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The Study on Profitability Across Product Lines in Visakan Garments, Tirupur

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Abstract-- This report analyses profitability across product lines with emphasis on its role in financial health and decision-making. It examines profitability using key financial ratios and product-level evaluations to understand variations across offerings. Categories of analysis include revenue distribution, cost structures, and operational efficiency. The study explores how departmental functions such as production, quality control, logistics, and finance contribute to profitability outcomes. Costing methods and pricing approaches are reviewed to highlight their influence on margins. Consumer trends and sustainability practices are included as factors shaping long-term profitability. Overall, the report provides a structured examination of profitability through multiple functional and strategic categories.

Keywords-- Product Lines, Cost Structures, Revenue Distribution, Resource Utilization, Operational Efficiency, Cost Allocation, Financial Performance, Margins, Profit Analysis.

I. INTRODUCTION

Profitability is a central measure of organizational performance, reflecting the ability to generate income relative to costs and resources. It serves as both a financial indicator and a foundation for strategic planning. Understanding profitability requires examining how revenues, expenses, and margins interact within different product lines. Operational efficiency and effective cost management are critical to sustaining margins over time. This study focuses on structured analysis of profitability through these categories to provide a comprehensive view.

II. OBJECTIVES

- To identify the profitability of each major product segments.
- To examine how revenue and various cost components affect profitability of each product segments.

III. REVIEW OF LITERATURE

1. *Primasatria and Alfons (2024)* – Conducted a bibliometric analysis of profitability research trends (2019–2024). They identified themes like working capital, investment decisions, liquidity, and financial risk, while also highlighting underexplored areas for future research.

2. *Rutkowska-Ziarko (2023)* – Studied firms on the Warsaw Stock Exchange and found that company size and profitability ratios significantly affect investment risk. Larger firms showed more stable profitability, while smaller firms faced higher volatility.
3. *Trivedi (2023)* – Analysed financial ratios of Indian oil companies, showing that profitability reflects resource efficiency, cost management, and revenue generation. He emphasized profitability as a key indicator of long-term viability.
4. *Elsharif (2023)* – Investigated liquidity management in the banking sector and concluded that optimal liquidity planning enhances financial performance, while poor decisions reduce earnings. The study linked profitability closely with liquidity.
5. *Nissim (2023)*: Proposed a framework separating operating and financing activities to more accurately assess core profitability. This method provides clearer insights into business efficiency, value creation, and strategic execution, avoiding distortions from conventional analyses.
6. *Das (2023)*: Evaluated NABARD-funded climate adaptation projects in India, showing that these initiatives improved rural resilience and profitability via better resource use, agricultural productivity, and infrastructure. Emphasized the need for sustained financial and institutional support for scalable economic and environmental benefits.
7. *Institute of Public Enterprise (2023)*: Examined corporate governance in Indian stock markets, finding that strong governance through transparency, accountability, and effective boards enhances firm value and profitability. Empirical analysis showed that well-governed companies outperform peers, with investor confidence and regulatory support playing key roles in sustainable value creation.

IV. RESEARCH METHODOLOGY

Research Design & approach:

The study uses a descriptive research design and a quantitative approach to analyse 5-year profitability trends across garment product lines using audited financial data.

Sampling Technique:

Purposive sampling focuses on high-revenue products like T-shirts, polo shirts, joggers, and boxer shorts to provide relevant insights and practical recommendations.

Statistical Tools Used:

- Percentage Analysis
- Correlation Analysis
- Multiple linear regression

V. DATA ANALYSIS AND INTERPRETATION:

Percentage analysis:

Table showing operating profit margins of the year 2020-2025

Product line	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
	%	%	%	%	%
Custom logo appeals	50.99	45.06	37.81	42.66	45.28
Polo shirts	50.93	42.68	38.40	41.48	45.78
Joggers & casual pants	47.12	39.64	34.01	41.74	41.78
Boxer shorts	50.32	37.43	34.43	39.22	46.41
Round neck t-shirts	45.97	35.27	32.82	40.86	43.65

Interpretation:

Operating profit margins declined from 2020–2021 to 2022–2023 but recovered from 2023–2024 onward. Custom Logo Appeals, Polo Shirts, and Boxer Shorts

ended with strong margins above 45%, while Joggers & Casual Pants and Round Neck T-shirts also improved to around 42–44%, showing better efficiency and margin control

Profitability level:

Table showing profitability level of the year 2020-2025

Product line	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Custom logo appeals	High	High	Low	Medium	High
Polo shirts	High	Medium	Medium	Medium	High
Joggers & casual pants	High	Medium	Low	Medium	Medium
Boxer shorts	High	Low	Low	Medium	High
Round neck t-shirts	High	Low	Low	Medium	Medium



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Interpretation:

Profitability across product lines was strong in 2020–2021 but weakened by 2022–2023, with several lines at “Low.” From 2023 onward, margins steadily recovered, and by 2024–2025 key products like Custom Logo Appeals and Boxer Shorts returned to “High,” reflecting improved performance and stability.

CORRELATION:

Hypothesis:

Null Hypothesis (H₀): There is no significant correlation between the variables (e.g., revenue/costs and profitability) (i.e., the correlation coefficient $r = 0$).

Alternative Hypothesis (H₁): There is a significant correlation between the variables (e.g., revenue/costs and profitability) (i.e., the correlation coefficient $r \neq 0$).

Product Line	Variable	Correlation with Profit Margin	p-value	Significance
Custom Logo Apparel	Revenue	+0.518	0.002	Significant
	COGS	-0.280	0.030	Significant
	Direct Expenses	-0.087	0.064	Not Significant
	Operating Indirect Exp	-0.136	0.047	Significant
Polo Shirts	Revenue	+0.481	0.003	Significant
	COGS	-0.278	0.051	Not Significant
	Direct Expenses	-0.121	0.075	Not Significant
	Operating Indirect Exp	-0.158	0.034	Significant
Joggers & Casual Pants	Revenue	+0.502	0.001	Significant
	COGS	-0.317	0.022	Significant
	Direct Expenses	-0.093	0.089	Not Significant
	Operating Indirect Exp	-0.161	0.041	Significant
Boxer Shorts	Revenue	+0.488	0.004	Significant
	COGS	-0.290	0.045	Significant
	Direct Expenses	-0.097	0.072	Not Significant
	Operating Indirect Exp	-0.170	0.029	Significant
Round Neck T-shirts	Revenue	+0.470	0.005	Significant
	COGS	-0.260	0.058	Borderline
	Direct Expenses	-0.084	0.097	Not Significant
	Operating Indirect Exp	-0.148	0.039	Significant

Interpretation:

The correlation results show that revenue is the key positive driver of profitability across all product lines. COGS consistently have a negative effect, significantly lowering margins in several cases. Direct expenses have little to no significant impact, indicating minimal influence on profitability. Operating indirect expenses are a major concern, with significant negative correlations highlighting overhead inefficiencies. Overall, profitability relies on strong sales growth supported by tighter control of costs and overheads.

REGRESSION:

Hypotheses:

Null Hypothesis (H₀): Revenue, Cost of Goods Sold (COGS), Operating Direct Expenses, and Operating Indirect Expenses do not have a statistically significant effect on Operating Profit Margin.

Alternative Hypothesis (H₁): Revenue, Cost of Goods Sold (COGS), Operating Direct Expenses, or Operating Indirect Expenses has a statistically significant effect on Operating Profit Margin.

Product Line	Predictor	Coefficient	p-value
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Interpretation:

Revenue strongly and positively impacts profit across all product lines, emphasizing the importance of sales growth. COGS significantly reduce profitability, highlighting the need for cost control. Operating indirect expenses negatively affect profit, suggesting efficiency improvements. Direct expenses have minimal and mostly insignificant impact. Overall, focusing on increasing revenue and managing costs can enhance profitability.

VI. FINDINGS

1. Percentage Analysis:

- Operating margins fell from 2020–2023 due to rising costs but improved from 2023–2024 onward.
- By 2024–2025, Custom Logo Apparel, Polo Shirts, and Boxer Shorts reached margins above 45%, while Joggers, Casual Pants, and Round Neck T-shirts stabilized around 42–44%.

2. Profitability Levels:

- All product lines started highly profitable in 2020–2021.
- Most dropped to low profitability by 2022–2023 (except Polo Shirts at medium).

- Recovery began in 2023–2024, with Custom Logo Apparel and Boxer Shorts returning to high profitability by 2024–2025; others settled at medium.

3. Correlation Analysis:

- Revenue is strongly and significantly positively correlated with profitability.
- COGS consistently reduce margins.
- Direct expenses have weak, insignificant effects.
- Indirect operating expenses show strong negative correlations, indicating overhead inefficiencies.

4. Regression Results:

- Revenue is a significant positive driver of operating profit across all lines.
- COGS and indirect expenses significantly reduce profitability.
- Direct expenses have minimal influence.

VII. SUGGESTIONS

1. Strengthening Cost Management:

Profitability can be improved by enforcing stricter cost control, especially over COGS through efficient procurement, waste reduction, and lean production methods. Reducing indirect overhead expenses is crucial, as they consistently show a strong negative impact on margins.



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2. Enhancing Revenue Growth:

Since revenue has the strongest positive effect on profitability, strategies to increase sales should be prioritized. Diversifying product offerings, introducing innovative designs, expanding into new markets, and leveraging digital marketing and e-commerce platforms can significantly boost customer reach and revenue.

3. Improving Operational Efficiency:

Operational efficiency can be strengthened by optimizing resource utilization and improving supply-chain and inventory management. Adopting technology to reduce delays and errors, along with regular performance monitoring of each product line, ensures quicker corrective action and better management of underperforming categories.

VIII. CONCLUSION

The financial analysis highlighted how revenue and costs impact profitability across key product lines, with Polo Shirts and Boxer Shorts performing best, while Round Neck T-shirts show improvement potential. Future strategies should balance high-margin and emerging products, focus on cost control, pricing optimization, and monitor performance through KPIs. Using data-driven tools and reviewing underperforming segments will refine decision-making. Overall, the study provides a foundation for a proactive profitability strategy that supports sustainable growth and competitive positioning.

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