**Project Design Phase**

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| **Date** | **19-06-2025** |
| **Team ID** | **LTVIP2025TMID48265** |
| **Project Name** | **Strategic Product Placement Analysis: Unveiling Sales Impact with Tableau Visualization** |
| **Maximum Marks** | **2 marks** |

**Solution Fit**

The **Problem–Solution Fit** phase ensures that the solution developed is genuinely solving real-world issues faced by the intended users. In the context of this project—**Strategic Product Placement Analysis: Unveiling Sales Impact with Tableau**—this phase confirms that the visual analytics and dashboards created align with the business problems and decision-making needs of stakeholders such as retail managers, merchandisers, and business analysts.

This phase ensures:

* Alignment of dashboard KPIs with business goals
* Understanding user behaviour and decision flows
* Improvement in user adoption through visual intuitiveness
* Early validation of insights before scaling deployment

**1. Target Customer Segments**

Identifying the stakeholders using the Tableau dashboards is crucial to customizing the solution:

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| **Customer Type** | **Description** |
| Store Managers | Need insights on sales performance by product, time, and region |
| Merchandisers | Responsible for product placement, pricing strategies, and promotions |
| Business Analysts | Analyse trends and extract actionable intelligence |
| Executive Team | High-level view of KPIs to make strategic decisions |

**2. Problem Statement (As-Is Situation)**

Retail organizations often face challenges in optimizing product placement strategies due to fragmented data and lack of insightful visuals.

**Challenges Identified:**

* Data is stored in siloed systems or spreadsheets, not centralized
* Lack of visibility into product sales performance by category, location, or display
* Delayed decision-making due to manual reporting
* No visual analytics to evaluate the impact of promotions or placements
* Inability to identify underperforming SKUs quickly

**Key Problems:**

* No unified dashboard combining product, sales, and promotional data
* Inconsistent reporting standards across teams
* Limited ability to compare performance across time and geography

**3. Current Workaround (Before Tableau Solution)**

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| **Existing Practice** | **Limitation** |
| Manual Excel-based reports | Time-consuming, prone to error, lacks interactivity |
| Static graphs in PowerPoint | Do not allow drill-down or real-time filtering |
| Email threads with CSV files | Data gets outdated quickly, lacks contextual visualization |
| Basic point-of-sale reports | Transactional and lacks strategic overview |

**4. Proposed Solution (To-Be State)**

The proposed solution—**Strategic Product Placement Analysis with Tableau**—uses dynamic dashboards and charts to reveal patterns in product sales influenced by placement strategies.

**Core Features Include:**

* **Sales Performance Dashboard:** Visuals comparing sales by category, product, and geography
* **Heat Maps of Product Zones:** Identify high-traffic product zones across stores
* **Time Series Analysis:** Analyze sales trends before and after promotional campaigns
* **Cross-SKU Performance View:** Highlight bestsellers and underperformers
* **Interactive Filters:** Enable users to slice data by date, region, store, product type
* **Promotional Impact Visualization:** Overlay promotions with sales to analyze ROI
* **Drill-Down Charts:** Users can click on charts to explore underlying data (e.g., by product or region)
* **Exportable Reports:** For offline access and presentations

**5. How the Solution Solves the Problem**

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| **Problem** | **Tableau Feature That Solves It** |
| No unified reporting system | Centralized dashboard integrating all relevant datasets |
| Poor visibility of trends | Interactive charts with time-series and performance filters |
| Static and outdated visuals | Real-time dashboards with live connections to data sources |
| Limited SKU performance insights | Drill-downs and bar charts on SKU-wise sales and comparisons |
| Promotional ROI not tracked | Layered views showing campaign periods vs. sales spikes |

**6. Solution Adoption Channels**

* **Tableau Desktop & Server:** Used to build and host interactive dashboards
* **Browser Access via Tableau Server:** End users access dashboards on-demand
* **Scheduled Reports:** Dashboards can be exported and scheduled to email recipients weekly or monthly
* **Role-Based Views:** Customize dashboard access based on department (e.g., merchandising vs. finance)

**7. Solution Validation**

The Tableau dashboards were tested against business requirements and validated with end-users:

* **Data Accuracy:** Cross-verified with raw CSVs and SQL backend
* **Filter Functionality:** Slicers and filters were tested for responsiveness and correctness
* **Performance:** Dashboards load efficiently within acceptable timeframes
* **Insight Delivery:** Heatmaps and performance KPIs provided actionable insights to stakeholders

All validations confirm that the dashboards successfully support strategic decision-making.

**Purpose Alignment Recap**

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| **Benefit** | **How Tableau Dashboard Achieves It** |
| Real-time decision support | Dashboards provide interactive filtering and instant access to key KPIs |
| Enhanced sales strategy | Sales trends and visual patterns reveal opportunities for better product placement |
| Increased visibility | Executives and managers have a unified view of operations and strategy |
| Reduce manual reporting | Automated dashboard updates remove the need for repetitive Excel work |
| Facilitate collaboration | Cloud access allows teams to view, share, and discuss the same dashboard views |

**Problem–Solution Fit Canvas for Tableau Sales Impact Dashboard**

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| **Section** | **Description** |
| Customer Segments (CS) | Store Managers, Merchandisers, Analysts, Executives |
| Jobs/Problems (J&P) | Track sales, assess placement effectiveness, identify underperforming SKUs |
| Triggers (TR) | Low sales from key zones, ineffective promotions, missed KPIs |
| Emotions Before/After (EM) | Before: Unclear insights, reactive decisions; After: Proactive strategy based on visuals |
| Available Solutions (AS) | Spreadsheets, static graphs—non-interactive, delayed insights |
| Customer Constraints (CC) | Large dataset volume, time-sensitive decisions, limited data literacy |
| Behavior (BE) | Manual reporting, guesswork in product placement |
| Channels (CH) | Excel, internal emails, in-store POS data exports |
| Root Causes (RC) | Disconnected systems, lack of visual tools, data not centralized |
| Your Solution (SL) | Tableau dashboards integrating sales, placement, promotions, and product metadata |

This confirms that the Tableau solution is solving a critical and measurable business problem with high alignment to user needs.