DATAFORGE CONSULTING

A PROJECT PROPOSAL TO CANADIAN WILLS INCORPORATED ON UNDERSTANDING SALES DRIVERS AND CUSTOMER BEHAVIOR FOR BUSINESS GROWTH.

JUNE 2025

About DataForge

DataForge Consulting is a leading data-driven solutions provider based in Calgary, Alberta. We specialize in transforming raw data into actionable insights for businesses new to the world of data analytics. We help companies make sense of their existing data to uncover trends, measure financial performance, and identify opportunities for growth. Our goal is to empower organizations to unlock the full potential of their data by providing tailored solutions that support smarter decisions and long-term profitability.

The DataForge Team

Our team is composed of highly skilled professionals, each bringing unique expertise to the table:

Oladayo Olarinde (Team Lead & Project Manager): A seasoned business strategist, Oladayo oversees the full project lifecycle, ensuring alignment between data strategy and business objectives. He coordinates task delivery, fosters team communication, and manages stakeholder engagement. His strong understanding of retail operations helps ensure that all insights are actionable and tied to measurable outcomes.

Eno Udobi (Data Engineer): Eno specializes in sourcing, cleaning, and transforming raw data into structured, analysis-ready formats. She builds reliable data pipelines and models, ensuring the team works with accurate and high-quality datasets. Her expertise in SQL and data wrangling tools is foundational to all analytical processes.

Karimah Akarigidi (Data Analyst): Karimah focuses on uncovering trends and generating insights through descriptive and diagnostic analysis. She identifies patterns in sales, customer behavior, and seasonal activity, and translates findings into clear, data-driven narratives that support informed business decisions.

Louiza Berrachedi (BI Developer): Louiza develops interactive dashboards and reports using Power BI, making complex data accessible and visually compelling. She focuses on clear presentation of KPIs such as profit margins, sales performance, and campaign effectiveness, to support decision-making at all levels.

Daniel Olukorede (Business Analyst): Daniel acts as the bridge between business needs and data solutions. He defines analytical objectives, gathers business requirements, and shapes KPIs that guide the team's work. His role ensures that the insights produced are relevant and strategically impactful.

Frances Usifoh (Documentation Specialist): Frances is responsible for compiling the team's findings into cohesive reports and presentations. She translates technical results into business language and leads the development of client-facing deliverables, including recommendations and marketing strategies informed by the data.

SOME NOTABLE PROJECTS

Project 1: "Turning Data into Sales – Optimizing Product Mix for Growth"

Client: MapleNest Living (Home décor and furniture e-commerce startup, Toronto)

Business Problem: MapleNest was experiencing inconsistent sales and rising product return rates. They had inventory and sales data but no clear insight into which products were driving profits or where losses were occurring.

Solution Provided: DataForge Consulting conducted a full sales and product analysis using historical transaction and return data. We built an interactive dashboard to identify high-margin products, seasonal demand trends, and regions with poor conversion rates. Our team recommended bundling slow-moving products with bestsellers and narrowing product focus in low-performing regions.

Results Achieved: Within 3 months, MapleNest reduced returns by 18%, improved average order value by 22%, and increased net profit by 15% by focusing marketing efforts on high-performing categories.

Project 2: "Campaigns That Convert – Driving Smart Marketing with Data"

Client: WellVida Wellness Co. (Subscription-based health products, Calgary)

Business Problem: WellVida was spending heavily on digital campaigns but had no clarity on which channels were actually driving subscriptions or retaining customers.

Solution Provided: Our team merged subscription data with campaign sources and customer behavior to create a campaign performance dashboard. We analyzed customer retention by acquisition channel, calculated customer lifetime value, and provided a segmentation model for future targeting.

Results Achieved: WellVida cut its marketing spend by 25% while increasing customer retention by 30%. They now use our model to target their top 3 most profitable customer segments, leading to a 40% boost in campaign ROI.

Project 3: “From Gut Instinct to Data-Driven – Bringing Clarity to Retail Decisions”

Client: PrairiePicks General Store (Multi-location retail shop in Alberta towns)

Business Problem: PrairiePicks was making inventory and staffing decisions based on intuition, resulting in frequent stockouts, overstaffing during low-traffic periods, and missed sales opportunities.

Solution Provided: DataForge Consulting conducted a time-series analysis of foot traffic, sales volume, and product turnover across all locations. We delivered an operational dashboard that included predictive staffing suggestions and automated low-stock alerts based on historical patterns.

Results Achieved: The client reduced overstock inventory by 35%, improved on-shelf availability by 20%, and reported smoother store operations. Customer satisfaction scores rose significantly, and weekly sales improved by 12% within the first quarter of implementation.

1. UNDERSTANDING THE BUSINESS (STRATEGY)

Canadian Wills is a retail company that offers a wide range of office supplies, home and office furniture and consumer technology products. The company combines product variety and customer convenience, serving individuals, families, small businesses and corporate clients across the country through physical locations and an online platform.

Canadian Wills has built a loyal customer base and achieved a steady growth by responding to evolving customer needs. However, the company has yet to embrace a data-driven approach to managing and optimizing its operations. While Canadian Wills collects valuable data across its sales, customer interactions and product lines, it currently lacks the tools and processes required to transform this data into actionable insights.

This gap presents an opportunity for Canadian Wills to enhance its business strategy through business intelligence and data analytics. By adopting a more analytical, data-informed approach,

the company can improve its understanding of customer behavior, product performance, and overall financial health. This will help Canadian Wills make more informed strategic decisions aimed at boosting profitability, increasing operational efficiency and elevating the customer experience, positioning the company for sustained growth in a competitive retail landscape.

2. UNDERSTANDING THE DECISIONS THAT CANADIAN WILLS NEEDS TO MAKE.

At this discovery stage, Canadian Wills must identify and prioritize key business decisions that will enhance profitability and support strategic growth. By leveraging data-driven insights, the company can better predict trends and refine its operations. The critical decisions include:

- **Identifying High-Performing Products and Segments:** Determine which product categories and customer segments (e.g., Corporate, Home Office) generate the highest sales and profit. This will help enable the company to focus on marketing, inventory and resource efforts where they are most effective.

- **Segmenting Customers by Location and Purchasing Behavior:** Analyze customers' data to understand purchasing patterns and geographic distribution. These insights will help tailor retention and loyalty strategies to different customer groups across the country.

- **Using Customers Shipping Preferences to Plan Future Marketing Campaigns:** Assess the shipping modes preferred by customers to guide future marketing and service offerings, ensuring alignment with customer expectations and preferences.

- **Prioritizing Regional and Customer Targeting Through Sales Trend Analysis:** Examine historical sales patterns to identify seasonal peaks, regional performance variations and declining periods. This will support more precise planning for marketing, inventory, and pricing strategies.

3. KEY DECISIONS THIS PROJECT WILL SUPPORT THROUGH DATA.

This project will support Canadian Wills in making the following key business decisions through data-driven analysis:

- **Determine the Most Profitable Product Categories:** Identify which product categories deliver the highest value based on sales, quantity sold, and profit. This will guide decisions on product promotion, inventory investment, and potential phase-outs.

- **Refine Customer Segment Targeting:** Analyze customer and segment data (e.g., Corporate, Consumer, Home Office) to determine which groups contribute most to revenue and profit. Insights will support more personalized engagement and retention strategies.

- **Optimize Discount and Pricing Strategies:** Evaluate the impact of discounting on profitability to establish informed pricing guidelines that balance competitiveness with margin preservation.

- **Enhance Customer Retention and Loyalty Efforts:** Use behavioral and demographic data to understand customer preferences and buying habits, enabling more effective loyalty programs and retention initiatives.

- **Improve Regional Sales and Shipping Performance:** Assess regional sales trends to identify growth opportunities and evaluate shipping performance to streamline delivery methods and enhance customer satisfaction.

4. DECISIONS, PROCESSES AND KPIS FOR CANADIAN WILLS

Decision 1: Identifying High-Performing Products and Customer Segments

Process Steps:

1. **Group data by product category and customer segment**
   Organize the dataset using fields such as Product Category, Sub-Category, and Customer Segment.

2. **Aggregate sales and profit for each group**
   Calculate total Sales and Profit for each product category and customer segment.

3. **Calculate profit margins**
   Determine how much profit is generated per dollar of sales to measure efficiency.

4. **Visualize and rank results**
   Use tables or charts to highlight and rank top-performing product categories and segments.

KPI: Profit-Margin (%)

Description: Measures how efficiently a product category or customer segment converts sales into profit.

Calculation: Profit Margin = (Profit / Sales) × 100

Link to Process Output: Calculated in Step 3 and used in Step 4 to rank categories and segments, even when sales volumes differ.

Decision 2: Segmenting Customers by Location and Purchasing Behavior

Process Steps:

1. **Collect and Clean Data:**
   Use fields like Product Name, Quantity, Customer Segment, and Region. Remove duplicates and handle missing values.

2. **Define Segmentation Objectives:**
   Aggregate transactions by region and customer segment to prepare analysis.
3. **Rank Products and Segments by Quantity Sold:**
   Sort products and customer groups based on total quantity sold to identify top performers.
4. **Analyze Purchasing Behavior Across Regions:**
   Compare purchase volumes across regions to uncover demand trends and geographic preferences.

KPI: Total Quantity Sold by Customer Segment and Region

Description: Measures product demand across customer segments and regions.

Calculation: Total Quantity Sold = SUM(Quantity)

Link to Process Output: Aggregated in Step 2 and used in Step 3 and 4 to rank segments and identify regional preferences.

Decision 3: Understanding Customer Shipping Preferences for Marketing Planning

Process Steps:

1. **Collect and Clean Data:**
   Extract fields such as Order ID and Ship Mode; remove duplicates and inconsistencies.
2. **Group and Count Orders by Shipping Mode:**
   Use grouping functions or pivot tables to count how often each shipping mode is selected.
3. **Identify the Most Frequently Used Shipping Mode:**
   Determine which shipping option is used most often; a key indicator of customer preference.
4. **Analyze Usage Across Regions or Segments:**
   Break down preferences by Region or Customer Segment to see how choices vary.

KPI: Preferred Shipping Mode

Description: Reveals the shipping method most selected by customers, informing logistics and marketing strategies.

Calculation: Preferred Shipping Mode = Shipping Mode with the Highest Order Count

Link to Process Output: Determined in Step 2 and contextualized in Step 4 to support strategic decision-making.

Decision 4: Analyzing Monthly Sales Trend

Process Steps:

1. **Collect and Clean Data:**
   Gather Order Date and Sales fields. Address any missing values or duplicates to ensure accuracy.
2. **Visualize Sales Trends:**
   Create line charts or bar graphs to show total sales per month, highlighting patterns and anomalies.
3. **Group Data by Time Periods:**
   Convert Order Date into a monthly or quarterly format and group sales accordingly.
4. **Generate Insights from Trends:**
   Interpret the results to identify peak sales periods, low seasons, and seasonal trends that influence sales performance.

KPI: Monthly Sales Trend

Description: Tracks total sales over time to uncover growth trends, seasonality and areas of concern.

Calculation: Monthly Sales = SUM(Sales) grouped by Month (based on Order Date)

Link to Process Output: Derived from Step 2 and 3 and used in Step 4 to guide forecasting, inventory and promotional planning.

Summary of Decisions, Processes, and KPIs

Decision	Process	KPI
Identifying High-Performing Products and Segments	Group and analyze sales and profit data by product category and customer segment to identify top performers.	Profit-Margin (%)
Monitoring and Acting on Monthly Sales Trend	Analyze monthly sales data to identify growth patterns, seasonal peaks, and slowdowns for better planning.	Monthly Sales Trend (Total Sales by Month)
Using Shipping Preferences to Plan Future Marketing Campaigns	Group and count orders by shipping mode to identify the most frequently selected option and assess regional differences.	Preferred Shipping Mode
Segmenting Customers by Location and Purchasing Behavior	Analyze customer transactions by region and segment to uncover demand trends and high-performing customer groups.	Total Quantity Sold by Segment and Region

HOW EACH KPI IS CALCULATED

Profit Margin %:

Profit Margin= (Profit / Sales) ×100

Identifies how efficiently sales are converted into profit across categories and segments.

Total Quantity Sold:

Total Quantity=∑(Quantity)

Measures total units sold per product, customer segment or region to highlight demand patterns.

Preferred Shipping Mode:

Identified as the shipping method with the highest number of orders.

Preferred Mode = Ship Mode with Highest Count Order

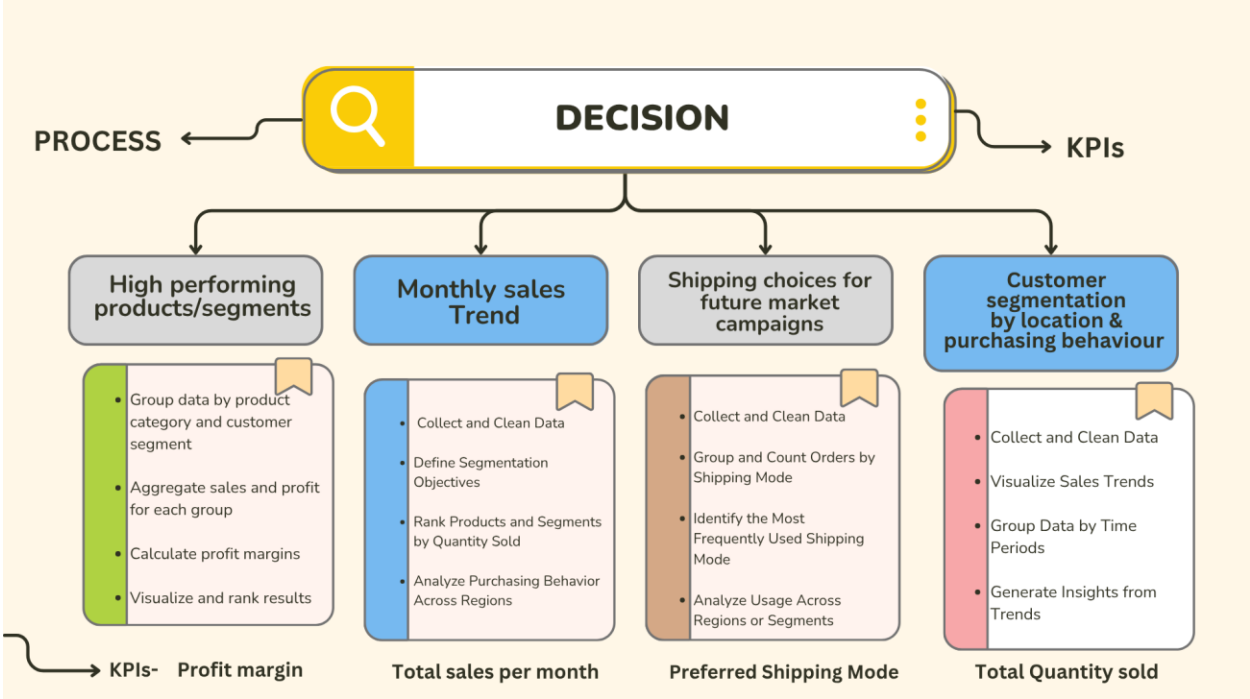
Reflects customer delivery preferences and supports logistics planning.

Monthly Sales Trend:

Monthly Sales=∑(Sales) grouped by Month (Order Date)

It helps detect seasonal peaks, sales peaks, and forecast future revenue trends.

PROCESS MAP



Process Owner – Data Forge, Canadian wills

Process Goal – To Analyse customer purchasing patterns across regions and segments, identify high demand area ,support targeted marketing inventory planning and customer engagement

Roles – Business Analyst, Data Analyst ,Project manager , BI Developer , Documentation Specialist, Data Engineer

Resources- BI Tools , Data management software,Historical order data set,