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IMPACT OF CSR ON PROFITABILITY IN FMCG SECTOR: A COMPARATIVE STUDY BETWEEN INDIA AND THE USA

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ABSTRACT

This research examines the impact of Corporate Social Responsibility (CSR) on the profitability of companies in the Fast-Moving Consumer Goods (FMCG) sector, focusing on a comparative analysis between India, a developing economy, and the United States, a developed one. CSR has evolved into a key strategic and ethical consideration for businesses across the globe. However, the extent to which CSR spending influences financial performance may vary depending on economic, regulatory, and cultural contexts. This study uses secondary data collected from the annual report of 10 leading FMCG companies - 5 from India and 5 from the USA. Profitability is measured through Net Profit, Return on Equity(ROE), and Return on Assets (ROA), while CSR spending is considered an independent variable. Correlation analysis and Ordinary Least Squares (OLS) are applied to assess the strength and direction of the relationship between CSR and profitability.

The findings reveal a strong and statistically significant positive correlation between CSR spending and Net Profit in Indian companies, suggesting that CSR activities may enhance financial performance in developing markets. This could be attributed to factors such as stricter CSR compliance requirements, increasing consumer awareness, and the strategic use of CSR for brand differentiation. Conversely, the results from the USA show a weak and statistically insignificant relationship, indicating that in mature markets, CSR may function more as a compliance or reputation management tool, with less direct financial impact. Overall, the study concludes that CSR can serve as a valuable driver of profitability in emerging economies where social investment is closely tied to corporate identity and market presence. In contrast, its financial benefits may be less pronounced in developed economies where CSR practices are more institutionalized. These insights can guide companies and policymakers in aligning CSR initiatives with business goals more effectively across different economic settings.

KEYWORDS: *Corporate Social Responsibility(CSR), Profitability, FMCG Sector, Net Profit, India, USA*

INTRODUCTION

In today's global business environment, companies are expected to do more than just generate profits. Stakeholders—including consumers, investors, regulators, and communities—now place significant value on how a business impacts society and the environment (Carroll & Shabana, 2010; Matten & Moon, 2008). Corporate Social Responsibility (CSR) has therefore transitioned from being a voluntary philanthropic activity to a strategic imperative that contributes to long-term business sustainability (Porter & Kramer, 2006). Especially in sectors like Fast-Moving Consumer Goods (FMCG), where consumer perception and brand loyalty play vital roles, CSR initiatives can directly or indirectly influence profitability (Singh, 2016).

The FMCG sector is one of the most dynamic and competitive industries worldwide. Companies operating in this sector face constant pressure to differentiate their brands, meet evolving consumer expectations, and maintain profitability amidst economic and social changes (Bansal & Roth, 2000). As such, CSR activities—ranging from environmental sustainability projects and ethical labor practices to community development programs—have become a key component of corporate identity and performance strategy (Porter & Kramer, 2006).

India and the USA represent two distinct economic landscapes: one a rapidly growing developing country with evolving CSR mandates, and the other a mature, developed economy where CSR has long been embedded into corporate practices (Matten & Moon, 2008). India's regulatory framework, specifically Section 135 of the Companies Act, 2013, mandates a certain level of CSR spending for eligible companies, thus formalizing its role in business operations (Ministry of Corporate Affairs, 2013). In contrast, CSR in the USA is generally guided by market expectations, stakeholder activism, and institutionalized corporate governance practices (Matten & Moon, 2008).

This study seeks to examine whether CSR activities translate into improved profitability for FMCG companies, and if so, whether this relationship varies between developing and developed economies. By comparing data from top FMCG companies in India and the USA, this research provides a comparative analysis of the impact of CSR on key financial metrics such as Net Profit, Return on Equity (ROE), and Return on Assets (ROA) (Becher, 2022). The motivation for this research stems from the need to understand whether socially responsible practices are financially viable and how this viability differs across regions. While CSR is often championed as beneficial for society, its direct impact on a company's bottom line remains a topic of debate (Margolis & Walsh, 2003).

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By focusing on empirical data and using robust statistical tools, this study aims to bring clarity to this debate and provide actionable insights for corporate decision-makers, investors, and policymakers.

The importance of this research lies not only in its contribution to academic literature but also in its practical implications. Companies can use these findings to align their CSR strategies with financial goals, particularly in developing markets where such alignment might offer competitive advantages (Porter & Kramer, 2006). This research aims to bridge the gap between CSR theory and business performance realities, offering a nuanced perspective on how and why CSR impacts profitability differently in India and the USA.

REVIEW OF LITERATURE

Once upon a time, in the world of business, a modest but powerful movement was taking shape: the birth of Corporate Social Responsibility. Creyer laid the groundwork in 1997 by demonstrating that consumers were willing to pay a premium for corporations that acted responsibly. This basic idea—that doing good may also be good business—started to pique people's interest across industries. By the turn of the millennium, Bansal and Roth (2000) had bolstered their case by demonstrating how CSR efforts helped businesses lessen their environmental effect. Around the same time, McWilliams and Siegel (2001) proposed a new idea: CSR was more than just charity; it was a competitive strategy. Companies could attract ethically minded clients and create a niche for themselves in crowded markets. Maignan (2001) also stated that consumers preferred responsible businesses, highlighting the growing importance of corporate conscience. Griffin highlighted another component in 2002: CSR did more than merely improve a company's reputation; it also fuelled strong customer devotion, a bond that could withstand competing temptations. Fast forward to 2005, when Mohr and Webb showed that CSR can foster emotional ties. Customers bought more than simply a product; they invested in a story, a mission, and a purpose. Brands become more like buddies than commodities.

In 2006, Yoon et al. discovered that consumers exploited CSR initiatives to shape their self-image. Supporting ethical products becomes a means of self-expression. The wave continued to build. Bhattacharya et al. (2008) demonstrated that CSR affected not just customers but also staff, aligning company principles with personal convictions and instilling pride and commitment from within. In 2009, Ramasamy and Yeung discovered that increased knowledge of CSR programs directly increased brand loyalty, demonstrating that CSR is more than just a nice deed; it is also a smart business. Then, in 2010, Carroll and Shabana brought it all together, demonstrating how CSR improved company image and consumer trust. Lee also stated that the future – Generation Z and millennials — would prefer brands that lived ethically rather than just spoke ethically.

Meanwhile, across the ocean in the Philippines (2013), Velasco discovered that CSR did not necessarily result in hard financial results but had huge internal benefits like as happy staff and loyal consumers. The mid-2010s experienced a surge in thought. Marklund and Östergren (2015) found that CSR can improve consumer satisfaction and minimize brand switching. Singh (2016) created vivid depictions of Indian FMCG behemoths such as HUL and ITC, which went beyond charity to integrate CSR into the very fabric of their marketing strategies.

Pallavi and Kaushal demonstrated in 2016 how CSR can build deep consumer trust. However, Ravichandran and Chandilyan identified a challenge: while customers preferred CSR-aligned items, many were unaware that corporations were making such efforts. Improved communication was urgently needed. Around 2018, an unusual pattern arose. Studies by Mittal and Babu and Shetty and Chaudhuri revealed mixed results: CSR investment does not necessarily result in improved financial performance, at least not immediately. Nonetheless, firms continued to invest, believing in the long-term magic. As the world became increasingly complex, the discussion around ESG (Environmental, Social, and Governance) grabbed center stage. Ting et al. (2019) discovered that in emerging markets, ESG aspects can significantly increase firm valuations.

In the roaring 2020s, Anuj Bolia (2020) discovered an intriguing truth: CSR was more than simply donations; it was about altering brand attitudes and reaching minds and hearts via genuine interaction.

By 2022, experts such as Niyas and Kavita had proved that brand value — the invisible treasure trove accumulated over time — was inextricably linked to financial success. Becher (2022), looking at international FMCG corporations, emphasized that CSR and ESG policies were no longer optional; they were knit into the fabric of strong, resilient businesses. In 2024, there was an influx of new insights. Researchers such as Betia et al. and Adhikari and Sapkota have shown that the impact of CSR varied by region and industry, but one thing was clear: in an age of informed consumers, CSR fostered trust, loyalty, and long-term profitability. According to studies from Nepal (Adhikari and Sapkota), Sri Lanka (Devindi and Weerasekera), and India (Menaga, Lokesh, and Vasantha), customers worldwide are rewarding organizations that care. Meanwhile, researchers in Nigeria and Indonesia, including Adeniyi et al. (2025) and Susandya and Sunarwijaya (2025), discovered that government regulations, taxation, and cultural views influenced how corporations implemented CSR. Heavy taxes sometimes stifled CSR budgets, but smart incentives fuelled them.

Finally, the evolution of corporate social responsibility was not a straight line. It was a journey spanning continents, industries, and values. It educated the globe that doing well was beneficial not only for society but also for business. However, it emphasized that CSR must be genuine, strategic, and closely aligned with both organizational values and stakeholder expectations. Thus, the CSR narrative continues to unfold, demonstrating that corporations, like individuals, are evaluated not only by their achievements but also by the positive impact they leave behind.

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RESEARCH GAP

While various studies have investigated the impact of Corporate Social Responsibility (CSR) on corporate performance, the majority have focused either on developed or developing economies. There is no comparative study on how CSR spending effects financial outcomes in opposing regulatory settings such as India (with required CSR compliance) and the United States (where CSR is optional and market-driven). Furthermore, many previous studies have evaluated CSR's impact using broad industry statistics, with little emphasis paid to sector-specific insights, notably in the very consumer-sensitive FMCG sector.

OBJECTIVE OF THE STUDY

1. Evaluate the relationship between CSR spending and profitability in the FMCG sector.
2. Determine whether a significant link exists between CSR initiatives and financial performance (Net Profit, ROE, ROA).
3. Explore the comparative impact of CSR in India and the USA.
4. Understand how national regulatory environments influence the CSR-profitability relationship.

HYPOTHESIS OF THE STUDY

India Hypotheses

1. Profit Margin (%)
H_0 (Null Hypothesis): CSR spending has no significant effect on profit margin.
H_1 (Alternative Hypothesis): CSR spending has a significant positive effect on profit margin.

2. ROE (%)
H_0: CSR spending has no significant effect on ROE.
H_1: CSR spending has a significant effect on ROE.

3. ROA (%)
H_0: CSR spending has no significant effect on ROA.
H_1: CSR spending has a significant effect on ROA.

USA Hypotheses:

1. Profit Margin (%)
H_0 (Null Hypothesis): CSR spending has no significant effect on profit margin.
H_1 (Alternative Hypothesis): CSR spending has a significant effect on profit margin.

2. ROE (%)
H_0: CSR spending has no significant effect on ROE.
H_1: CSR spending has a significant effect on ROE.

3. ROA (%)
H_0: CSR spending has no significant effect on ROA.
H_1: CSR spending has a significant negative effect on ROA.

RESEARCH METHODOLOGY

This research aims to explore the impact of Corporate Social Responsibility (CSR) on the profitability of companies in the Fast-Moving Consumer Goods (FMCG) sector, comparing firms in India (a developing economy) and the USA (a developed economy). This is a comparative quantitative study employing secondary data analysis to evaluate the impact of CSR on profitability in the FMCG sector.

Sample

The sample consists of 5 leading FMCG firms from India and 5 from the USA, selected based on market capitalization and data availability.

Data Sources: Annual reports, CSR disclosures, Financial statements, and Company sustainability reports

Period Covered: 2019-2024(5 years)

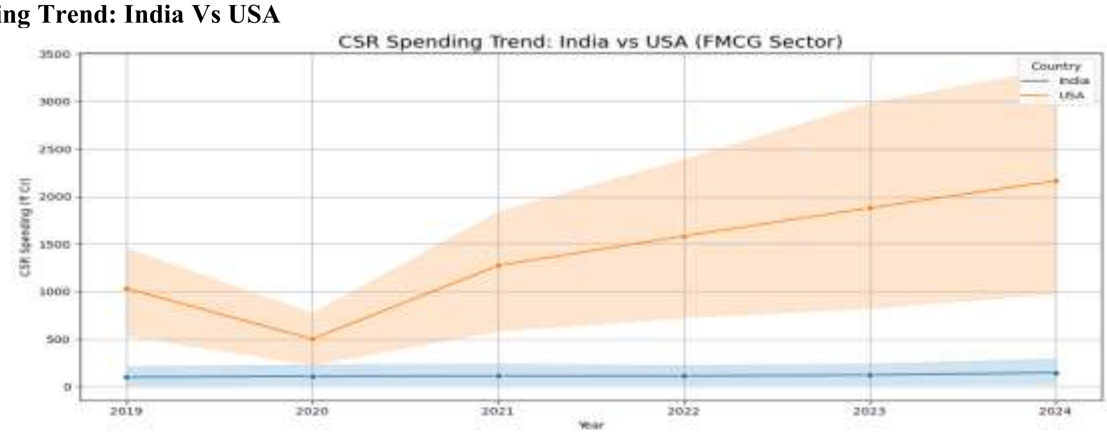
Variables Considered

Independent: CSR Spending (in ₹ Cr)
Dependent Variables: Net Profit (₹ Cr), ROE (%), ROA (%)

Statistical Tools Used: Pearson Correlation Matrix, Ordinary Least Squares (OLS) Regression
The data was analyzed using Python and Excel.

DATA ANALYSIS AND INTERPRETATION

CSR Spending Trend: India Vs USA



Inference

The line graph depicts the trend in Corporate Social Responsibility (CSR) spending among FMCG firms in India and the United States from 2019 to 2024. It shows a huge increase in CSR spending by Indian firms, notably following a drop in 2020, most likely due to the COVID-19 pandemic. From 2021 onwards, India displays a dramatic and steady increasing trend, reflecting increased business engagement and

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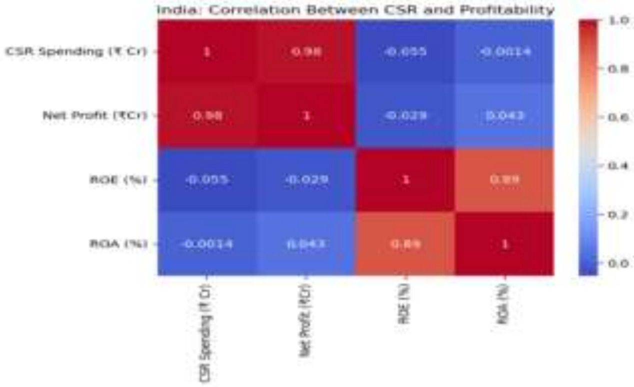
regulatory impact under the Companies Act of 2013, which mandates CSR spending. The shaded region around India's trend line also reveals greater variability, implying that CSR spending levels vary greatly among Indian FMCG manufacturers.In comparison, CSR spending in the United States has been relatively low and constant during the time, with a flat trend line and a small confidence interval, indicating persistent but modest contributions. This pattern illustrates the voluntary nature of CSR in the United States, where businesses are not legally required to dedicate a set portion of their revenues to CSR. The overall comparison emphasizes the impact of governance structures and regulatory frameworks on CSR behavior across countries.

Correlation Analysis of CSR Spending and Financial performance indicators

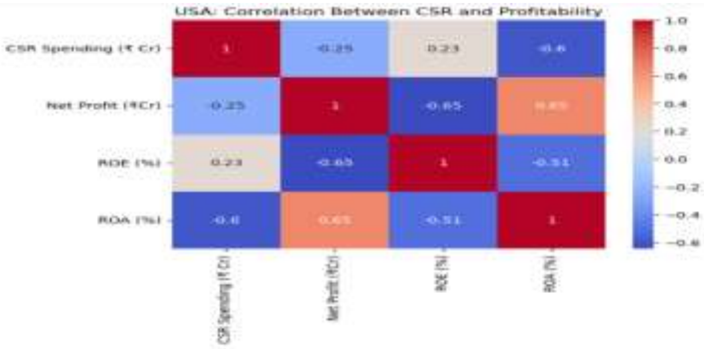
India:

Variables	**CSR Spending**	**Net Profit**	**ROE**	**ROA**
CSR Spending	1.000	0.984	-0.055	-0.001
Net Profit	0.984	1.000	-0.029	0.042
ROE	-0.055	-0.029	1.000	0.888
ROA	-0.001	0.042	0.888	1.000



USA:

Variables	**CSR Spending**	**Net Profit**	**ROE**	**ROA**
CSR Spending	1.000	-0.250	0.225	-0.603
Net Profit	-0.250	1.000	-0.646	0.654
ROE	0.225	-0.646	1.000	-0.512
ROA	-0.603	0.654	-0.512	1.000



India shows a strong positive correlation between CSR and Net Profit (0.984), whereas in the USA, this relationship is weak and negative (-0.250), indicating differing dynamics between the two economies. In India, CSR spending exhibits a very strong positive correlation (0.984) with Net Profit, suggesting that increased CSR investments are associated with improved financial performance. This may be due to stronger consumer trust, enhanced brand image, and improved regulatory goodwill in emerging markets. Interestingly, CSR spending shows negligible correlation with ROE and ROA, indicating that the benefits of CSR may not directly impact asset or equity efficiency but could influence overall profitability through intangible gains such as customer loyalty or market share.

In contrast, in the USA, CSR spending has a negative correlation with Net Profit (-0.250) and ROA (-0.603), indicating that higher CSR expenditures might coincide with lower profitability or inefficiency in resource utilization. However, the weak positive correlation with ROE (0.225) may suggest that in certain contexts, equity-driven returns can benefit marginally from CSR, though not significantly. This discrepancy could stem from the already matured CSR frameworks in the U.S., where consumers and investors expect companies to engage in CSR as a baseline, rather than as a value-adding differentiator.

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Regression Analysis of the impact of CSR Spending on Net Profit

India:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:         Net Profit (₹Cr)   R-squared:                       0.964
Model:                              OLS   Adj. R-squared:                  0.962
Method:                   Least Squares   F-statistic:                     716.4
Date:                  Sun, 06 Apr 2025   Prob (F-statistic):           5.65e-21
Time:                          08:57:57   Log-Likelihood:                -242.29
No. Observations:                    29   AIC:                             488.6
Df Residuals:                        27   BIC:                             491.3
Df Model:                             1
Covariance Type:              nonrobust
=====================================================================================
                        coef    std err          t      P>|t|      [0.025      0.975]
-------------------------------------------------------------------------------------
const                26.4168    272.989      0.097      0.924    -533.711     586.545
CSR Spending (₹ Cr)  46.1792      1.725     26.765      0.000      42.639      49.719
==============================================================================
Omnibus:                       19.004   Durbin-Watson:                   1.742
Prob(Omnibus):                  0.000   Jarque-Bera (JB):               41.586
Skew:                           1.186   Prob(JB):                     9.33e-10
Kurtosis:                       8.365   Cond. No.                         218.
==============================================================================
```

- ➢ $R^2 = 0.964$
- ➢ Coefficient of CSR Spending = 46.18 ($p < 0.001$)

CSR spending significantly explains 96.4% of the variation in Net Profit.

USA:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:         Net Profit (₹Cr)   R-squared:                       0.063
Model:                              OLS   Adj. R-squared:                  0.029
Method:                   Least Squares   F-statistic:                     1.872
Date:                  Sun, 06 Apr 2025   Prob (F-statistic):              0.182
Time:                          09:30:49   Log-Likelihood:                -285.05
No. Observations:                    30   AIC:                             574.1
Df Residuals:                        28   BIC:                             576.9
Df Model:                             1
Covariance Type:              nonrobust
=======================================================================================
                         coef    std err          t      P>|t|      [0.025      0.975]
---------------------------------------------------------------------------------------
const               1.299e+04   1033.184     12.577      0.000    1.09e+04    1.51e+04
CSR Spending (₹ Cr)   -0.8099      0.592     -1.368      0.182      -2.022       0.403
==============================================================================
Omnibus:                        0.376   Durbin-Watson:                   0.679
Prob(Omnibus):                  0.828   Jarque-Bera (JB):                0.313
Skew:                           0.224   Prob(JB):                        0.855
Kurtosis:                       2.779   Cond. No.                     2.95e+03
==============================================================================
```

- ➢ $R^2 = 0.063$
- ➢ Coefficient of CSR Spending = -0.81 ($p = 0.182$)

There is no significant relationship between CSR and Net Profit.

India

The regression model shows an R-squared value of 0.964, which implies that 96.4% of the variation in Net Profit can be explained by CSR spending alone—a remarkably strong explanatory power. The coefficient of 46.1792 signifies that for every unit increase in CSR spending, Net Profit increases significantly. The p-value (0.000) confirms that the relationship is statistically significant, validating the hypothesis that CSR positively impacts profitability in India. This could be attributed to the dual benefit of regulatory compliance (mandatory CSR) and improved stakeholder engagement, especially in a developing market context where such activities are more visible and impactful.

USA

The regression model for the USA shows a very low R-squared value of 0.063, meaning that CSR spending explains only 6.3% of the variation in Net Profit, suggesting minimal predictive power. The negative coefficient (-0.8099) and a non-significant p-value (0.182) indicate no reliable or meaningful relationship between CSR expenditure and profitability in this context. This could reflect that CSR in the U.S. is more of a reputational investment or ethical obligation than a profitability driver, possibly due to market saturation, higher operational costs, or the intangible, long-term nature of CSR returns in developed economies.

The analysis highlights the contextual difference in the financial impact of CSR. In India, companies that invest in CSR tend to benefit from enhanced brand loyalty, regulatory advantages, and stakeholder goodwill. In contrast, the American FMCG market may have already internalized CSR into brand expectations, making its direct financial impact less evident. Moreover, India's mandatory CSR regulation (Section 135 of the Companies Act, 2013) creates a structured and strategic approach to CSR. In the USA, the voluntary nature of CSR results in varied implementation, which may not always translate into profitability.

India

Metric	R^2	Coefficient (CSR%)	p-value (CSR%)	Interpretation
Profit Margin	0.406	**28.96**	**0**	**Significant positive relationship** — higher CSR leads to higher profit margins.
ROE	0.105	–42.58	0.081	Weak, negative relationship. Not statistically significant ($p > 0.05$).
ROA	0.052	–11.87	0.225	No significant relationship.

USA

Metric	R^2	Coefficient (CSR%)	p-value (CSR%)	Interpretation
Profit Margin	0.005	0.25	**0**	No correlation between CSR and profit margin.
ROE	A slight	2.49	0.081	A slight positive trend, but **not significant**.
ROA	0.463	**-16.74**	0.225	**Significant negative relationship** -higher CSR spending is linked to **lower ROA**.

India: CSR spending shows a significant positive impact on Profit Margin, but not on ROE or ROA.
USA: Only ROA shows a significant (and negative) relationship — more CSR is associated with lower ROA.

Residual Analysis

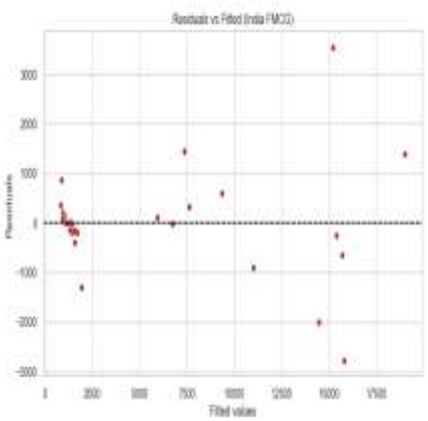
In this research, which investigates the relationship between Corporate Social Responsibility (CSR) spending and profitability in the FMCG sector across India and the USA, residual analysis plays a crucial role in validating the regression models. Since the study aims to draw meaningful comparisons between two different economies, it is vital to ensure that the basic assumptions of linear regression — linearity, homoscedasticity, normality, and absence of outliers — are satisfied.

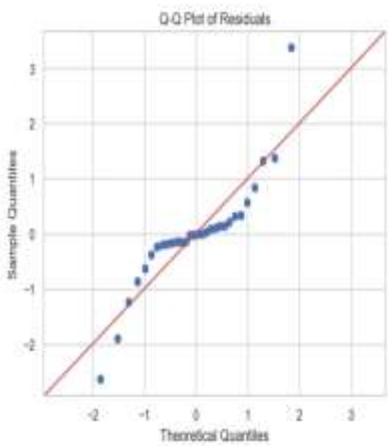
Residual analysis helps determine whether the relationship between CSR spending and Net Profit is truly linear or if more complex patterns exist, such as diminishing returns or threshold effects. Detecting heteroscedasticity through residual plots is critical because inconsistent variability in errors could suggest that CSR spending impacts large and small firms differently. Identifying outliers through residuals is equally important, as firm-specific strategies, external shocks, or reporting differences could heavily influence profitability and distort the overall results.

Moreover, the normality of residuals is essential for reliable hypothesis testing and statistical inference. Non-normal residuals may weaken the validity of conclusions about whether CSR investments meaningfully affect profitability. In cross-country comparisons, residual analysis also ensures that model inconsistencies in one country (such as India) do not bias interpretations against the other (such as the USA).

Ultimately, residual analysis strengthens the credibility, accuracy, and robustness of the findings, allowing for a fair and meaningful comparison of how CSR spending influences financial outcomes across different economic and regulatory contexts.

India





The analysis conducted on the India FMCG sector, examining the relationship between CSR Spending and Net Profit through ordinary least squares (OLS) regression, reveals potential complexities beyond a simple linear association. The residual plots generated from this analysis offer key insights into the model's fit and the underlying assumptions.

The scatter plot of residuals against fitted values suggests a possible deviation from linearity. The distribution of residuals does not appear uniformly scattered around the zero horizontal line. Notably, at lower fitted values, residuals tend to be negative, while the spread widens at higher fitted values,

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indicating potential heteroscedasticity – a non-constant variance of errors across the range of predicted net profit. Furthermore, the presence of several data points with substantial positive and negative residuals at higher fitted values warrants investigation as potential outliers that the linear model struggles to explain.

The Q-Q plot of the residuals further indicates a departure from the assumption of normality. The observed quantiles of the residuals deviate from the straight line representing a normal distribution, particularly at the tails. This suggests that the error terms in the model are not normally distributed, which could affect the reliability of standard statistical inferences drawn from the regression analysis.

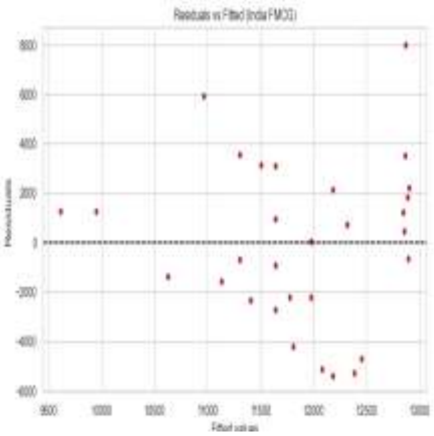
Considering the research topic of comparing the impact of CSR on profitability in the FMCG sector between India and the USA, these findings for the Indian context have significant implications. The potential non-linearity suggests that the relationship between CSR spending and net profit in India's FMCG sector might be more nuanced than a direct proportional increase. Factors such as diminishing returns or the presence of mediating variables could be at play.
The observed heteroscedasticity implies that the impact of CSR spending on net profit may not be consistent across all companies within the Indian FMCG sector. The strength or variability of this relationship could differ based on factors such as company size, CSR strategy, or other unmeasured variables.

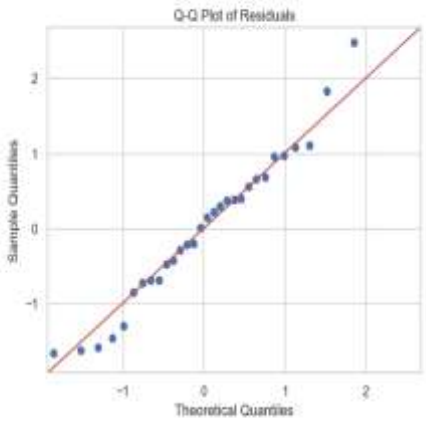
The identified outliers highlight the possibility of firm-specific factors or external events significantly influencing the profitability of certain Indian FMCG companies, making their relationship with CSR spending deviate substantially from the general trend captured by the linear model.

Finally, the non-normality of residuals suggests that statistical inferences based on the standard assumptions of linear regression for the Indian data should be approached with caution.

To effectively compare these findings with the USA, a similar analysis of the USA FMCG sector is a necessary next step. Comparing the patterns observed in the residual plots for both countries will be crucial in identifying similarities and differences in how CSR spending relates to profitability in these two distinct contexts. Subsequent research should delve into the underlying regulatory, cultural, and economic factors that might explain any observed variations in the nature and consistency of this relationship. More advanced statistical techniques might also be warranted to address the identified violations of linear regression assumptions in both country-specific analyses.

USA





The residual analysis conducted on the USA FMCG sector data, examining the relationship between CSR Spending (₹ Cr) and Net Profit (₹Cr) through linear regression, reveals several important characteristics regarding the model's fit and underlying assumptions. Similar to the findings for the India FMCG sector, the scatter plot of residuals against fitted values for the USA data suggests a potential departure from a strictly linear relationship, with indications of a curved pattern and a non-uniform spread of residuals, particularly at the lower and higher ends of the predicted net profit range. This heteroscedasticity implies that the variability in the impact of CSR spending on profitability is not consistent across USA FMCG companies. Furthermore, the presence of notable outliers with substantial positive and negative residuals suggests that firm-specific factors beyond CSR spending exert a significant influence on the profitability of certain companies. The Q-Q plot of the residuals for the USA data further indicates a violation of the normality assumption, with deviations observed in both the upper and lower tails, suggesting that the error terms are not normally distributed.

Comparing these findings with the previously analyzed Indian FMCG sector reveals some parallels. Both countries exhibit potential non-linearity in the CSR-profitability relationship, suggesting that a simple linear model may not fully capture the underlying dynamics. Heteroscedasticity is also evident in both datasets, indicating a varying consistency in the impact of CSR spending across companies within each country. Additionally, both analyses identified the presence of outliers and deviations from the normality assumption of the residuals. These similarities suggest that the relationship between CSR spending and profitability in the FMCG sector, in both India and the USA, is likely complex and influenced by factors beyond a simple linear association. However, the specific patterns of non-linearity, heteroscedasticity, and deviations from normality might differ between the two countries, warranting further

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investigation into the underlying economic, regulatory, and cultural contexts that shape these relationships. The presence of these assumption violations in both datasets underscores the need for caution when drawing statistical inferences from simple linear regression models and suggests the potential utility of exploring more advanced modeling techniques or addressing these violations through appropriate statistical methods for a more robust comparative analysis.

Comparative Analysis: India vs. USA

Aspect	India(Developing Economy)	USA (Developed Economy)
CSR Regulation	Mandatory CSR under Section 135 of the Companies Act, 2013	Voluntary CSR practices without a fixed regulatory framework
CSR Spending & Net Profit Correlation	Strong positive correlation (r = 0.984)	Weak negative correlation (r = -0.250)
OLS Regression Coefficient	46.1792 (positive impact)	-0.8099 (negative impact)
Statistical Significance	Highly significant (p = 0.000)	Not statistically significant (p = 0.182)
Interpretation	CSR is a strategic tool that enhances brand image, compliance, and profitability	CSR is seen more as a reputational or ethical responsibility than a financial driver
Market Maturity	Evolving CSR landscape with visible returns	Mature CSR environment where benefits are indirect or long-term
Consumer Perception	CSR builds trust and loyalty among socially conscious consumers	Consumers expect CSR as a baseline, not a differentiator

FINDINGS OF THE STUDY

- Strong Positive Relationship in India: The study finds a strong and statistically significant positive relationship between CSR spending and Net Profit in Indian FMCG companies. With a high Pearson correlation of 0.984 and a regression coefficient of 46.1792, CSR appears to significantly enhance profitability in the Indian context.
- Insignificant or Negative Impact in the USA: In contrast, the relationship between CSR spending and profitability in American FMCG firms is weak and statistically insignificant, with a negative correlation of -0.250 and a regression coefficient of -0.8099. This suggests that CSR may not contribute directly to short-term profitability in the U.S. market.
- Contextual Variance in CSR Impact: The contrasting results between India and the USA highlight the context-dependent nature of CSR's financial outcomes. Factors such as regulatory frameworks, consumer expectations, and market maturity play a crucial role in shaping the effectiveness of CSR investments.
- Role of Mandatory CSR in India: India's Companies Act, 2013 (Section 135) mandates CSR spending for eligible companies, which may have contributed to more strategic and impactful CSR activities that positively affect profitability.
- Voluntary CSR in the USA: The voluntary nature of CSR in the U.S. results in varied commitment levels, potentially diluting the financial impact and making CSR more of a reputational or ethical concern rather than a direct driver of profit.
- Divergence in ROE and ROA Relationships: In both countries, the correlation between CSR spending and ROE/ROA is either weak or negative, indicating that CSR's primary financial effect is more visible in net profitability than in returns-based ratios.
- High R-squared Value in India's Model: The OLS regression model for India shows an R-squared value of 0.964, indicating a strong explanatory power of CSR spending on profitability. Conversely, the U.S. model's R-squared value of 0.063 suggests that other factors are more influential in driving profit.

CONCLUSION

This comparative study highlights the nuanced relationship between Corporate Social Responsibility (CSR) and profitability within the FMCG sector across two distinct economic landscapes—India and the United States. The analysis reveals that in India, CSR spending is strongly and positively correlated with financial performance indicators, particularly Net Profit. This suggests that in developing economies, where regulatory frameworks like Section 135 of the Companies Act mandate CSR, companies that actively engage in social initiatives tend to gain enhanced goodwill, consumer trust, and ultimately, improved profitability.

Conversely, in the United States, the relationship between CSR and profitability is statistically weak or negative. This could be attributed to the voluntary nature of CSR in developed markets, where social responsibility is often seen as a baseline expectation rather than a differentiator. In such contexts, the returns on CSR investments may be more reputational and long-term rather than directly financial.

In essence, CSR's impact on profitability is context-dependent. For firms operating in developing economies, CSR can serve as a strategic tool for competitive advantage, while in developed economies, its value may lie more in sustaining ethical standards and meeting stakeholder expectations. These findings underscore the importance of tailoring CSR strategies to the economic, regulatory, and cultural context in which a business operates.

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