

Analytics-Driven Channel Partner Profitability Enhancement and Product Mix Optimization

B. Nandhini¹, Dr. G. Rajini^{2*}

ABSTRACT

Lubrication manufacturers need to find ways beyond just increasing their sales revenues to maintain profitability in an increasingly competitive lubricants market. This project will be studying the potential application of an analytics framework to improve both product mix and profitability of the channel partners of a key lubricant manufacturer within southern regional distribution network in India. To verify the researcher's hypothesis, statistical analyses will be performed on the internal sales data of the last two fiscal years (FY2023/FY2024 & FY2024/FY2025) for each of the six southern states of India and by sale per channel partner by performance and by contribution margin. All aspects of data analysis and visualisation will be done using both Microsoft Excel and Power BI. In conclusion, analysing sales and channel partner performance only on a volume basis convolutes the data set. Within this convoluted data set, the researcher will also conclude that the top partners represent a very small portion of total regional sales and that the regions high margin product categories (including PCMO, SCV, and Vehicle Care) are well below average in terms of being represented in the current channel partner's product mix. This report recommends making the use of data dashboard software an institutionalized process for managing channels on a regular basis; rebalancing a product mix by moving toward higher profit margin categories; and developing a relationship between segmentation strategies and partner profitability. It was found that the switch from using intuition as the basis for managing channels to using evidence has a direct effect on generating higher profit margins and provides a sustained competitive advantage.

Keywords: *Channel Partner Profitability, Product Mix Optimization, Analytics-Driven Framework, Lubricants Industry, Contribution Margin Analysis, Sales Analytics*

Businesses are increasingly depending on large networks of Channel Partners, Distributors, Dealers, and Resellers to expand their reach geographically, enter new markets and sustain revenue growth in today's very competitive marketplace. However, profitability as related to Channel (Distributor) Distribution is more complex than most Companies assume at first glance. When all costs related to Channel Distribution (i.e., Trade Discounts, Logistics Fees, Inventory Cost, Promotional Support and Partner

¹Student, School of Management Studies, Vels Institute of Science, Technology and Advanced Studies (VISTAS), Chennai, Tamil Nadu

²Professor & Director-MoUs, School of Management Studies, Vels Institute of Science, Technology and Advanced Studies (VISTAS), Chennai, Tamil Nadu

*Corresponding Author

Received: May 12, 2026; Revision Received: May 14 2026; Accepted: May 16, 2026

Analytics-Driven Channel Partner Profitability Enhancement and Product Mix Optimization

Incentives) are deducted, the resulting profitability from Indirect Sales Channels is termed Channel Partner Profitability.

With constant pressure on margins, relying solely on sales targets to measure efficiency in the channel has become increasingly limited. The use of incentive programs that are misaligned with actual performance, inaccurate forecasts of future demand, poor allocation of product, and poorly structured discount programs all contribute to eroding contribution margins. A comprehensive, data-driven assessment framework that measures each channel partner's real contributions via profitability, operational effectiveness, strategic value and revenue can solve this problem.

The optimization of the product mix brings discipline into the process. Organizations use data on past sales, along with contribution margins, demand elasticity trends, and partner performance metrics, to make evidence-based decisions about product emphasis, product rationalization, and partner incentives to coordinate selling behaviour with earnings objectives. The incorporation of advanced analytics into channel management signifies a major shift from managing reactively to managing proactively, enabling the identification of opportunities and risks before the loss of significant value.

Statement of the Problem

Simultaneous market share, pricing power, and profitability competition are strategic challenges faced by the lubricants industry the major challenge for heritage companies with strong distribution networks and diversified product lines is profitable optimization, that is, ensuring that revenues generated by channel networks will produce sustainable financial returns.

At the centre of this issue is a structural gap: most lubricant companies continue to base channel partner success on volume alone. As a result, they do not typically evaluate the quality of their revenues, including margin contribution, product mix and cost structure per partner, and primarily place value on partners meeting sales targets. Therefore, partners who are high volume but low margin get lots of attention while high margin partners that have focused business operations do not get the same level of support. This leads to a skewed performance measurement system.

The other element of product mix is critical as well. Revenue is still concentrated on a few volume-based product categories and higher-margin products are not being utilized properly, therefore making up a small percentage of total sales. The sales mix today does not adequately reflect new high-growth categories that will help to determine future competition; thus, without an intentional analytical-driven process, this discrepancy will continue. Lastly, decisions related to price changes, discounts, promotional support, and partner investments are still based mainly on experience or gut instinct, instead of through analytical data; thus, creating a structural disadvantage that needs immediate attention.

Need for the Study

The vast automotive fleet, increasing manufacturing base and sizeable agriculture are the principal forces propelling the growing Indian lubricant market currently projected at USD 5 billion and projected to continue to grow 2 - 3 %/year. Managing this side of the environment without using analytics-based direction, creates blind spots that competitors can take advantage of. The way to optimize profitability and strengthen brand position is through informed product mix, using real data of margins and demand trends. This project addresses

Analytics-Driven Channel Partner Profitability Enhancement and Product Mix Optimization

the need for a comprehensive analytical framework that incorporates financial and operational performance dimensions. Channel performance is defined through a multi-faceted evaluation that establishes benchmarks based on margin contribution, product mix efficiency and operational effectiveness rather than simply revenue. This will provide a more reliable basis for resource allocation and strategic decision-making.

Objectives

- To analyze the profitability trends of channel partners and identify factors affecting their margins.
- To examine the impact of product mix and pricing strategies on channel partner profitability.
- To evaluate the current product mix and identify gaps between demand and profitability.
- To use data analysis techniques to understand sales patterns and demand trends across the southern regional distribution network.
- To suggest improvements in marketing activities, incentive structures, and inventory management to enhance profitability.

REVIEW OF LITERATURE

The relationship between analytics, channel management, and profitability has received extensive academic study in the past couple of years. Joel & Oguanobi (2024) studied how predictive analytics tools enable businesses to grow by allowing much more accurate predictions of future business trends-based on customer segments, demand forecasts and dynamic pricing, among others. According to the multi-dimensional analytics maturity model created by Raj & Kudapa (2022), the major bottleneck in companies is that there is a gap between an organization's analytical capability and how integrated their decision-making is. Companies with a higher analytical maturity consistently achieve greater performance.

The structuring of channel profit management in structural economics was reviewed by Jeuland and Shugan (2008), who concluded that designing margin allocation mechanisms and coordinating incentive arrangements is critical to channel profitability. They also found that many partnerships end up destroying value in the entire channel system when partners are compensated for moving volume rather than quality of margin. Nair and Srinivasan (2022) continued this line of investigation with their work on hidden costs in channel partner relationships within distribution-intensive firms in India. They proposed a cost-to-serve analytics framework which indicated that channel partner revenue is not a good measure of channel partner profitability.

The use of analytics-empowered partner management tools had been linked to increased revenue growth and improved partner relationship quality, Kirgotty (2025) has concluded, due to the assistance of analytical tools in moving organizations from reactive to proactive management of their partners. Through the use of analysis-empowered partner relationship management solutions, sales speeds have increased; channel conflicts reduced; and partner retention has increased, as demonstrated by Zhang & Li (2022) as well as others. Furthermore, when strategizing for effective channel partnerships, using data-driven partner segmentation provides a more targeted and successful method than utilizing a generalized approach, as seen by Ghosh & Eriksson (2020).

According to Rajput and Singh (2021), targeting SKU rationalization in the automotive lubricants marketplace based on margin analysis results in distributor and organizational

Analytics-Driven Channel Partner Profitability Enhancement and Product Mix Optimization

profit improvement. In contrast to that, having too many SKUs in the marketplace with too many SKUs being low margin, slow selling products cause high inventory carrying costs and result in a reduction of the focus of selling products. Analytics based product mix strategies can increase contribution margins and reduce cannibalisation (Naphade 2024) based on the analysis of many different types of products sold together by different manufacturers. As noted by Patel and Joshi (2021), improper design of incentive programmes based solely on volume achievement will always cause a systematic increase in operating costs, while not providing any overall improvement in financial performance, by redesigning incentive programs using analytics-based insights related to the margin contribution of partner behaviour.

RESEARCH METHODOLOGY

The researchers conducted analysis using both qualitative and quantitative methods of data collection using internal sales data from the product line sold by a major institutional lubricant manufacturer based in India, as well as descriptive statistical reporting methods to identify profitable channel partners and product mix. Since sales records were not available on a local level, financial audits of each company's sales to end user (retail, automotive, industrial) through to its regional distribution existed for each company within the southern region. All of the research data collected as a result of this study was done so under strict confidentiality constraints imposed by the organization under which this research was conducted.

Internal sales reports that provide billed quantities, gross sales values, and net sales values by product, segment, and channel partner; channel partner performance data that includes partner-wise billing records and growth metrics; product-wise contribution margin data (CM/BSK—Contribution Margin per Billing Sales Key) by product segment; state-wise sales distribution data that covers Tamil Nadu, Karnataka, Andhra Pradesh, Telangana, Kerala, and Pondicherry; and product mix and segment composition data that allows analysis of the relative contributions of various product categories.

Microsoft Excel served as the primary means for performing initial processing, cleaning, and basic analysis of data. In particular, the use of pivot tables allowed for the creation of matrices comparing yearly performance, sales breakdowns by segments and summary of channel partner performance were developed as well. Use of Microsoft Power BI included bar and line graph capabilities along with the ability to create contribution dashboards in order to analyse results and create advanced visual representations of data using an interactive format. Key analytical techniques included sales trend analysis, analysis of channel partner performance, profit margin analysis (CM/BSK), product performance and mix analysis and finally use of the Pareto Principle to identify disparate contributors to overall value.

ANALYSIS AND INTERPRETATION

Table No.1 State-wise Sales Volume Comparison – FY 2024–25 vs. FY 2025–26

State	FY 2024–25 (Qty)	FY 2025–26 (Qty)	Growth %
Tamil Nadu	4,175	4,524	+8%
Karnataka	3,941	4,212	+7%
Andhra Pradesh	3,190	3,093	-3%
Telangana	2,854	2,981	+4%
Kerala	2,129	2,229	+5%

Analytics-Driven Channel Partner Profitability Enhancement and Product Mix Optimization

State	FY 2024–25 (Qty)	FY 2025–26 (Qty)	Growth %
Pondicherry	698	719	+3%
Total (Region)	16,987	17,758	+4.5%

The sales volume in Tamil Nadu went up by 8 percent. This is a deal. It went from 4,175 to 4,524 units. This is the increase in sales volume and growth rate of any state. So, Tamil Nadu is the market in the southern region. Karnataka had a 7 percent growth in sales volume. This means they handled their sales channels well. As a result, they had an increase in sales volume. Andhra Pradesh is a story. The sales volume actually went down by 3 percent. This is the state where sales volume decreased. The people in charge need to take a look at what is going on in Andhra Pradesh. Overall, the southern region did well. The sales volume went up by 4.5 percent. This is a thing.

Table No.2 Top 10 Channel Partners – Sales Contribution Comparison (FY 2024–25 vs. FY 2025–26)

Channel Partner	FY 2024–25 (₹)	FY 2025–26 (₹)	Growth %
Partner A (Highest Biller)	5,65,238	4,71,882	-12.25%
Partner B	5,41,334	4,08,895	+8.04%
Partner C	4,65,038	3,76,984	+6.35%
Partner D	4,10,522	3,56,007	+5.71%
Partner E	3,96,060	3,26,152	+5.48%
Partner F	4,45,272	3,05,125	+3.99%
Partner G	3,56,409	3,04,875	+4.58%
Partner H	3,58,549	2,98,666	-4.75%
Partner I (Growth Leader)	2,95,094	2,98,553	+4.50%
Partner J	3,36,056	2,90,280	+3.71%

We looked at the performance of the channel partners. The partner that sold the most had a drop in sales volume. It went down by 12.25 percent. This is a problem. They need to fix it. The Growth Leader partner is the one that had real growth. Their sales went from ₹2,95,094 to ₹2,98,553. They are an example of how a channel partner should work. Partner H had a drop in sales volume too. It went down by 4.75 percent. They need to make some changes. Some partners had a drop in sales. They are selling more valuable products. This means they will make money, per unit. This is a thing. The Tamil Nadu sales volume and the channel partners sales volume are important to look at. The sales volume of Tamil Nadu and the channel partners will help us understand what is going on.

Table No.3 Segment-wise Profit Margin (CM/BSK) – FY 2024–25 vs. FY 2025–26

Segment	FY 2024–25 CM/BSK	FY 2025–26 CM/BSK	Trend
AGRI	100–110	95–103	Slight Decline (-5%)
COOLANT	52–60	58–65	Improvement (+8%)
CVO	60–70	70–80	Growth (+14%)
DEF	20–23	17–20	Decline (-13%)
GEAR OILS	90–98	75–85	Decline (-13%)
GREASES	150–200	160–190	Mixed (+3%)
INDUSTRIAL	65–75	75–85	Growth (+13%)
MCO	90–120	100–130	Strong Growth (+9%)
PCMO	120–170	130–150	Growth (+5%)
SCV	60–75	70–80	Strong Growth (+14%)

Analytics-Driven Channel Partner Profitability Enhancement and Product Mix Optimization

Segment	FY 2024–25 CM/BSK	FY 2025–26 CM/BSK	Trend
UTTO	55–70	65–75	Growth (+10%)
VEHICLE CARE	250–400	200–300	Decline (mix shift)

The portfolio experienced the largest margin growth in SCV (Small Commercial Vehicle) and CVO (Commercial Vehicle Oil) segments, which saw new CM/BSK's of approximately +14%. MCO (Motorcycle Oil) had continuous 9% margin expansion with stable volume. PCMO is still the most profitable segment per unit, with the highest absolute margin/percent difference. The largest drops in profitability that will require a price strategy re-evaluation were recorded in DEF and Gear Oils, both declining by 13% in margin. Specialized B2B applications require improved pricing realization, indicated by a 13% improvement in the Industrial segment on margin.

Table No.4 Segment-wise Product Performance – Billed Quantity FY 2024–25 vs. FY 2025–26

Segment	FY 2024–25 (Qty)	FY 2025–26 (Qty)	Growth %
AGRI	2,700	1,400	-22%
CVO	2,500	2,100	-17%
DEF	600	500	-9%
GEAR OILS	1,500	1,500	0%
GREASES	2,600	2,400	+3%
INDUSTRIAL	1,300	1,400	+4%
MCO	3,200	3,200	+7%
PCMO	1,400	1,400	+12%
SCV	700	700	+14%
UTTO	200	200	+5%
VEHICLE CARE	67	376	+133%

The most significant decline in the data set is from the AGRI segment which posted a -22% decrease in volume. This might indicate more competitive activity; lacking distribution points in rural areas or even a greater market wide decline due to recessionary conditions would seem to be supported by these facts. Even though CVO's -17% decrease in volume is concerning, part of this will be offset by the increase in margin thus indicating a potential shift in strategy towards fewer transactions with higher dollar values. The growth component within the overall dataset are particularly strong when considered together with the statistics for MCO (+7% v.o.l.), PCMO (+12vml) and SCV (+14vml); therefore, it can be inferred that each are gaining market share within ones which currently represent categories of importance (colloquially referred to as high-margin). While the Vehicle Care component is infinitesimally small as a percentage of their entire volume, the increase from 67 units in 2018 to over 376 units in early 2022 shows potential for significant early-stage growth, thus warranting considerable amounts of attention and/or strategic development from both companies involved.

Table No.5 Segment-wise Product Mix Contribution – FY 2024–25 vs. FY 2025–26

Segment	FY 2024–25 Qty	FY 2025–26 Qty	Mix Status	Growth %
GREASES	1,05,492	77,226	Declining Share	-27.47%
INDUSTRIAL	1,05,780	79,540	Declining Share	-0.94%
MCO	87,704	50,605	Stable	+6.67%

Analytics-Driven Channel Partner Profitability Enhancement and Product Mix Optimization

CVO	61,163	61,177	Stable	+4.92%
SCV	25,685	24,602	Stable	+0.79%
PCMO	3,205	3,121	Low but growing	High potential
VEHICLE CARE	67	376	Rapidly Growing	High Growth

The product mix study shows a portfolio that is overly focused on categories that have historically been high volume. For example, in FY 2024-2025, Greases & Industrial Lubricants collectively represent the majority of overall volume, yet their declining trend in FY 2025-2026 suggests a shift in the product mix and requires active management of the products in order to be effective. Therefore, these high concentrations have a disproportionate impact on overall performance when unfavorable conditions exist in certain segments. Moreover, while PCMO represents a small portion of the total volume, its characteristics as a high margin segment and continued strong growth make it a prime candidate for product mix rebalancing. The other most notable structural change identified through the study is the emergence of Vehicle Care from an almost non-existent category to a meaningful contribution to the overall portfolio.

Table No.6 Channel Partner Contribution Analysis – FY 2024–25 vs. FY 2025–26

Channel Partner	FY 2024–25 Contribution (₹)	FY 2025–26 Contribution (₹)	YoY Change
Partner A	5,65,238 (Highest)	4,71,882 (Highest)	-12.25%
Partner B	5,41,334 (2nd)	4,08,895 (3rd)	+8.04%
Partner C	4,65,038 (3rd)	3,76,984 (4th)	+6.35%
Partner D	4,10,522 (4th)	3,56,007 (5th)	+5.71%
Partner E	4,45,272 (5th)	3,05,125 (6th)	+3.99%
Partner F	3,96,060 (6th)	3,26,152 (7th)	+5.48%
Partner G	3,56,409 (7th)	3,04,875 (8th)	+4.58%
Partner H	3,58,549 (8th)	2,98,666 (9th)	-4.75%
Partner I	2,95,094 (10th)	2,98,553 (2nd growth)	+4.50%
Partner J	3,36,056 (9th)	2,90,280 (10th)	+3.71%

Through the contribution analysis, it can be said that the large concentration of revenue among the top three partners results in both a strategic opportunity and an organizational risk. The opportunity to work with these partners to adjust their product mix toward higher-margin products has the potential to result in considerable increases in profitability due to the growing importance of PCMO, SCV and Vehicle Care. The organizational risk is caused by the fact that the highest-billing partner experienced a -12.25% reduction, resulting in significant exposure for the organization and necessitating a formalized plan for recovery through a structured approach. Only Partner I (Growth Leader) has exhibited real growth in volume, and therefore warrants recognition and more strategic funding to accelerate its development.

Findings

Tamil Nadu and Karnataka are both driving regional growth (8% and 7%, respectively), with Tamil Nadu having the highest growth in the southern region. Andhra Pradesh experienced a 3% decrease in volume, so there is a need for specific corrective action for this region. Overall regional sales are all growing at approximately 4.5% in the current competitive

Analytics-Driven Channel Partner Profitability Enhancement and Product Mix Optimization

environment, which shows that there is good momentum in the market. Due to the fact that the three largest channel partners represent such a large percentage of total regional billing, and the ten largest channel partners demonstrate a very concentrated contribution, there is an opportunity to make a substantial strategic intervention for performance dependency.

The channel portfolio's top-performing partner is the one that generated the majority of our revenue. However, this partner experienced the largest year-over-year drop (-12.25%), creating the most question marks about the viability of the positive partnership within the current market. Only one of the partners included in the top ten, and therefore included in the performance metric, reported an increase in overall volume. The top two performers in terms of margin growth were SCV and CVO, both achieving approximately a 14% increase in CM/BSK. MCO has been a consistently reliable contributor to our profit, with a constant 9% margin increase. PCMO remains the most profitable product segment by unit, as it has generated the greatest dollar amount of margin dollars. The lowest-performing products in the portfolio, DEF and Gear Oils, both experienced an approximate 13% decrease in margin.

The AGRI business experienced the most significant decrease in volume at -22%, raising serious doubts about the ability of agricultural dealer networks to distribute products. A positive gross margin increase for CVO partially mitigates their decrease of volume at -17%, suggesting a move to higher-value transactions. Vehicle Care experienced substantial volume growth of 133%, from 67 to 376 units, verifying an additional stream of revenue has been successfully developed. The product mix currently remains dominated by industrial and grease product categories, both of which have a downward trend in the market. In analyzing potential profitability, PCMO and SCV are significantly less than what their margins establish them as being high-margin categories. The structural mismatch of the product mix is the most substantial opportunity for improvement. Three major drivers of performance, derived through factor analysis of performance measurement metrics, include level of partner engagement, institutionalization of analytical capabilities, and enhancement of contribution margin through product mix re-distribution.

Suggestions

Based on the analytical results, it is suggested that companies develop a formal framework for engaging partners based on data, by segmenting them as either 1) those who have the potential to be strategic (e.g. they cover the market, have a good quality product mix, and have operational capabilities), and 2) those who currently contribute to the company through volume of sales, margins, and growth potential. Having identified partners in this way, the business can use differentiated engagement tactics for each group of partners, by providing extensive support to those partners with high potential for becoming strategic partners, and by engaging partners that are currently underperforming through remedial actions. For the partner with the highest billings and showing a -12.25% decline in performance, there is an immediate need for a systematic recovery plan. The recovery plan should begin with a root cause diagnostic involving discussions with partner management as well as previous data analyses performed to identify shifts in product mix and the competitive environment within which the partner is operating.

A customized recovery plan should incorporate revised pricing agreements, targeted promotions for potential high-growth categories, and a product mix development effort to convert to higher-margin sectors of the economy. Additionally, adjusting the incentive structures to reward partners not only for increased sales but also for increased volume of higher-margin products will further drive partners toward focusing on those categories that

Analytics-Driven Channel Partner Profitability Enhancement and Product Mix Optimization

can yield the greatest profit potential. To accomplish this, the new incentive plan must weigh performance against PCMO, SCV, MCO, and Vehicle Care more heavily than traditional volume measurement metrics. This will allow for a gradual transition by offsetting the loss of volume-related income with margin performance bonus payments.

Due to the PCMO, SCV, and Vehicle Care segments having strong margin performance & growth momentum, all channel partner development initiatives (specialized training programs, improved point-of-sale materials, preferred stocking support, joint promotional campaigns, etc.) should prioritize these segments. The 22% decline in the AGRI segment will require a specific recovery plan that includes competitive positioning analysis, targeted promotional campaigns during peak agricultural seasons, and regional gap mapping of the agricultural dealer network.

This study's analytical dashboards ought to become standard management tools. These dashboards should serve as the foundation for monthly channel performance assessments, and managers at the state level should be held responsible for KPIs related to partner contribution evolution, margin trend, and volume growth. A unique quarterly profitability scorecard that compares performance on volume, margin contribution, product mix quality, and growth trajectory to regional peers should be provided to each of the top twenty channel partners.

CONCLUSION

In order to assess and enhance channel partner profitability and product mix performance in the southern region of a top lubricant business, this study created an analytics-driven framework. The results indicate that the market is shifting from a volume-driven to a value-driven strategy, but existing systems are not entirely in line with this change. Performance is inconsistent, with declines in Andhra Pradesh and specific segments like AGRI and CVO, despite the region's total growth being favourable (around 4.5%). Contributions from channel partners are heavily concentrated, posing concerns of dependency as well as growth prospects. Although the product mix is still skewed toward lower-margin categories, margin performance is increasing in segments like SCV, CVO, MCO, and Industrial. Improving profitability requires rebalancing toward high-margin segments.

REFERENCES

- Akpe, E., Mgbame, C., Abayomi, T., & Adeyelu, F. (2024). AI-enabled dashboards and profitability improvement in micro-enterprises. *Journal of Small Business and Enterprise Development*, 31(2), 178–196.
- Alonge, E. O., Dudu, O. F., & Alao, O. B. (2024). Impact of advanced data analytics adoption on business performance in technology firms. *International Journal of Business Information Systems*, 45(1), 88–107.
- Chatterjee, R., & Kumar, S. (2023). Data-driven customer profitability models: Integrating activity-based costing and predictive analytics. *Journal of Business Research*, 162, 113856.
- Ghosh, A., & Eriksson, M. (2020). Advanced analytics in B2B channel performance evaluation. *Industrial Marketing Management*, 89, 321–335.
- Jeuland, A. P., & Shugan, S. M. (2008). Managing channel profits. *Marketing Science*, 27(1), 52–69.
- Joel, D., & Oguanobi, P. (2024). Predictive analytics for business growth and profitability. *Business Intelligence Journal*, 29(4), 45–62.
- Kirgotty, M. (2025). Partner analytics and channel profitability: Evidence from technology distribution networks. *Journal of Channel and Retail Management*, 12(1), 34–51.

Analytics-Driven Channel Partner Profitability Enhancement and Product Mix Optimization

- Nair, P., & Srinivasan, R. (2022). Cost-to-serve analytics in the Indian FMCG and lubricants sector. *South Asian Journal of Business Studies*, 11(4), 289–311.
- Nandakumar, S., & Pillai, R. (2024). Data analytics for distributor performance evaluation in industrial products. *Journal of Business and Industrial Marketing*, 39(8), 1567–1585.
- Naphade, P. (2024). Predictive modeling for product mix optimization in manufacturing. *International Journal of Production Economics*, 267, 109043.
- Nowar, K. (2024). Impact of customer profitability analysis on firms' strategic performance. *Journal of Business Economics and Management*, 25(2), 155–178.
- Patel, A., & Joshi, B. (2021). Incentive schemes and channel profitability in the FMCG sector. *Journal of Marketing Channels*, 28(3), 211–229.
- Patel, H., & Mehta, S. (2023). AI-enabled product mix optimization in retail chains. *Retail and Consumer Services*, 71, 103211.
- Raj, M. W. Z., & Kudapa, S. P. (2022). Data-driven framework maturity and organizational decision-making. *Information Systems Management*, 39(4), 312–329.
- Rajput, A., & Singh, R. (2021). SKU rationalization and margin improvement in the automotive lubricants industry. *Journal of Business Logistics*, 42(3), 278–295.
- Shankar, V., & Bolton, R. N. (2023). Retail and channel analytics for profit growth. *Journal of Retailing*, 99(2), 234–251.
- Syam, N., & Sharma, A. (2020). Predictive analytics for channel partner performance management. *Journal of the Academy of Marketing Science*, 48(1), 113–128.
- Tang, M., Musunuru, K., Zong, S., & Thornton, J. (2024). Channel partner level marketing performance measurement via Shapley Value Regression. *Journal of Marketing Research*, 61(2), 289–307.
- Zenetti, G., & Klapper, D. (2021). Product assortment optimization for profit maximization in retail. *Marketing Science*, 40(2), 345–363.
- Zhang, H., & Li, Y. (2022). Data-driven partner relationship management and profitability in distribution networks. *Journal of Business Venturing*, 37(4), 106213.

Acknowledgment

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Nandhini, B. & Rajini, G. (2026). Analytics-Driven Channel Partner Profitability Enhancement and Product Mix Optimization. *International Journal of Social Impact*, 11(2), 010-019. DIP: 18.02.102/20261102, DOI: 10.25215/2455/1102102