

Strategic Campaign Restructuring and Multi-Level Segmentation

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Abstract— This research paper presents a comprehensive analytical study on strategic campaign restructuring and multi-level segmentation within a revenue intelligence ecosystem. The research was conducted during an industry-integrated business analytics engagement at Reviniti, a revenue intelligence platform developed by 1DigitalStack. The study investigates KPI-driven dashboard optimization, marketing attribution analysis, campaign ROI evaluation, cohort analysis methodologies, data validation procedures, and automated reporting frameworks. The implementation integrated Microsoft Excel, Google Sheets, Metabase, and the Reviniti platform to support analytical processing, visualization, and stakeholder reporting. The project identified major gaps in last-click attribution models and introduced structured multi-touch attribution methodologies for improved revenue allocation. Significant business outcomes included an 18% reduction in cost per acquisition, a 40% increase in dashboard adoption among non-technical stakeholders, a 31% improvement in lead-to-close ratio, and an over 80% reduction in reporting cycle duration. The paper demonstrates the practical significance of structured business intelligence systems, dashboard-centric architectures, and KPI-driven decision-making frameworks in optimizing marketing performance and operational efficiency.

Keywords: Revenue Intelligence, Strategic Campaign Restructuring, Multi-Level Segmentation, Business Analytics, Reviniti Platform, KPI Monitoring, Dashboard Optimization, Campaign ROI, Metabase, Attribution Modeling, Cohort Analysis, Reporting Automation.

I. INTRODUCTION

In the contemporary digital economy, organizations generate enormous volumes of transactional, behavioral, and operational data across multiple business systems. The ability to transform such large-scale datasets into actionable business insights has become a defining competitive differentiator for modern enterprises. Revenue intelligence systems play a critical role in enabling organizations to improve marketing efficiency, optimize sales pipelines, monitor customer acquisition performance, and strengthen strategic decision-making processes.

Revenue intelligence can be defined as the structured process of collecting, validating, analyzing, and visualizing revenue-related datasets to support strategic, tactical, and operational business decisions. Unlike traditional business reporting systems that primarily provide retrospective insights, modern revenue intelligence frameworks provide predictive and real-time analytical capabilities. These capabilities allow enterprises to proactively identify growth opportunities, optimize campaign structures, and allocate marketing resources more efficiently.

The research presented in this paper was conducted during an

industry-integrated business analytics engagement at Reviniti, a revenue intelligence platform developed by 1DigitalStack. The project involved strategic campaign restructuring, dashboard optimization, attribution model evaluation, KPI framework development, and reporting automation initiatives. The primary objective was to improve analytical accuracy, streamline reporting workflows, and increase dashboard usability for technical and non-technical stakeholders.

The project further focused on multi-level segmentation strategies, cohort analysis frameworks, and campaign ROI optimization techniques to strengthen data-driven decision-making capabilities within the organization. The implementation incorporated analytical tools such as Microsoft Excel, Google Sheets, Metabase, and Reviniti dashboards to support operational analytics workflows.

II. BACKGROUND THEORY AND LITERATURE REVIEW

Revenue intelligence represents an advanced extension of business intelligence that specifically focuses on revenue-generating activities and customer lifecycle analytics. Existing literature highlights the growing importance of analytical

frameworks capable of integrating CRM data, advertising platform metrics, customer acquisition information, and operational business KPIs into centralized analytical ecosystems.

Marketing attribution modeling forms one of the most critical analytical areas within revenue intelligence systems. Attribution models determine how credit for conversions and sales is distributed across marketing touchpoints. Common attribution models include last-click attribution, first-click attribution, linear attribution, and time-decay attribution. Although last-click attribution remains widely used due to implementation simplicity, it often over-credits final-stage channels while undervaluing earlier customer engagement activities.

Research studies in business analytics emphasize the importance of dashboard hierarchy, accessibility standards, and KPI-centric visualization frameworks. Effective dashboards reduce cognitive load by organizing analytical information into strategic, tactical, and operational layers. This principle guided the redesign and restructuring of Reviniti dashboards during the implementation phase.

Business intelligence literature also highlights the significance of data quality governance and validation frameworks. Duplicate CRM records, null values, inconsistent schemas, and reporting discrepancies can substantially affect analytical reliability and business decision-making accuracy. Therefore, structured validation workflows and benchmark reconciliation processes were integrated throughout the project lifecycle.

III. SYSTEM REQUIREMENTS

The implementation environment required a structured hardware and software ecosystem capable of supporting cloud-hosted analytics platforms, collaborative business intelligence workflows, and real-time dashboard monitoring systems.

Hardware Requirements:

- Minimum 8 GB RAM with 16 GB recommended for concurrent dashboard operations.
- Intel Core i5 processor or equivalent multi-core CPU.
- Broadband connectivity exceeding 10 Mbps for uninterrupted cloud platform access.
- Multi-monitor support for simultaneous dashboard visualization and data validation workflows.

Software Requirements:

- Microsoft Excel 365 for exploratory data analysis, pivot-table modeling, KPI calculations, and attribution analysis.
- Google Sheets for collaborative reporting and cloud-linked data synchronization.
- Reviniti Platform for KPI dashboards, campaign monitoring, and revenue intelligence workflows.
- Metabase v0.46 for SQL-based analytical querying and automated reporting.
- Google Chrome with DevTools for dashboard validation and API inspection.
- Windows 10/11 or macOS Monterey or later versions.

The Reviniti platform operated through role-based access management where stakeholders were assigned different levels of dashboard visibility and editing permissions depending on operational responsibilities.

IV. METHODOLOGY

The project adopted a structured five-phase analytical methodology aligned with Business Analysis Body of Knowledge (BABOK) practices and industry-standard business analytics workflows.

Phase 1 – Requirements Elicitation:

Stakeholder interviews were conducted to identify reporting gaps, KPI requirements, and dashboard usability issues. Existing analytical reports and visualization structures were audited to determine optimization opportunities. A requirements traceability matrix was prepared to align stakeholder objectives with analytical deliverables.

Phase 2 – Data Acquisition and Preparation:

Data was sourced from CRM exports, Google Analytics integrations, Meta Ads APIs, Google Ads APIs, and campaign performance datasets. Data preparation activities included schema normalization, duplicate record detection, null-value remediation, and benchmark validation against platform-native reporting systems.

Phase 3 – Analytical Processing:

Analytical processing involved layered methodologies including trend analysis, campaign-level drill-down analysis, cohort analysis, attribution comparison frameworks, and KPI modeling. Microsoft Excel pivot tables and advanced formulas were used for exploratory analytics while Metabase handled structured SQL-based reporting workflows.

Phase 4 – Visualization and Communication:

Dashboard structures were redesigned according to hierarchical information architecture principles. Executive dashboards displayed top-level KPIs while operational dashboards focused on campaign breakdowns and funnel progression analysis.

Phase 5 – Feedback and Iteration:

Analytical outputs underwent structured review cycles involving supervising analysts and business stakeholders. Feedback was documented through changelogs and iterative dashboard refinement processes.

V. SOFTWARE DESIGN AND ARCHITECTURE

The analytical ecosystem followed a dashboard-centric layered architecture pattern. Data originated from CRM systems, advertising platforms, and email marketing tools before passing through extraction, transformation, and validation workflows.

Source systems exported datasets through API integrations and scheduled CSV extraction pipelines. Data was staged within collaborative Google Drive environments and processed through Microsoft Excel and Google Sheets before being integrated into Metabase and Reviniti dashboards.

The Reviniti platform operated as a modular multi-tenant SaaS analytics system consisting of Revenue Tracking, Campaign Performance, Customer Acquisition, and Retention Analytics modules. Each dashboard module shared a common analytical data layer, enabling cross-functional KPI comparisons and unified reporting structures.

Metabase was connected to a PostgreSQL-based data warehouse containing normalized and pre-validated datasets. Native SQL queries and GUI-based question models were utilized for advanced reporting and dashboard automation workflows.

VI. IMPLEMENTATION DETAILS

Implementation activities focused on converting analytical designs into operational business intelligence deliverables.

Excel-Based Analytical Models:

The Revenue Waterfall Model enabled detailed breakdown

analysis of gross revenue, discounts, refunds, and net profitability across regions and product lines. Campaign ROI calculators automatically computed CPA, ROAS, ROI, and conversion efficiency metrics using parameterized templates and conditional formatting rules.

Cohort retention matrices were developed using COUNTIFS, INDEX/MATCH, and pivot-table frameworks to analyze customer retention trends across monthly cohorts. Attribution comparison models evaluated differences between last-click, linear, and time-decay attribution systems.

Dashboard Optimization:

Existing Reviniti dashboards were audited to identify redundant KPI cards and usability inefficiencies. Dashboard layouts were restructured to surface high-priority metrics above the fold while integrating comparative period selectors such as WoW, MoM, and QoQ comparisons.

Metabase Reporting:

Seven structured Metabase analytical questions were developed during implementation. These included geographic revenue analysis, cohort retention reporting, campaign ROI dashboards, lead velocity tracking, and attribution drill-down analytics.

Reporting Automation:

Google Sheets-linked reporting templates integrated with Google Slides significantly reduced manual reporting effort and improved reporting consistency across stakeholder teams.

Region	City - Category Contribution	Brand "X" Market Share	Budget Allocation
North	36.38%	64.09%	40.00%
Top	20.52%	62.21%	25.00%
Rest	15.87%	64.33%	15.00%
South	63.62%	58.30%	60.00%
Top	55.99%	65.34%	50.00%
Rest	7.62%	57.60%	10.00%
Grand Total	100.00%	61.46%	100.00%

Table 1: Regional contribution, market share, and budget allocation segmentation analysis.

VII. KPI TRACKING AND MONITORING

A structured KPI monitoring framework was implemented to

ensure continuous performance evaluation across marketing, revenue, and customer acquisition activities.

Revenue Growth Rate:

Monthly revenue monitoring identified a consistent 12% month-over-month uplift across major product lines during the project duration.

Campaign Conversion Rate:

Campaign-level analysis demonstrated an average conversion rate of 4.7% across active campaigns, with email marketing outperforming display advertising by 3.2 times.

Cost per Acquisition:

Excel-based CPA modeling identified an 18% reduction in acquisition cost following attribution restructuring and budget reallocation activities.

Customer Lifetime Value:

Cohort analysis frameworks identified a 23% improvement in projected customer lifetime value following onboarding sequence optimization.

Lead-to-Close Ratio:

Dashboard-based funnel analysis identified a 31% improvement in lead-to-close conversion ratios after CRM duplicate cleansing and validation improvements.

Marketing Attributed Revenue:

Multi-touch attribution models redistributed revenue contribution from over-credited paid search channels toward organic search and email marketing channels.

KPI monitoring combined automated threshold alerts with manual review cycles to support proactive business analysis and root-cause investigation.

VIII. TESTING AND VALIDATION

Rigorous testing and validation procedures were implemented throughout the project lifecycle to ensure analytical reliability and reporting accuracy.

Data Accuracy Validation:

All CRM-derived metrics were validated against source-system benchmark totals. Advertising platform metrics were reconciled against billing reports and platform-native analytics outputs. Discrepancies exceeding 2% triggered structured investigation workflows.

Dashboard Output Validation:

Dashboard outputs were tested against manually computed benchmark datasets across multiple representative business scenarios. Validation included edge cases such as campaigns with zero attributed conversions, multi-currency normalization workflows, and incomplete dataset periods.

Stakeholder Review Process:

All analytical deliverables underwent multi-stage review processes involving supervising analysts and senior business stakeholders. Feedback from each review cycle was integrated into subsequent dashboard and reporting iterations.

IX. RESULTS AND ANALYSIS

The implementation generated significant operational and analytical improvements across campaign performance monitoring, attribution analysis, dashboard usability, and reporting automation workflows.

Revenue Pattern Identification:

Trend analysis identified recurring 15–20% revenue spikes during mid-month campaign periods across multiple client accounts. These findings enabled proactive budget allocation and campaign optimization planning.

Attribution Model Gaps:

Last-click attribution analysis revealed that paid search contribution was overstated by approximately 38%. This finding supported the transition to multi-touch attribution frameworks for improved analytical accuracy.

Data Quality Improvements:

CRM audit activities identified 12% duplicate records and 8% critical null values within revenue-related fields. Structured validation protocols were implemented to address ingestion-stage data quality issues.

Dashboard Adoption Improvement:

Dashboard redesign and KPI restructuring activities increased

self-service dashboard adoption among non-technical stakeholders by approximately 40% within three weeks.

Campaign ROI Variance:

Email marketing campaigns generated nearly 6x ROI compared to approximately 1.8x ROI from display advertising campaigns. These insights informed future channel budget allocation strategies.

Reporting Cycle Reduction:

Automation of weekly reporting workflows reduced reporting duration from nearly four hours to approximately forty-five minutes, representing an over 80% operational efficiency improvement.

Platform	Spends	Sales	ROAS
Blinkit	10,67,51,394	67,02,49,474	6.28
Swiggy	10,75,67,210	62,35,84,700	5.8
Zepto	1,36,00,000	14,84,00,000	10.94

Table 2: Platform-wise spend, sales, and ROAS performance analysis.

X. MAJOR FINDINGS

The study demonstrated that structured campaign restructuring and multi-level segmentation significantly improve operational decision-making and marketing performance visibility.

The implementation of multi-touch attribution frameworks produced more balanced and realistic channel contribution analysis compared to traditional last-click attribution systems. Dashboard restructuring improved analytical accessibility and increased stakeholder engagement with self-service analytics systems.

The integration of automated reporting workflows reduced manual dependency while improving reporting consistency, accuracy, and scalability. Data validation frameworks substantially improved analytical reliability and reduced operational risk associated with reporting discrepancies.

XI. RECOMMENDATIONS AND FUTURE SCOPE

Future development initiatives should focus on predictive analytics integration, machine-learning-driven forecasting systems, and advanced automation workflows.

Recommended enhancements include:

- Development of predictive revenue forecasting models using regression and time-series analysis.
- Automated ETL pipelines using Python-based frameworks and API integrations.
- AI-assisted natural language analytics interfaces within dashboard environments.
- Advanced data quality scoring systems for proactive anomaly detection.
- Enhanced multi-touch attribution frameworks using historical conversion path analysis
- Scalable cloud-based reporting infrastructure for enterprise-wide analytics integration.

These enhancements could transition the analytical ecosystem from descriptive reporting toward predictive and prescriptive business intelligence systems.

XII. CONCLUSION

This research paper presented a comprehensive analytical study on strategic campaign restructuring and multi-level segmentation within a revenue intelligence ecosystem. The implementation demonstrated the practical significance of KPI-driven dashboards, attribution analysis frameworks, cohort analytics methodologies, and reporting automation systems in strengthening data-driven decision-making.

The project successfully integrated Microsoft Excel, Google Sheets, Metabase, and Reviniti dashboards to support analytical processing, campaign monitoring, and business intelligence workflows. Major quantified outcomes included an 18% reduction in acquisition costs, a 40% increase in dashboard adoption, improved lead-to-close conversion ratios, and a substantial reduction in reporting cycle duration.

The findings reinforce the importance of scalable analytics architectures, structured data governance practices, and stakeholder-centric dashboard design principles within modern revenue intelligence environments. Future developments involving predictive analytics and automated ETL systems can further enhance analytical scalability and strategic business value.

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