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AN ANALYSIS OF SALES PERFORMANCE IN STAP APPERALS COIMBATORE

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Abstract:

In today's competitive and data-driven business environment, real-time access to sales performance information has become essential for strategic decision-making. This study focuses on the design and implementation of an interactive sales performance dashboard for STAP Apparels, a medium-sized apparel manufacturing and retail company. Using Microsoft Power BI and Microsoft Fabric, the project transformed static data reports into a live, analytical dashboard capable of tracking sales trends, profitability, and product-wise performance.

The research employs a descriptive design and secondary data from 2020-2024, comprising 5,000 records amounting to over ₹150 crore in sales. Through advanced visualization and forecasting models, the dashboard provides insights into the company's operational efficiency and long-term sustainability. The findings reveal steady growth in total sales and profitability, with T-shirts and polo T-shirts contributing most significantly. The study concludes that the implementation of a sales dashboard enhances business intelligence capabilities, enabling data-driven decision-making, improved performance monitoring, and better strategic planning for future growth.

Key Words: Sales Performance, Power BI, Microsoft Fabric, Dashboard Design, Apparel Industry, Business Intelligence

Introduction:

In the dynamic landscape of the apparel industry, the ability to monitor and evaluate sales performance efficiently is a critical determinant of business success. Traditional reporting systems often rely on static spreadsheets and manual analysis, which limit the timeliness and accuracy of decision-making. Modern business environments, however, demand interactive, data-driven tools capable of providing instant insights into operational performance (McKinsey & Company, 2024).

STAP Apparels, established in 2005, is a medium-sized garment manufacturer specializing in men's, women's, and children's apparel. The company has expanded its presence both domestically and internationally, focusing on affordable, high-quality fashion. Despite its growth, the firm has experienced challenges due to fluctuating sales across seasons, shifts in consumer preferences, and intense market competition. To address these issues, the company initiated the design of a Sales Performance Dashboard using Microsoft Power BI and Microsoft Fabric, aiming to improve data visualization, monitor real-time sales, and enable evidence-based decision-making.

This research provides a comprehensive analysis of STAP Apparels' sales performance over a five-year period (2020-2024), evaluating both historical trends and predictive insights. The study emphasizes how interactive dashboards can transform sales data into strategic intelligence, bridging the gap between traditional reporting and modern analytics.

Objectives of the Study:

- To analyse key sales metrics such as revenue, units sold, and top products.
- To design a real-time sales performance dashboard for STAP Apparels.
- To simplify and automate sales reporting processes.
- To provide visual insights for better business decision-making.

Review of Literature:

The integration of technology and analytics in the apparel industry has been the focus of several contemporary studies:

Bedi, Pandit, & Gautam (2024) conducted a systematic review on demand forecasting of online fashion apparel using machine learning, published in the AIP Conference Proceedings. Their research suggested that machine learning models outperformed traditional forecasting methods, leading to more accurate inventory planning and enhanced sales outcomes in e-commerce fashion retail.

Goti (2024) published a review on artificial intelligence in business-to-customer fashion retail in Mathematics. The study highlighted the breadth of AI applications in personalizing customer experiences, streamlining supply chains, and improving inventory accuracy. Findings suggested that firms embracing AI technologies recorded higher sales conversion rates and better profitability.

Haque et al. (2024) examined the application of artificial intelligence in retail marketing in their article published in Information. Their study found that AI-driven tools such as recommendation engines, chatbots, and dynamic pricing improved consumer engagement and increased sales. The authors emphasized that AI adoption directly correlates with higher conversion rates and stronger financial performance.

Swaminathan & Venkitasubramony (2024) revisited their earlier work and provided updated evidence that hybrid demand forecasting models continued to outperform traditional techniques. Their systematic review reaffirmed that advanced forecasting techniques reduced the risks of under- and over-production, directly contributing to improved sales performance.

McKinsey & Company (2023) published Redesigning Apparel Manufacturing in Asia: A Pattern for Resilience, which examined how reshoring and near shoring strategies were enabling firms to secure supply chains and respond to demand fluctuations more effectively. The report indicated that such measures not only minimized risks but also improved responsiveness to consumer needs, thereby positively impacting sales.

Research Design:

A descriptive research design was adopted to capture the existing patterns and trends in STAP Apparels' sales performance without manipulating variables. This approach provides a factual and analytical view of the company's operational data.

Data Analysis Tools:

- SPSS
- Power BI Dashboard

Data Analysis and Interpretation:

Ratio Analysis:

Table 1: Gross Profit Ratio (FY 2020-2024)

Year	Sales (₹)	Raw Material (₹)	Gross Margin (%)
2020	29,74,41,477	10,65,25,174	64.19
2021	29,95,21,781	10,66,12,060	64.41
2022	29,94,62,654	10,63,78,300	64.48
2023	30,11,49,427	10,68,66,081	64.51
2024	30,24,22,931	10,77,94,844	64.36
Total	1,49,99,98,270	53,41,76,459	64.39

Interpretation:

The table shows a consistent increase in sales each year, rising from $297.4 million in 2020 to $302.4 million in 2024, demonstrating steady revenue growth. However, this revenue growth has not translated into a strong, consistent increase in profit. Annual profit has fluctuated, peaking in 2023 at $86.3 million before slightly dropping to $86.2 million in 2024, despite the highest sales figure that year. The profit margin has remained remarkably stable, hovering narrowly between 28.39% and 28.67% across the entire period.

Table 2: Sales Growth Rate

Year	Sales (₹)	Sales Rate
2020	29,74,41,477	-
2021	29,95,21,781	0.069939943
2022	29,94,62,654	-0.00197405
2023	30,11,49,427	0.056326656
2024	30,24,22,931	0.04228811
Total	1,49,99,98,270	-

Interpretation:

The table reveals a pattern of inconsistent, yet generally positive, sales growth over the period. Sales grew strongly in 2021, with a rate of 6.99% compared to 2020. However, the company experienced a significant setback in 2022, registering a negative growth rate of -0.20%, indicating a slight but notable decline in sales revenue compared to 2021. Sales recovered in 2023, showing a solid growth rate of 5.63%, which demonstrates the company's resilience in bouncing back from the previous year's dip.

Table 3: Sales to Expenses Ratio (FY 2020-2024)

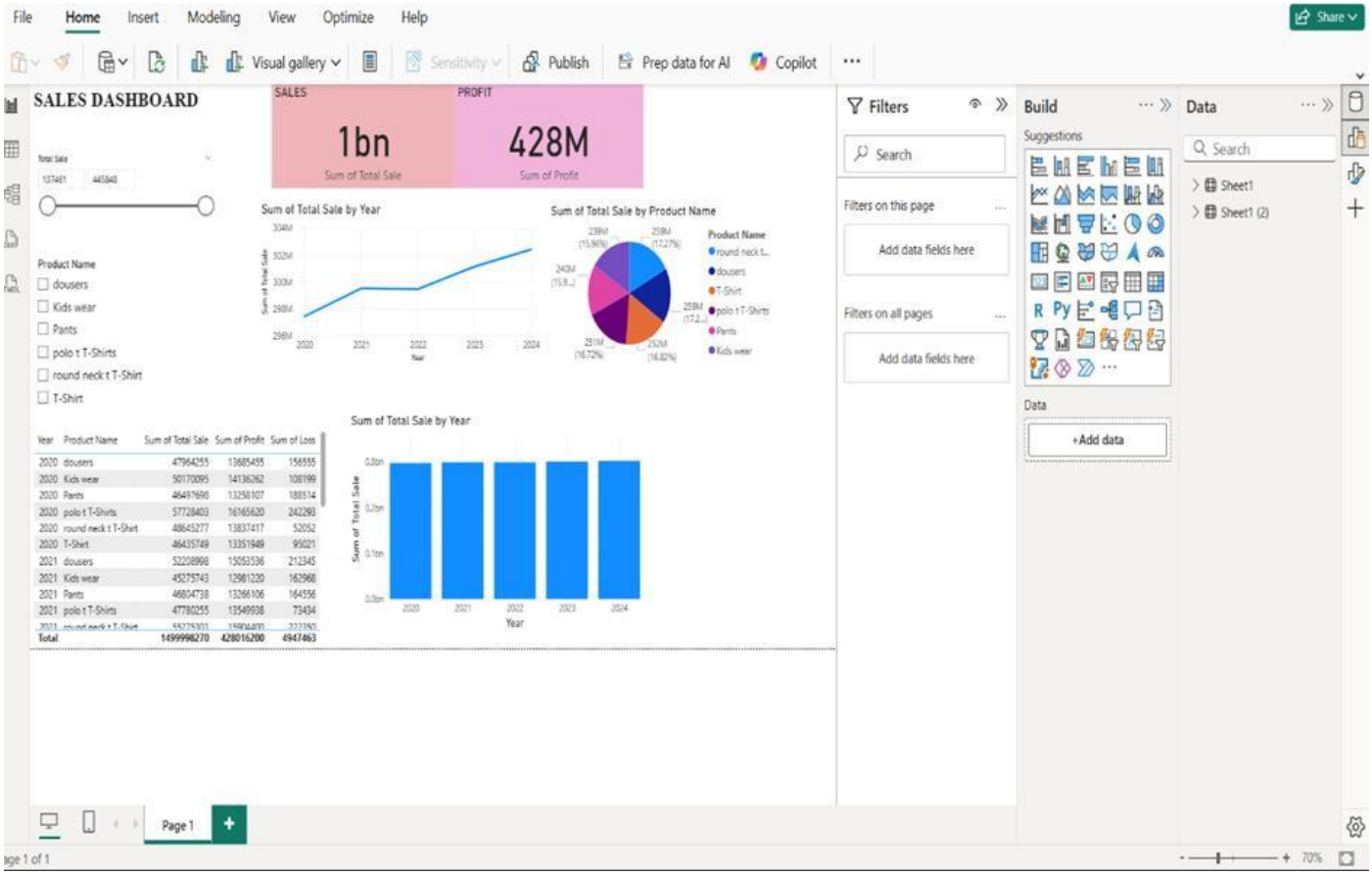
Year	Sales (₹)	Manufacturing Cost (₹)	Raw Material (₹)	Production Cost (₹)	Salary (₹)	Ratio
2020	29,74,41,477	21,30,05,121	10,65,25,174	5,10,98,123	93,21,75,096	0.228309
2021	29,95,21,781	21,36,87,871	10,66,12,060	5,11,65,133	94,43,63,960	0.22763
2022	29,94,62,654	21,43,28,158	10,63,78,300	5,13,27,577	89,72,14,826	0.235937
2023	30,11,49,427	21,48,08,562	10,68,66,081	5,22,32,748	93,83,50,740	0.229489
2024	30,24,22,931	21,61,47,818	10,77,94,844	5,18,66,336	98,45,91,944	0.222304
Total	1,49,99,98,270	1,07,19,77,530	53,41,76,459	25,76,89,917	4,69,66,96,566	0.228639

Interpretation:

The table shows the ratio of total combined expenses (Manufacturing Cost + Raw Material + Production Cost + Salary) to sales, indicating a high degree of consistency in expense management. The Expenses/Sales Ratio has remained exceptionally stable, fluctuating minimally between a low of 0.2223 in 2024 and a high of 0.2359 in 2022. On average, over the five-year period, 22.86% of every dollar in sales revenue is spent on these four core expense categories.

The stability of this ratio is a critical finding, as it reinforces all previous observations: the company's cost structure is firmly under control. Even though the individual cost components and sales figures have increased over time, their proportionate relationship remains almost identical. The only minor deviation occurred in 2022, where the ratio slightly increased to 0.2359, likely due to the negative sales growth that year (as previously noted), meaning expenses consumed a slightly larger portion of the diminished revenue.

Dashboard:



Interpretation:

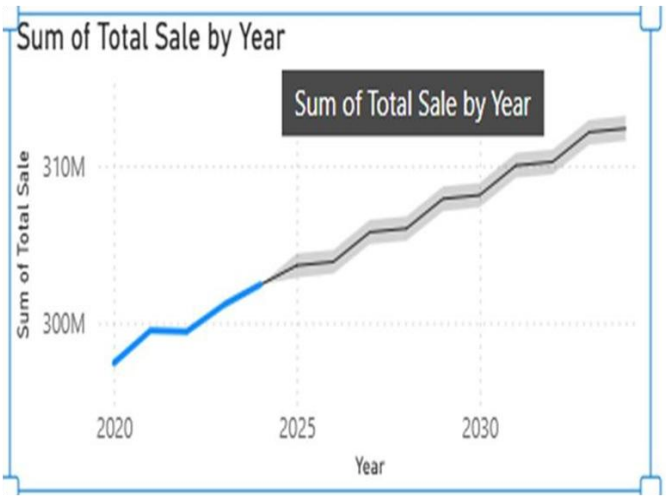
The overall performance analysis clearly shows that the organization maintains strong financial positioning. Total sales have reached 1 billion, and total profit stands at 428 million, indicating strong revenue generation and healthy profitability. The yearly sales trend confirms consistent growth from 2020 to 2024, and the line and bar chart analysis validates continuous upward movement, showing positive business momentum.

Product-wise contribution analysis reveals that the major revenue drivers are T-Shirts, Polo T-Shirts, Pants, and Dousers, while Kids Wear and Round Neck T-Shirts show comparatively lower contributions. The pie chart distribution highlights the percentage share of each category in overall revenue.

The profit and loss evaluation shows that most product categories are generating substantial profit, and even though a few categories show minor losses, the overall effect on total performance is minimal. This indicates efficient operational control and scope for further cost optimization.

The sales forecast model reflects that future growth is expected to continue in an upward direction even beyond 2024, demonstrating long-term sustainability in sales performance. Interactive features such as slicers and filters used in the dashboard make the analysis more flexible, allowing decision-makers to drill down into specific years, product categories, and sales ranges for more accurate decision-making.

Future Sales:



Interpretation (Future Sales):

The sales forecast indicates a consistent upward trajectory beyond 2024, with projected revenues surpassing ₹310 million by 2030. This steady growth reflects STAP Apparels' strong market stability, effective product strategies, and adaptability to

evolving consumer trends. The narrow confidence interval further confirms the reliability of the forecast, suggesting sustained long-term performance and opportunities for expansion through innovation and digital transformation.

Findings:

- Consistent Growth: STAP Apparels achieved stable and continuous sales growth from 2020 to 2024, rising from ₹297 million to ₹302 million annually.
- Profitability: The company maintained a strong profit margin (approx. 42.8%), reflecting efficient cost control and effective pricing strategies.
- Product Performance: T-Shirts and Polo T-Shirts contributed the highest sales and profit, while Kids Wear and Pants showed moderate performance.
- Forecasting Results: Predictive modelling indicated continued growth, with sales expected to exceed ₹310 million by 2030.
- Data-Driven Decision-Making: Implementation of Power BI and Microsoft Fabric enhanced real-time performance monitoring and reduced reliance on static reports.
- Operational Efficiency: The company demonstrated balanced resource utilization and minimized losses across departments.
- Visualization Benefits: Interactive dashboards simplified complex data, enabling faster and more accurate decision-making.

Suggestions:

- Focus on Core Products: Increase marketing and production investments in T-Shirts and Polo T-Shirts, the company's strongest revenue drivers.
- Enhance Underperforming Segments: Revamp Kids Wear and Pants through design innovation, targeted advertising, and seasonal promotions.
- Adopt Sustainable Practices: Utilize eco-friendly materials and efficient production processes to improve brand image and achieve long-term cost savings.
- Expand Market Reach: Explore e-commerce and international channels to diversify revenue sources and mitigate domestic market risks.
- Continuous Monitoring: Encourage managers to use live dashboards regularly for decision-making and performance tracking.
- Improve Supply Chain Efficiency: Implement predictive analytics for demand forecasting and inventory optimization.
- Strengthen Customer Engagement: Leverage social media analytics and personalized marketing to enhance customer loyalty and repeat purchases.

Conclusion:

The analysis of STAP Apparels' sales performance demonstrates the transformative potential of business intelligence tools in modern organizational management. The company's consistent sales growth and profitability between 2020 and 2024 underscore its strong market position. By adopting Microsoft Power BI and Fabric, STAP Apparels successfully transitioned from traditional reporting systems to real-time analytics, empowering data-driven decision-making and strategic agility.

The predictive models indicate a promising growth trajectory, suggesting that sustained technological innovation, market expansion, and product diversification will secure the company's future competitiveness. Ultimately, this project exemplifies how integrating data visualization and analytics into business operations can enhance performance, improve forecasting accuracy, and ensure long-term organizational sustainability in the apparel industry.

References:

1. Bedi, S., Pandit, A., & Gautam, A. (2024). A systematic review on demand forecasting of online fashion apparel using machine learning. AIP Conference Proceedings, 2999(1), 040020.
2. Divya, D., Darshan, R., & Abdullah, A. S. (2025). Financial performance and working capital management at Devi Motors-A Yamaha dealership perspective. Interpretation, 26(96,777), 2-41.
3. Goti, A. (2024). Artificial intelligence in business-to-customer fashion retail: A systematic review. Mathematics, 12(4), 620.
4. Haque, R., Rahman, S., Alam, M., & Sultana, T. (2024). Artificial intelligence in retail marketing: A review of recent applications. Information, 15(2), 89.
5. McKinsey & Company. (2023). Redesigning apparel manufacturing in Asia: A pattern for resilience. McKinsey & Company.
6. Mostaghel, R. (2020). Digitalization-driven retail business model innovation: A systematic review. Journal of Business Research, 121, 513-527.
7. Ranganayaki, C. R. (2024). A study on analyzing the financial performance and conducting ratio analysis of the company "Voith." Journal of The Oriental Institute, 86-92.
8. Swaminathan, S., & Venkitasubramony, R. (2024). Advances in hybrid forecasting models for apparel demand. International Journal of Forecasting, 40(2), 345-360.
9. Jayashree, R. (2025). A study on financial performance analysis of United Tyres with reference to Coimbatore City. International Journal of Research in Management, 7(1), 604-607.
10. Merceline Anitha, B., & Santhosh Kumar, R. (2024). A study on analysis of working capital at Autotex Private Limited. 0976-5425, 30(02), 113-116.