Sales and Marketing Report

This specification outlines the requirements for a report on Contoso's bicycle branch sales revenue and marketing.

### Resources

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| --- | --- |
| Assets | Link |
| Brand guideline | <Link> |
| Database | <Source> |
| Tenant | <Name> |
| Theme file | <Link> |

# **RESEARCH**

## User requirements

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| Goal | Problem | Requirements | Importance |
| Localize the experience to avoid the need to export data | Users primarily utilise the report for data export rather than for direct analysis. Consequently, end-users invest additional time organising the exported data to obtain necessary insights, which diminishes overall productivity. | The report should present all necessary information in a clear, user-friendly format to minimise reliance on Excel downloads, while still allowing users the option to export data. | Very high |
| Easy analysis focused on business goals | Users find the report confusing, overloaded with content, and unclear in how its pages help them make decisions. | The report should include only necessary information aligned with key metrics. Use simple visualizations, as many users may not be experts in data visualization. | Very high |
| Drive Decisions with Actionable Insights | Users have indicated that it is unclear how the report assists them in making informed decisions. They expressed interest in being more actively involved in actions to achieve their productivity goals; however, the current report does not facilitate this option. | The report should include interactive features that help users explore key business goals and collaborate with peers to achieve them. | High |
| Accessible to individuals with color vision deficiency | Some team members have said the report is hard to use because it's not colour-blind accessible. | Make sure the report is accessible for colour-blind readers and has adequate contrast. | Very high |
| Respect the ‘Revenue analysis’ page | Most users are very familiar with the 'Revenue analysis' page and rely on it to review data; they are concerned that the redesign may significantly change its content. | Maintain the current page layout and remove content unrelated to business goals. | High |
| Enable report views to support prescriptive, descriptive, and predictive insights | Current report views may focus primarily on historical data (descriptive), limiting the ability to:   * Identify actionable opportunities in real time. * Collaborate across departments to improve business metrics. * Forecast future performance based on current trends and inputs.   This gap reduces agility and makes it harder for teams to respond quickly to emerging insights or inefficiencies. | Design and implement report views that:   * Describe current and past performance clearly (descriptive). * Predict future outcomes based on trends, inputs, and models (predictive). * Prescribe recommended actions or decisions based on data (prescriptive). | High |
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## Business requirements

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| View | Goal | Key Business Questions | Requirements | Metrics |
| Executive view | Review Visual Summary & Trends | What are the key trends and changes in performance month-over-month? | * Quickly understand business direction through visual summaries. * Highlight key changes and trends in pipeline, conversion, and campaign performance. * Don’t use color-coded indicators to flag areas needing attention, instead use something else. |  |
|  | Assess Pipeline Health | How is the overall pipeline performing across won, lost, and open opportunities? | * Show total revenue segmented by status: Won, Lost, Open. * Display conversion rate from Open to Won. |  |
|  | Monitor Open Opportunities | Which open opportunities are most likely to convert, and what’s driving them? | * Segment open opportunities by risk stage: High, mid, low. |  |
|  | Evaluate Agent Performance | Which agents are performing best, and how effective are discounts in closing deals? | * Highlight top-performing agents based on conversion rate. * Display follow-up rate: % of open opportunities actively being worked. |  |
|  | Measure Campaign Effectiveness | Which campaigns—organic or paid—are driving the most revenue and conversions? | * Show number of opportunities generated by each campaign. * Display conversion rate per campaign. * Present cost per acquisition for paid campaigns. * Highlight top-performing campaigns by revenue impact. |  |
| Revenue Performance Monitoring | Track and evaluate monthly revenue performance against targets | Are we meeting our monthly revenue targets? | * Compare current month’s revenue vs. target. * Benchmark against previous months and same month last year to assess seasonality. | * Revenue (Revenue Won) * Revenue Target |
|  | Identify top-performing products and regions contributing to revenue. | Which products or regions contribute most to revenue in the current period? | * Identify revenue drivers for the current month and evaluate consistency across time. * Determine if current performance can offset previous shortfalls. | * Revenue (Revenue Won) |
| Weighted Revenue Analysis | Monitor Weighted Revenue in Pipeline | How much potential revenue is likely to close, and how much effort is needed from agents to reach targets? | * Compare current sales performance against monthly targets. * Display total weighted revenue from open opportunities. * Show how weighted revenue compares to the remaining gap in monthly targets. * Highlight which opportunities are most likely to close based on agent activity or weighted revenue amounts. | * Revenue (Revenue Won) * Revenue Target * Weighted Revenue (Open opportunities greater than 39 days open) |
|  | Accelerate Opportunity Closure via Discount Tool | How can we strategically apply discounts to high-potential opportunities to accelerate closure? | * Provide a form-like interface where users can:   + Select opportunities based on a range of weighted revenue.   + Choose an extra discount to apply.   + Optionally add a comment for the manager.   + Submit the selected opportunities and discount proposal to the manager.   + Notify the manager that their team is cleared to proceed with offering the discount to selected accounts. * Track which opportunities have received approval and are ready for agent follow-up. |  |
| Ad Investment Forecasting | Forecast Revenue Based on Ad Investment Inputs | If we increase ad spend, how much additional revenue can we expect to generate this month? | * Compare current sales performance against monthly targets. * Allow users to input:   + Selected social media channel.   + Manager selection, to factor in efficiency differences. * Use these inputs to dynamically update a forecast chart showing projected revenue. | * Revenue (Revenue Won) * Revenue Target * Revenue from Ads * ROAS |
|  | Submit Forecast for Budget Approval | Can this forecast be used to justify a budget request for additional ad spend? | * Provide a form-like/filter section where users can:   + Select opportunities based on forecasted revenue range.   + Input the proposed ad investment amount.   + Add an optional comment for the manager.   + Submit the proposal to the marketing team or manager for approval.   + Trigger a notification to inform the manager of the request and its projected impact. * Compare forecasted revenue against current shortfall to assess if the investment could close the gap. | * Revenue (Revenue Won) * Revenue Target * Forecasted Revenue from Ads |
|  | Analyze Social Media Channel Performance Over Time | Which social media channels are consistently converting ad spend into revenue efficiently? | * Show month-by-month breakdown of:   + Revenue generated from ads per channel.   + ROAS per channel. * Use side-by-side charts to compare revenue vs. ROAS trends. * Highlight top-performing channels and periods of low efficiency. | * Revenue from Ads * ROAS |
| Ad Spend vs. Budget Tracking | Track monthly ad spend and compare it against allocated budgets | Are we staying within budget across months? | * Show monthly ad spend per channel or campaign. * Display monthly budget allocation alongside actual spend. * Highlight over- and under-spending with visual indicators (e.g., red for over, green for under). * Segment spend by manager to identify who consistently stays within budget. * Enable export of budget reports for finance review. | * Revenue from Ads * ROAS |
|  | Identify Overspending by Channel or Campaign | Where is overspending happening, and is it justified by performance? | * Break down ad spend by channel and campaign. * Flag channels or campaigns that exceed budget thresholds. * Include ROAS (Return on Ad Spend) to evaluate if overspending is delivering results. * Allow filtering by manager to assess individual campaign oversight. |  |
|  | Calculate Budget Surplus or Deficit Year-to-Date | Do we have surplus budget to reallocate, or do we need to reduce future spend? | * Aggregate monthly budget vs. spend to calculate year-to-date surplus or deficit. * Show total surplus available for reallocation. * If deficit exists, display how much needs to be reduced in upcoming months. * Include a projection tool to simulate budget adjustments and their impact. |  |
|  | Visualize Current Month Budget Impact | Will current spending decisions help us stay on budget and meet revenue goals? | * Display a focused chart showing:   + Current month’s budget.   + Actual spend to date.   + Forecasted spend based on trends.   + Revenue impact from ad spend. * Highlight indicators to show budget status and performance alignment. * Add predictive alerts (e.g., “Projected overspend next month”). |  |
|  |  |  | * Enable export of budget reports for finance review. |  |
| Campaign Effectiveness & Opportunity Insights | Evaluate Ad Spend vs. Revenue and ROAS by Campaign Type | Which campaign types are delivering the best return on investment? | * Show ad spend, revenue from ads, and ROAS for each campaign type. * Visualize performance side-by-side to identify high-efficiency campaigns. * Allow filtering by Opportunity status (e.g., won, lost, open). * Highlight campaigns with low ROAS for potential optimization or reallocation. |  |
|  | Understand how campaigns influence opportunity conversion | Which campaigns are generating opportunities that convert to wins, and which are not? | * Show number of opportunities generated per campaign. * Display win/loss ratio for each campaign. * Highlight campaigns with high win rates to prioritize future investment. * Flag campaigns with high loss rates for review or adjustment. |  |
|  | Analyze Performance Factors Impacting Campaigns | What factors—agents, location, customer distribution, or social media platform—are influencing campaign success? | * Break down campaign performance by:   + Agent involvement (conversion rate).   + Ad focus location (geo-targeting effectiveness).   + Customer distribution location (where products are shipped).   + Social media platform (e.g., Facebook, Instagram, YouTube). * Show correlations between these factors and ROAS or conversion rate. * Allow users to filter and compare combinations to identify optimal targeting strategies. * Include a recommendation engine to suggest optimal campaign configurations. |  |
|  | Compare Campaign Metrics Year-over-Year | Are our campaigns becoming more effective over time? | * Display year-over-year comparison of:   + Ad spend   + Revenue from ads   + ROAS * Highlight growth or decline trends per campaign type. * Include percentage change indicators for quick assessment. * Enable export of campaign performance summaries for stakeholder review. |  |
| Product Performance & Inventory Planning | Analyze Product Performance by Characteristics | Which product characteristics are driving customer preferences and higher sales? | * Show product performance segmented by:   + Product type   + Size   + Color   + Number of units sold per order   + Cost   + Discounts applied * Allow comparison of individual products vs. category averages over time * Highlight top-performing combinations (e.g., small red items with discounts). |  |
|  | Compare Product Performance Across Inventory | How does each product’s performance compare to others in the same category or with similar traits? | * Display comparative charts showing sales volume and revenue per product. * Include filters to group products by shared attributes (e.g., all discounted items). * Highlight outliers—products that sell significantly more or less than peers. * Provide summary insights (e.g., “Products with X feature sell 30% more”). |  |
|  | Forecast Inventory Needs Based on Historical Demand | How many units should we order to meet demand for the current and upcoming months? | * Show historical sales data by product for previous months/years. * Display current warehouse stock levels. * Forecast future demand based on seasonality and trends. * Recommend reorder quantities to avoid stockouts or overstocking. * If possible: Include product bundling insights (e.g., “Customers often buy X with Y”). |  |
|  | Use Moving Average to Guide Inventory Decisions | Is the moving average a reliable indicator for future product demand? | * Calculate moving average of units sold per product over time. * Visualize moving average vs. actual sales to show stability or volatility. * Recommend reorder quantities based on moving average trends. * Flag products with rising or falling demand momentum. |  |
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## Technical requirements

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| Topic | Goal | Requirements |
| Performance Optimization | Avoid Custom Visuals | * Use only standard visuals to ensure compatibility and reduce rendering time. |
|  | Limit Visible Elements | * Keep the number of visible elements per page to 20 or fewer, including:   + Data visualizations   + Shapes   + Images   + Textboxes   + Any other UI components |
|  | Control Visual Interactions | * Define only the necessary interactions between visuals. * Deactivate any interactions that do not support the user’s task or add value. |
|  | Optimize Filtering Experience | * Avoid excessive use of slicers on the canvas. * Use the filter pane when multiple filters are needed to maintain layout clarity and performance. |
| Maintainability & Scalability | Simplify Bookmark Usage | * Avoid using bookmarks unless they are very simple to configure and can be clearly documented for future reference. |
|  | Use Native Navigation | * Avoid complex navigation systems, especially those relying on bookmarks. * Prefer native navigation features to ensure consistency and ease of maintenance. |
|  | Organize DAX Measures Logically | * Group DAX measures according to the metrics or categories they support. * This makes it easier to locate, understand, and update them when needed. |
|  | Document Measures Clearly | * Add a description to each measure explaining its purpose and usage. * This helps future contributors understand the logic without needing to reverse-engineer it. |
|  | Avoid Overlapping Visuals | * Do not overlap visualizations unless absolutely necessary for aesthetic reasons. * Overlapping elements are hard to align, don’t scale well, and can complicate future edits. * Use them moderately and intentionally, with clear documentation if applied. |
| Data Integrity & Source Consistency | Use only trusted internal data sources | * Use only internal data sources to fulfill business metric requirements. All metrics needed for reporting must be available from the existing data infrastructure. * Avoid using external data sources to maintain consistency, security, and ease of maintenance. |
| Deployment Environment & Access Surface | Limit report access to approved platforms | * Users must access reports exclusively via Power BI Service and Power BI Mobile within the designated Power BI tenant. Other surfaces (e.g., embedded, desktop-only, or external portals) are not supported for this solution. |
| Data Security & Confidentiality | Protect sensitive report data | * All reports must be labeled as highly confidential, as they contain sensitive information and allow data export. |
| Cost Efficiency in Solution Design | Minimize platform-related expenses | * Use built-in Power BI features only. Avoid any pay-to-use or premium functionalities that incur additional licensing or subscription costs. |
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## Design requirements

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| Topic | Goal | Requirements |
| Brand Consistency in Report Design | Typography | * Use only the ‘Aptos’ font family across all report elements. * Limit font usage to no more than 5 distinct font sizes to maintain visual hierarchy and simplicity. |
|  | Color Scheme | * Apply only the colors defined in the provided theme. * Avoid using custom or unapproved colors to ensure brand alignment. |
|  | Logo Placement | * Include the company logo on every report page, positioned consistently (e.g., top-left or bottom-right corner). |
|  | Layout & Spacing | * Maintain consistent padding and margins across visuals and text elements. * Align content to a grid system if available to support clean layout structure. |
|  | Visual Style | * Avoid excessive use of shadows, gradients, or effects unless specified in the brand guidelines. * Use consistent iconography and visual styles that match the brand tone. |
|  | Feedback & Status Indicators | * Provide visual feedback for user actions (e.g., actionable indicators, selection highlights). * Use tooltips and hover states to offer additional context without overwhelming the layout. |
|  | Optimize Filtering Experience | * Use brand-approved terminology for labels, titles, and tooltips. * Avoid abbreviations or internal jargon unless clearly defined. |
| Accessibility for Visual Impairments | Color Contrast Compliance | * Use color combinations that meet WCAG 2.1 AA standards for contrast ratios (minimum 4.5:1 for normal text, 3:1 for large text). * Avoid relying solely on color to convey meaning—use icons, labels, or patterns to reinforce visual cues. |
|  | Support for Color Blindness | * Avoid using red/green or blue/purple combinations that are difficult to distinguish for color-blind users. * Use color-blind safe palettes and test visuals with simulation tools to ensure clarity. |
|  | High Contrast Mode Compatibility | * Design visuals to be compatible with Power BI’s high contrast mode. * Avoid overlapping elements or transparent layers that may become unreadable in high contrast settings. |
|  | Accessible Visual Elements | * Ensure all text is legible and scalable, with font sizes that adapt to zoom settings. * Use clear borders and spacing to separate elements, especially in dense layouts. |
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# **DEFINE**

## Personas

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| Role | Focus | Requirements | Report tips |
| Executive Leadership | Strategic insights, high-level performance, business direction | * Summarized KPIs and trends * Forecasts and goal tracking * Actionable insights without deep data exploration | * Use dashboards with clear visual summaries, minimal clutter, and callouts for risks or opportunities. * Mobile view * Color-blind and Color- contrast Compliance |
| Analysts / Data Scientists | Deep data exploration, pattern recognition, hypothesis testing | * Raw data access, detailed breakdowns * Ability to slice and dice data across dimensions * Export capabilities for further modeling | * Conversion metrics, usage trends * Provide flexible filtering * Detailed tables * Ability to drill down into specific product lines or campaigns |
| Sales & Marketing Teams | Campaign performance, lead conversion, customer segmentation | * ROAS, ad spend vs. revenue * Opportunity pipeline tracking * Regional or channel-based performance | * Use visuals that highlight trends, top-performing segments, and actionable next steps. |
| Operations / Supply Chain Managers | Inventory, logistics, fulfillment efficiency | * Stock levels, demand forecasting * Product movement trends * Alerts for overstock or stockouts | * Include moving averages, historical comparisons, and predictive indicators. |
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## Report structure

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| --- | --- | --- |
| Page | Sub-page | Personas |
| Executive View |  | * Executive Leadership * Sales & Marketing Teams * Operations / Supply Chain Managers |
| Revenue Performance Monitoring |  | * Sales Team * Analysts / Data Scientists |
|  | Weighted Revenue Analysis | * Sales Team * Analysts / Data Scientists |
| Ad Investment Forecasting |  | * Sales & Marketing Teams * Analysts / Data Scientists |
|  | Campaign Effectiveness & Opportunity Insights | * Sales & Marketing Teams * Analysts / Data Scientists |
|  | Ad Spend vs. Budget Tracking | * Marketing Team |
| Product Performance & Inventory Planning |  | * Operations / Supply chain Managers |
|  |  |  |