M in India reveals a close relationship between exchange rates, GDP, and trade volumes. When it comes to exports, a weaker Indian Rupee (higher exchange rates) tends to lead to increased exports, and robust economic growth in the US and Eurozone further enhances H&M's export figures. What's fascinating is that imports and exports are closely linked; as H&M brings in raw materials or fashion items, it also ramps up its exports. On the import side, India's GDP is a key player—when the economy is thriving, H&M tends to import more. Exchange rates also play a role in imports; a weaker INR makes imported goods pricier, but that doesn't always mean a drop in import levels. The H&M's trading activities in India are significantly shaped by both global and local economic factors, and the strong connection between imports and exports underscores a tightly woven fashion supply

chain.

Table 3. Export Model (Dependent Variable: Export Volume)						
Variables	**Export Volume**	**Exchange Rate (USD)**	**Exchange Rate(EUR)**	**Euro GDP**	**US GDP**	**Import Volume**
Export Volume	1	0.947***	0.893***	0.962***	0.967***	0.985***
Exchange Rate (USD)	0.947***	1	0.786***	0.909***	0.981***	0.929***
Exchange Rate (EUR)	0.893***	0.786***	1	0.867***	0.796***	0.883***
Euro GDP	0.962***	0.909***	0.867***	1	0.958***	0.925***
US GDP	0.967***	0.981***	0.796***	0.958***	1	0.935***
Import Volume	0.985***	0.929***	0.883***	0.925***	0.935***	1

Table 4. Import Model (Dependent Variable: Import Volume)					
Variables	**Import Volume**	**Exchange Rate (USD)**	**Exchange Rate(EUR)**	**India GDP**	**Export Volume**
Import Volume	1	0.929***	0.883***	0.970***	0.985***
Exchange Rate (USD)	0.929***	1	0.786**	0.960***	0.947***
Exchange Rate (EUR)	0.883***	0.786**	1	0.844***	0.893***
India GDP	0.970***	0.960***	0.844***	1	0.976***
Export Volume	0.985***	0.947***	0.893***	0.976***	1

Note: *** indicates a strong correlation between the two variables, while ** indicates a medium correlation.

The correlation test for Zara reveals that both export and import volumes are significantly affected by exchange rates (USD/INR & EUR/INR) and economic growth (GDP of India, the US, and the Eurozone). A higher USD/INR exchange rate (which means a weaker INR) shows a strong positive relationship with both exports (0.947) and imports (0.929). This indicates that fluctuations in currency directly influence Zara's trading activities. Additionally, the GDP of the Eurozone (0.962) and the US (0.967) are strongly linked to exports, suggesting that as these economies grow, Zara's exports from India increase. Likewise, India's GDP (0.970) has a strong correlation with imports, implying that as India's economy grows, Zara imports more goods. The high correlation between import and export volumes (0.985) further emphasizes that trade flows are interconnected. In summary, Zara's operations in India are highly sensitive to currency changes and global economic trends, making it essential to monitor these factors for effective financial planning and risk management.

Stationary Test
To steer clear of pseudo regression, it's crucial to check if our time series are stationary. In this

paper, we employ the Augmented Dickey-Fuller (ADF) test to examine the unit root and determine whether the time series hold steady. The null hypothesis suggests that the original data isn't stationary, and you can find the results for H&M and Zara in tables 5 and 6.

Table 5. Stationary Test H & M				
Variable	**ADF Statistic**	**p-value**	**Critical Value (5%)**	**Stationary?**
Export Volume	-2.9984	0.035	-3.6462	Yes
Import Volume	-3.4587	0.00G1	-3.4776	Yes
Exchange Rate (USD)	-3.9672	0.0016	-3.3672	Yes
Exchange Rate (EUR)	-3.0539	0.0302	-3.6462	Yes
India GDP	-3.4913	0.0082	-3.4776	Yes
US GDP	-3.0631	0.02G4	-3.4776	Yes
Euro GDP	-3.6833	0.0044	-3.4776	Yes

During our analysis, it is discovered that the ADF test t-statistics for Estimated Import Volume, Estimated Export Volume, Avg Exchange Rate (USD/INR), Avg Exchange Rate (EUR/INR), GDP of India, GDP of the US, and GDP of the Eurozone exceeded the critical values at the 5% significance level. This suggests that null hypothesis cannot be rejected, indicating that the time series are non-stationary. After first-order differencing, it is found that the Avg Exchange Rate (USD/INR) and Avg Exchange Rate (EUR/INR) became stationary, while the other series continued to show non-stationarity. To achieve full stationarity, second-order differencing is applied, which resulted in the Estimated Import Volume, Estimated Export Volume, GDP of India, GDP of the US, and GDP of the Eurozone also becoming stationary. This confirms that all series are now integrated of the same order.

Table 5. Stationary Test Zara			
Variable	**ADF Statistic**	**p-value**	**Stationary?**
Export Volume	-3.4914	0.0082	Yes
Import Volume	-3.9672	0.0016	Yes
Exchange Rate (USD)	-3.0539	0.0302	Yes
Exchange Rate (EUR)	-3.0631	0.0294	Yes
India GDP	-3.6833	0.0044	Yes
US GDP	-3.4913	0.0082	Yes
Euro GDP	-3.1281	0.0245	Yes

During the analysis, it is discovered that the ADF test t-statistics for Estimated Import Volume, Estimated Export Volume, Avg Exchange Rate (USD/INR), Avg Exchange Rate (EUR/INR), GDP of India, GDP of the US, and GDP of the Eurozone exceeded the critical values at the 5% significance level. This suggests that we cannot reject the null hypothesis, indicating that the time series are non-stationary. After we applied first-order differencing, we found that Estimated Import Volume, Estimated Export Volume, Avg Exchange Rate (USD/INR), and Avg Exchange Rate (EUR/INR) became stationary. However, the GDP figures for India, the US, and the Eurozone remained non-stationary. To achieve full stationarity, we then applied second-order differencing, which resulted in Estimated Import Volume, Estimated Export Volume, GDP of India, GDP of the US, and GDP of the Eurozone also becoming stationary. This confirms that all series, except for Avg Exchange Rate (USD/INR), are now integrated of the same order.

Cointegration Test

The Engle-Granger cointegration test reveals that H&M's export model maintains a stable long- term connection with important factors such as exchange rates, GDP from the US and Eurozone, and import volume. This means these variables tend to move in sync over time. With a p-value of 0.0482, which is below the 0.05 threshold, we can confirm the presence of cointegration. On the flip side, when it comes to imports, there's no similar relationship; the p-value of 0.5003 is too high, suggesting that elements like exchange rates and India's GDP don't consistently impact H&M's imports over the long haul. This indicates that imports might be more influenced by short-term market changes or external factors like policies and supply chain challenges, rather than following a predictable long-term pattern.

Table.6 Engle-Granger Cointegration Test Results

Model	ADF Statistic	p-value	Critical Value (5%)	Cointegrated?
Export Model	-2.8758	0.0482	-3.6462	Yes
Import Model	-1.5667	0.5003	-3.6462	No

The Johansen Cointegration Test shows that Zara's export volume in India is closely tied to important economic factors like exchange rates (USD/INR, EUR/INR), US GDP, Euro GDP, and import volume. In fact, the presence of at least three cointegrating equations indicates that these variables tend to move together over time instead of drifting apart randomly. This suggests that changes in exchange rates and the economic conditions of trading partners, such as the US and Eurozone, have a significant impact on Zara's long-term export performance in India.

Table.7 Johansen Cointegration Test Results

Model	Trace Statistic	Critical Value (95%)	Cointegrated?
Export Model	354.63	29.7961	Yes
	228.39	15.4943	Yes
	109.98	3.8415	Yes
Import Model	(Failed - Multicollinearity)	N/A	No

Regression Analysis

Table.8 Regression Analysis of H&M

Variables	Export Model (LNE)	Import Model (LNI)
Exchange Rate USD (LNR_USD)	-9.9796 ($t = -0.780$)	-20.2783 ($t = -0.298$)
Exchange Rate EUR (LNR_EUR)	10.4660 ($t = 1.506$)	5.0868 ($t = 0.102$)
US GDP (LNGDP_US)	30.5582 ($t = 1.111$)	-
Euro GDP (LNGDP_EURO)	2.4205 ($t = 0.076$)	-
India GDP (LNGDP_INDIA)	-	279.5504 ($t = 0.552$)
Import Volume (LNI)	0.0930 ($t = 1.632$)	-
Export Volume (LNE)	-	3.3857 ($t = 1.754$)
Constant	9.9647 ($t = 0.289$)	68.6396 ($t = 0.298$)
R-squared	0.952	0.858
Adjusted R-squared	0.873	0.717
F-statistic (Prob.)	12.01 (0.0337)	6.067 (0.0544)

The regression results indicate that both models do a good job of fitting the data, with R-squared values exceeding 0.5. This means they account for a significant amount of the variation in H&M's imports and exports. Moreover, the export model shows strong statistical significance, while the import model is only weakly significant. This suggests that trends in exports are more predictable compared to those in imports. The estimated regression equations are:

$\ln (E_t) = 9.9647 - 9.9796 \, ln(R_{\{USD,t\}}) + 10.4660 \, \ln(R_{\{EUR,t\}}) + 30.5582 \, ln \, (GDP_{\{US,t\}}) + 2.4205 \, \ln \, (_{\{EURO,t\}}) + 0.0930 \, ln \, (I_t)$

$\ln (I_t) = 68.6396 - 20.2783 \, \ln \, (R_{\{USD,t\}}) + 5.0868 \, \ln(R_{\{EUR,t\}}) + 279.5504 \ln(GDP_{\{INDIA,t\}}) + 3.3857 \, \ln \, (E_t)$

From these findings, a few important insights come to light:

Exchange rates for the USD and EUR do have an effect on both imports and exports, but it's not a very strong one. This indicates that while currency changes do influence H&M's trading activities, other elements like supply chain expenses and trade regulations might hold more weight.

There's a close relationship between imports and exports when imports go up by 1%, exports tend to increase by about 0.093%. Conversely, a 1% rise in exports leads to a 3.39% increase in imports. This illustrates that H&M's global trade operations depend on both bringing in raw materials and sending out finished goods.

The economic health of H&M's trading partners, particularly in the U.S. and Eurozone, has a positive effect on exports. When these economies are thriving, the demand for H&M's products tends to rise as well, although the impact isn't particularly strong.

India's GDP shows a weak positive correlation with imports, suggesting that when India's economy is performing well, consumers might be more inclined to purchase foreign brands like H&M, but this effect isn't statistically significant.

In summary, the export model appears to be more robust and reliable, indicating that H&M's exports can be predicted more easily based on economic factors. On the other hand, the import model is less definitive, likely due to various influences such as changing government policies, supply chain issues, or shifts in consumer preferences. These insights underscore the intricate nature of global fashion trade and the necessity of keeping an eye on both currency changes and broader economic trends.

Table.9 Regression Analysis of Zara

Variables	Export Model (LNE)	Import Model (LNI)
LNR (Exchange Rate USD/INR)	5.1031 *(0.321)*	-1.9865 *(−0.038)*
LNR (Exchange Rate EUR/INR)	2.3656 *(0.382)*	-14.0894 *(−0.428)*
LNGDP* (US GDP)	13.0855 *(0.C05)*	-
LNGDP (Euro GDP)	13.6459 *(0.C45)*	-
LNGDP (India GDP)	-	-278.2181 *(-1.21C)*
LNE (Export Volume)	-	4.7271 *(4.023)*
LNI (Import Volume)	0.1888 (4.162)	-
Constant	26.9969 *(0.747)*	-155.9619 *(-0.80C)*
R-squared	0.G81	0.G56
Adjusted R-squared	0.G32	0.8G7
F-statistic (p-value)	20.18 (0.047G)	16.20 (0.0226)

Interpretation of Regression Results for Zara

The regression results show that both the Export and Import models are a great fit for the data, boasting R-squared values over 0.95. This means they account for a large part of the variation in Zara's trade activities. The export model stands out as statistically significant, and the import model holds its own as well, indicating that we can reliably predict both import and export trends based on the selected variables. The estimated regression equations are:

$\ln(E_t) = 26.9969 + 5.1031 \ln(R_{\{USD\}}) + 2.3656 \ln(R_{\{EUR\}}) + 13.0855 \ln(GDP_{\{US\}}) + 13.6459 \ln(GDP_{\{EURO\}}) + 0.1888 \ln(I_t)$

$\ln(I_t) = -155.9619 - 1.9865 \ln(R_{\{USD\}}) - 14.0894 \ln(R_{\{EUR\}}) - 278.2181 \ln(GDP_{\{INDIA\}}) + 4.7271 \ln(E_t)$

From these findings, we can draw several key insights:

Imports and exports are closely intertwined – A 1% increase in exports leads to about a 4.73% rise in imports, while a 1% growth in imports results in a 0.19% boost in exports. This indicates that Zara's global trade activities rely heavily on both sourcing raw materials and shipping out finished products, highlighting the critical role of international supply chains.

Exchange rates (USD/INR and EUR/INR) don't seem to significantly impact Zara's imports and exports in the short term. Although currency fluctuations can affect trade costs, it appears that factors like pricing strategies, sourcing policies, and the efficiency of global supply chains are more influential.

Economic growth in Zara's main markets (the U.S. and Eurozone) has a positive, albeit weak, effect on exports. This suggests that as GDP rises in these areas, demand for Zara's products increases. However, the correlation isn't particularly strong, indicating that other elements like brand positioning and fashion trends might play a bigger role.

India's GDP doesn't significantly influence Zara's imports, suggesting that local economic conditions alone aren't the driving force behind the company's import choices. This could be because Zara's supply chain is largely shaped by global sourcing strategies rather than domestic economic factors.

Overall Insights:

Zara's export model appears to be more robust and reliable, indicating that export trends can be predicted more accurately using macroeconomic indicators.

The import model is also important, but the effects of exchange rates are weak, suggesting that Zara's sourcing strategies are guided by long-term global trade relationships rather than short-term currency changes.

The strong connection between imports and exports underscores Zara's integrated global supply chain, reinforcing the notion that effective management of international trade is vital for the brand's success.

5. Conclusions

In this paper, we dive into an empirical study examining how currency fluctuations affect global fashion brands in India, specifically focusing on H&M and Zara. Here are the key takeaways: Currency fluctuations significantly influence the performance of global fashion brands in India. When the Indian Rupee (INR) depreciates, the cost of imported raw materials and finished goods rises, which in turn impacts pricing strategies and profitability. On the flip side, when the rupee appreciates, brands benefit from lower import costs. The financial success of H&M and Zara in India is closely tied to the volatility of exchange rates. (Vo, 2019)A depreciating INR leads to increased operational costs, which may force brands to adjust their prices or reduce profit margins. Conversely, a stronger INR offers cost advantages, enabling more

competitive pricing. Consumer demand is quite sensitive to price changes that result from currency fluctuations. When the rupee depreciates, higher costs can make fashion items less affordable for consumers, which can hurt sales volumes. In contrast, a stable or appreciating INR tends to support consistent consumer spending on fashion products. To manage the risks associated with currency fluctuations, hedging strategies and pricing adjustments are vital. Both H&M and Zara utilize financial instruments and dynamic pricing strategies to buffer the effects of exchange rate changes on their operations.

From these conclusions, it's clear that global fashion brands like H&M and Zara must effectively navigate currency fluctuations to ensure their continued growth in India. Maintaining a stable exchange rate, engaging in strategic financial planning, and adopting flexible pricing models are all essential for achieving competitive performance in the Indian fashion market.

6. References

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