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Growth as a Service

The Definitive Guide to
Managing Your eCommerce Data

Contents

Introduction

Data is now far more important for eCommerce businesses than it used to be. Mainly because of the sheer volume of first-party data generated in this industry. This data, when used correctly, provides deep insights into customers' behavior, preferences, and values. And when brands know their most valuable customers, they can strategically invest in them to increase profitability.

For example, by accurately forecasting Customer Lifetime Value (CLV), brands can allocate marketing resources more efficiently, focusing on high value cohorts and minimizing time and resources on less profitable segments.

This targeted approach extends to marketing channels as well. With insights on where these valuable customer cohorts originate, brands can prioritize the channels that yield the highest-quality customers and increase the ROI.

Furthermore, insights into how top-tier customers interact with the online store can guide adjustments in website design, product offerings, and user experience, ensuring that the store resonates with its most profitable audience.

However, using these insights is easier said than done. Traditional data management methods often fall short when the environment is so dynamic.

This eBook aims to bridge that gap, offering a comprehensive guide to effectively managing eCommerce data for informed, data-driven decision-making.

The Current State of eCommerce Data Management

Many eCommerce businesses collect vast amounts of data but fail to fully leverage its potential. For most, data is simply a tool for reporting, providing a snapshot of performance rather than driving actionable insights. Some companies take it a step further by analyzing top-level metrics like conversion rates, but their insights are often shallow, failing to explore the deeper reasons behind changes.

Only a select few brands truly embrace data at every level, using it to inform even the smallest decisions. These data-driven businesses are the ones poised for long-term success, as their ability to adapt and optimize is unmatched.

Here are some telling statistics about the current state of data management:

58%
Rely on gut feelings for business decisions

90%
Businesses are unable to properly succeed in the Data Economy

72%
Believe analytics report can help improve customer experience

84%
lack the resources to fully use their data

33%
businesses reported they trusted their data enough to derive value from it

41%
of businesses do not segment their customers based on data insights

Why Data Management is Crucial for eCommerce

Inadequate data management can derail an eCommerce business. If data is inconsistent, unorganized, or outdated, analytics can become misleading, causing brands to make misguided decisions.

For example, if a company tracks customer behavior but doesn't manage their data properly, they might wrongly attribute a decline in sales to a particular marketing channel when, in reality, it stems from a product issue or fulfilment delay.
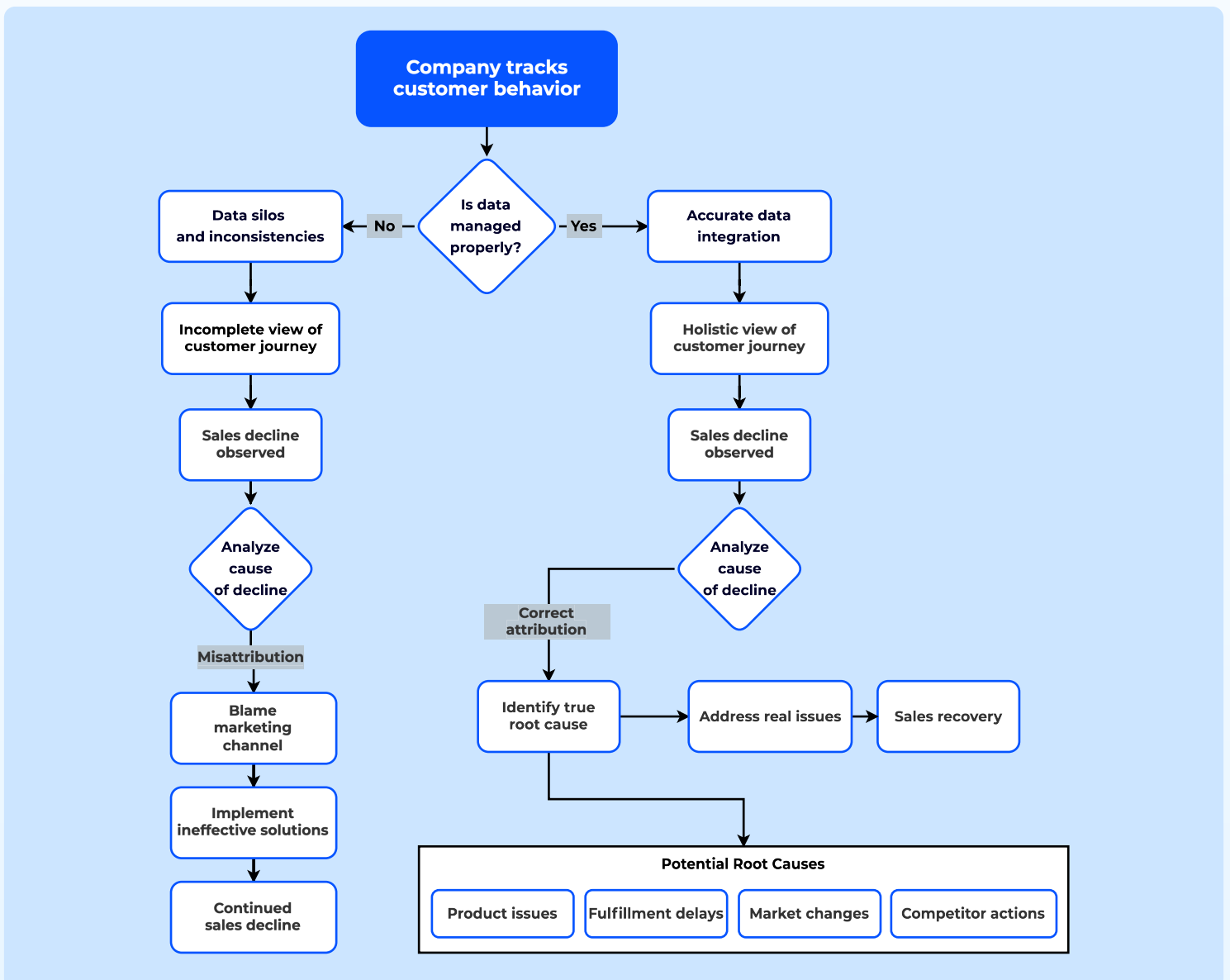
On the other hand,
real-time, accurate data allows brands to react quickly, resulting in better customer experience, refined marketing strategies, and increased profitability.

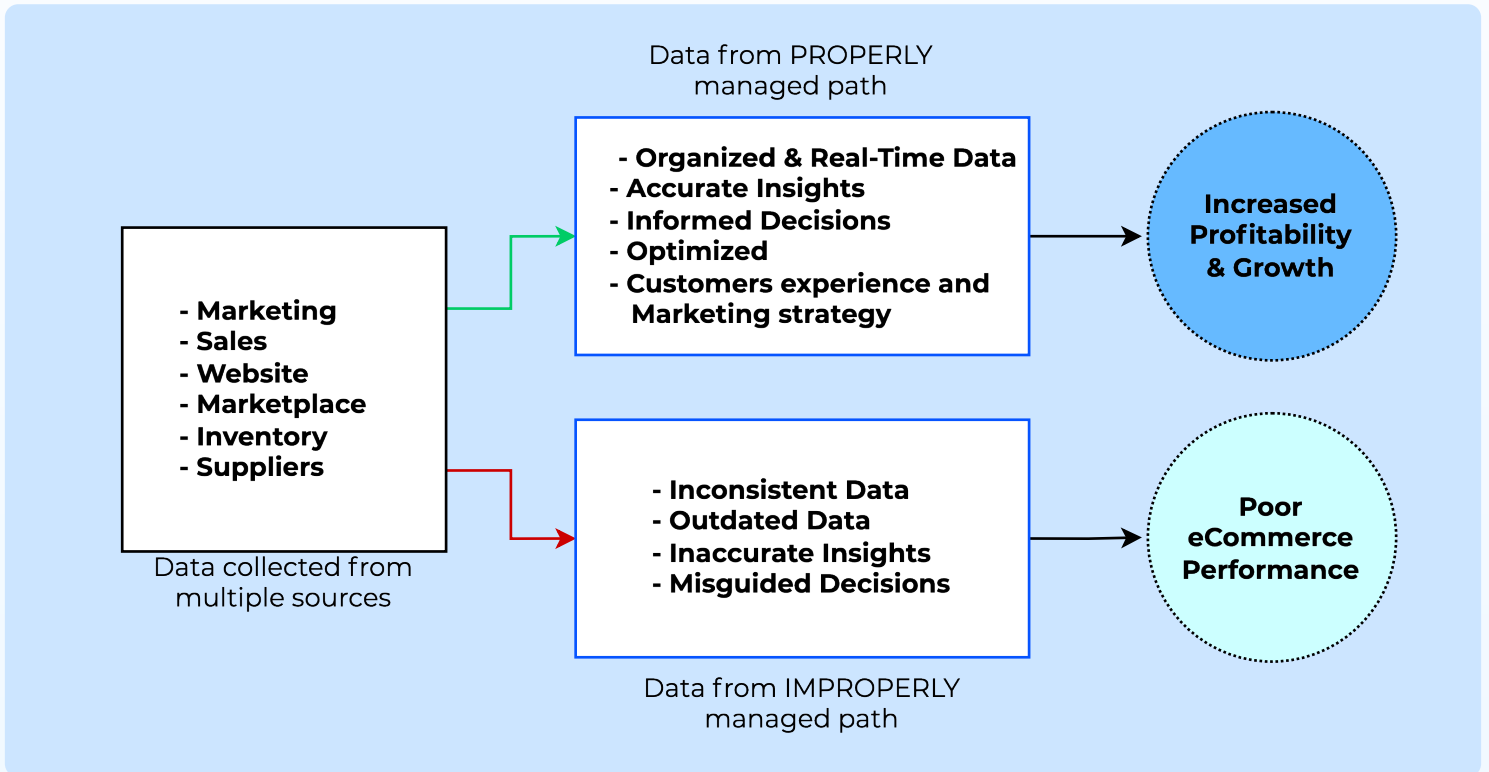With accurate data management, brands can find valuable insights that helps them beat the competition.

Data from PROPERLY
managed path

- **Marketing**
- **Sales**
- **Website**
- **Marketplace**
- **Inventory**
- **Suppliers**

Data collected from
multiple sources

- **Organized & Real-Time Data**
- **Accurate Insights**
- **Informed Decisions**
- **Optimized**
- **Customers experience and Marketing strategy**

Increased Profitability & Growth

- **Inconsistent Data**
- **Outdated Data**
- **Inaccurate Insights**
- **Misguided Decisions**

Poor eCommerce Performance

Data from IMPROPERLY
managed path

The Big Data Challenges in eCommerce

Businesses have come to realize that, despite its allure, handling data in the eCommerce sector is far from simple.

The 4Vs of Big Data—volume, velocity, variety, and value—are poised to transform eCommerce, providing unprecedented insights and unparalleled competitive advantages. However, it's the 5th V—veracity—that presents the greatest challenge. Ensuring the accuracy and reliability of data is critical because, without it, all analyses and insights are rendered ineffective.

Maintaining data veracity is the foundation of effective eCommerce analytics, and eCommerce businesses face several challenges in dealing with this:

See next page for detailed diagram

■ **Manual Data Collection:**
Relying on manual processes is time-consuming, error-prone, and inefficient. Human errors can easily creep in, leading to inaccurate data that undermines insights.

■ **Inconsistent Data Formats:**
Data from different sources often comes in various structures and formats, complicating efforts to integrate and analyze it efficiently.

■ **Volume and Complexity:**
The sheer amount of data generated across multiple channels—sales, marketing, fulfillment—makes management a daunting task. As data grows, organizing and making sense of it becomes even harder.

■ **The Headcount Problem:**
Finding skilled talent to manage and analyze eCommerce data is a challenge. No single person can handle the entire data stack, leading to inefficiencies and a skills gap in managing complex data systems.

| Data Source | → | Ingestion | → | Transformation | → | Storage | → | Descriptive Analytics | → | Prescriptive Analytics | → | Data-driven Actions |

Alternative

Headcount

| Data Engineer | Data Scientist | ML Engineer |

Data Stack

| CDP | Transform | Data warehouse | BI Reporting | Attribution |
| Extract and Load | | | Web Analytics | ML Ops |
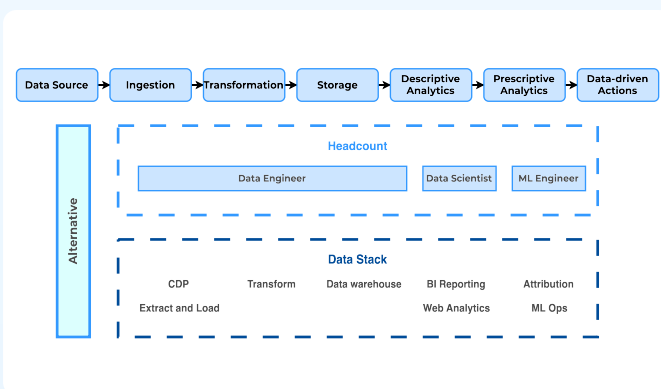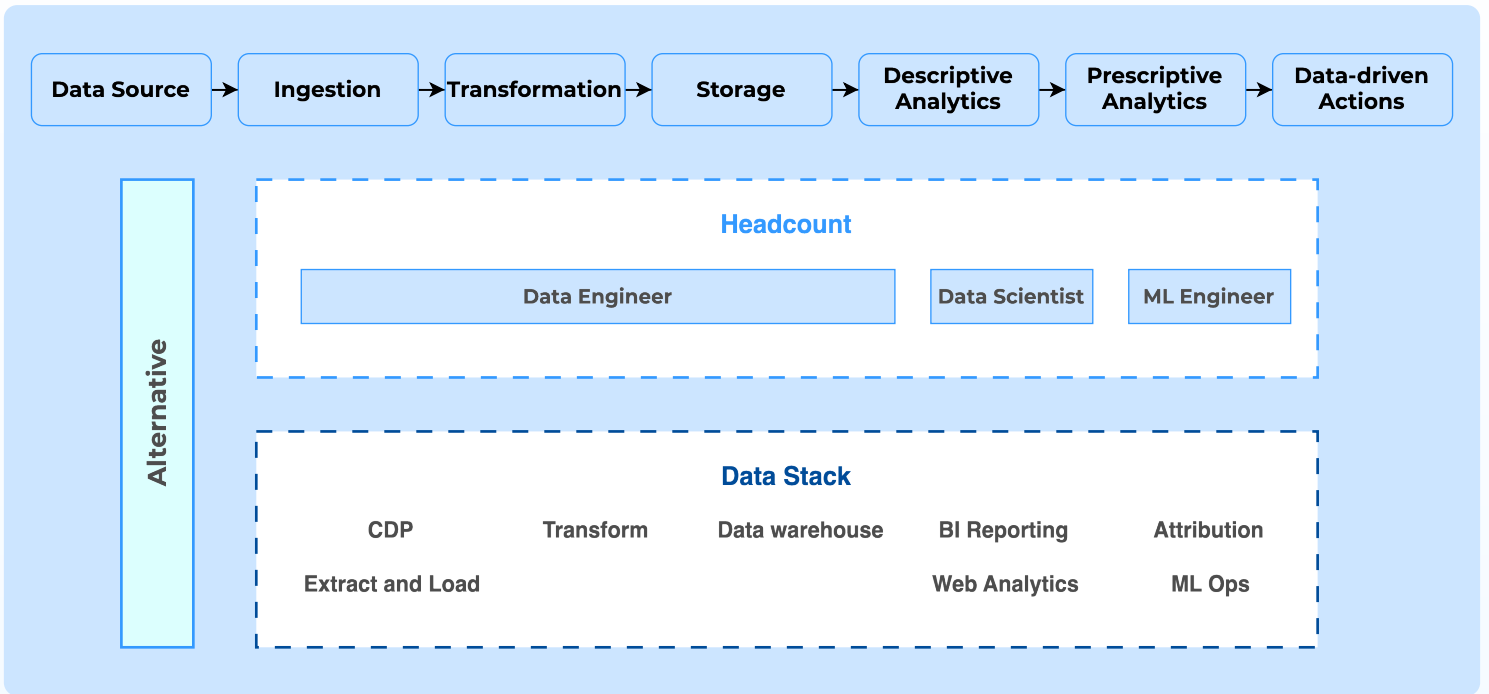
The Shift Towards Automated Data Extraction

The rapid advancements in technology now allow businesses to automate complex processes like data extraction in ways that were once unimaginable.

71%

of businesses are actively investing in AI-driven automation solutions

54%

of companies report improved data accuracy after automating their extraction processes

43%

of businesses claim they've seen faster decision-making thanks to real-time data automation

68%

of eCommerce brands state that automating data collection has reduced operational costs

Automated solutions offer faster, more accurate results, freeing up valuable resources for other areas of the business.

eCommerce businesses that automate data extraction will consistently sell more because they can react faster. Their decisions will be more likely to be successful, thanks to the real-time factor, allowing businesses to optimize operations without delays. Those sticking to manual methods risk falling behind, missing key sales opportunities, and losing market share.

On the analytics side, automated data extraction virtually eliminates human error, resulting in cleaner, more reliable data. This directly impacts insights, leading to more precise and actionable outcomes that can drive business growth.

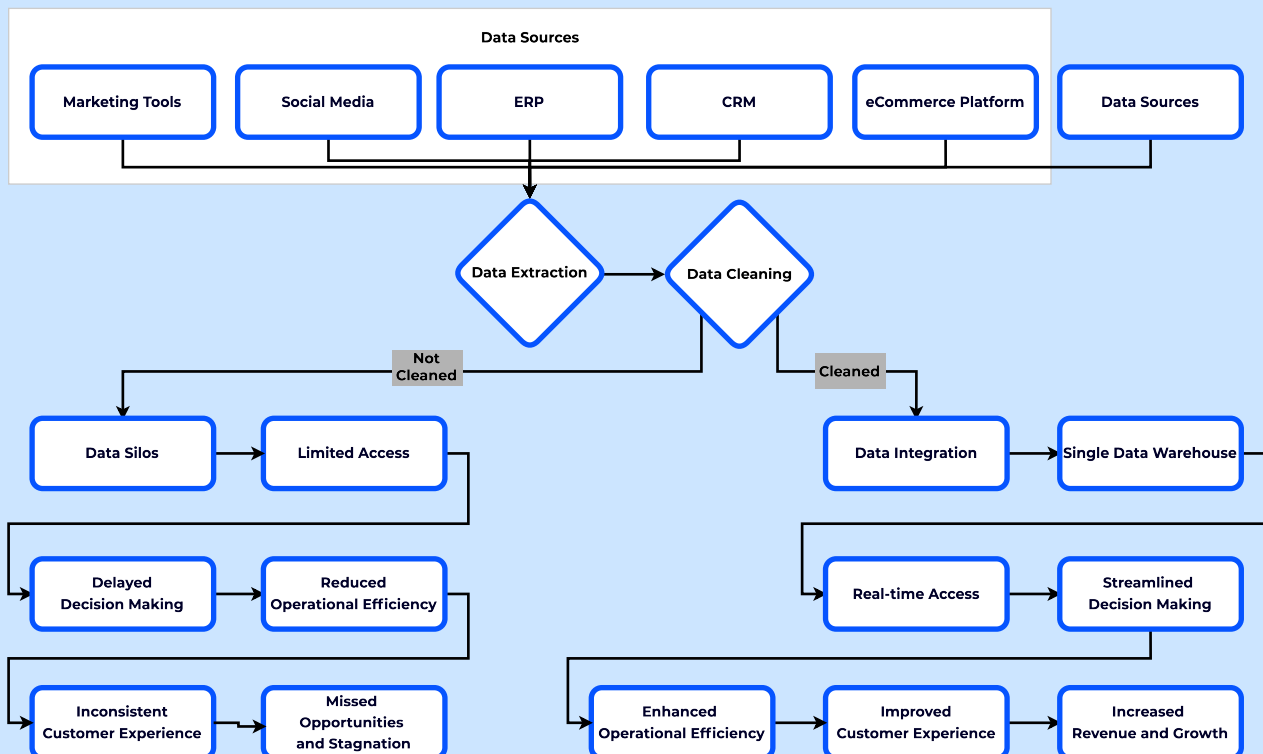# Cleaning, Organizing and Storing eCommerce Data

Importance of Clean eCommerce Data

Clean data is the foundation of successful eCommerce operations. Without it, even the most advanced analytics tools won't yield meaningful insights.

- Boosts the accuracy of customer insights, helping businesses tailor sales and marketing strategies. accurately.

- Improves inventory management by predicting demand more

- Prevents costly errors caused by duplicate, incomplete, or outdated information.

Simply put, unorganized data = bad decisions.

Data Sources

| Marketing Tools | Social Media | ERP | CRM | eCommerce Platform | Data Sources |

Data Extraction → Data Cleaning

Not Cleaned

Data Silos → Limited Access

Delayed Decision Making → Reduced Operational Efficiency

Inconsistent Customer Experience → Missed Opportunities and Stagnation

Cleaned

Data Integration → Single Data Warehouse

Real-time Access → Streamlined Decision Making

Enhanced Operational Efficiency → Improved Customer Experience → Increased Revenue and Growth
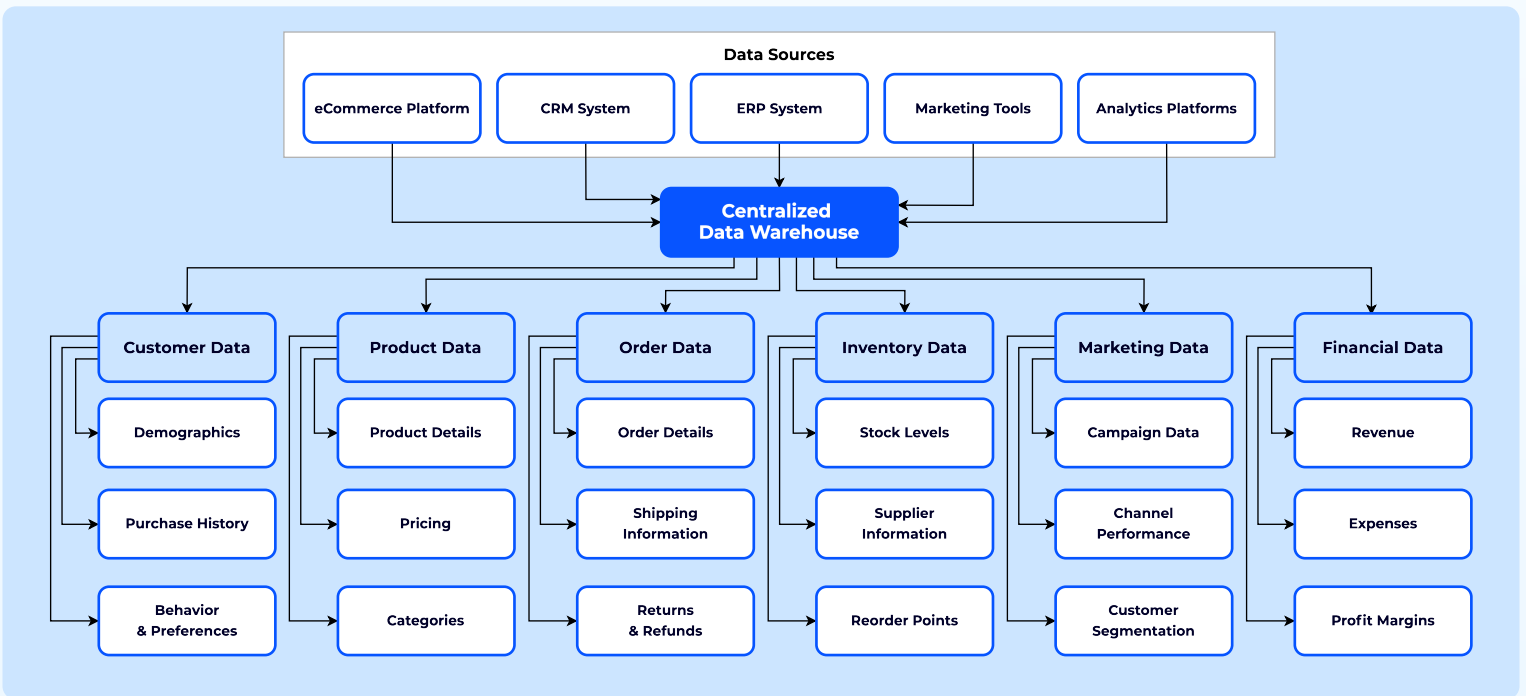
# Best Practices for Effective eCommerce Data Cleaning

To get meaningful insights from eCommerce data, it's clear that step one is to clean it.

First, it's imperative to understand how clean data is organized at a single source of truth — it would look something like the visual below :

Now, let's say a business is using multiple channels for marketing—Google Ads, Facebook Ads, email campaigns—and they are tracking conversions. If the data from these sources is not properly organized, the attribution could be completely off.

Data Sources

eCommerce Platform	CRM System	ERP System	Marketing Tools	Analytics Platforms

Centralized Data Warehouse

Customer Data	Product Data	Order Data	Inventory Data	Marketing Data	Financial Data
Demographics	Product Details	Order Details	Stock Levels	Campaign Data	Revenue
Purchase History	Pricing	Shipping Information	Supplier Information	Channel Performance	Expenses
Behavior & Preferences	Categories	Returns & Refunds	Reorder Points	Customer Segmentation	Profit Margins

The business might think a sale came from Google, but it was actually driven by an email campaign. With unorganized and unclean data, their marketing spend decisions will be based on inaccurate insights, leading to suboptimal ROI.
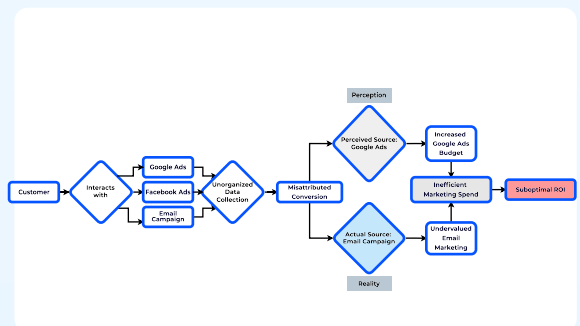
See next page for detailed diagram
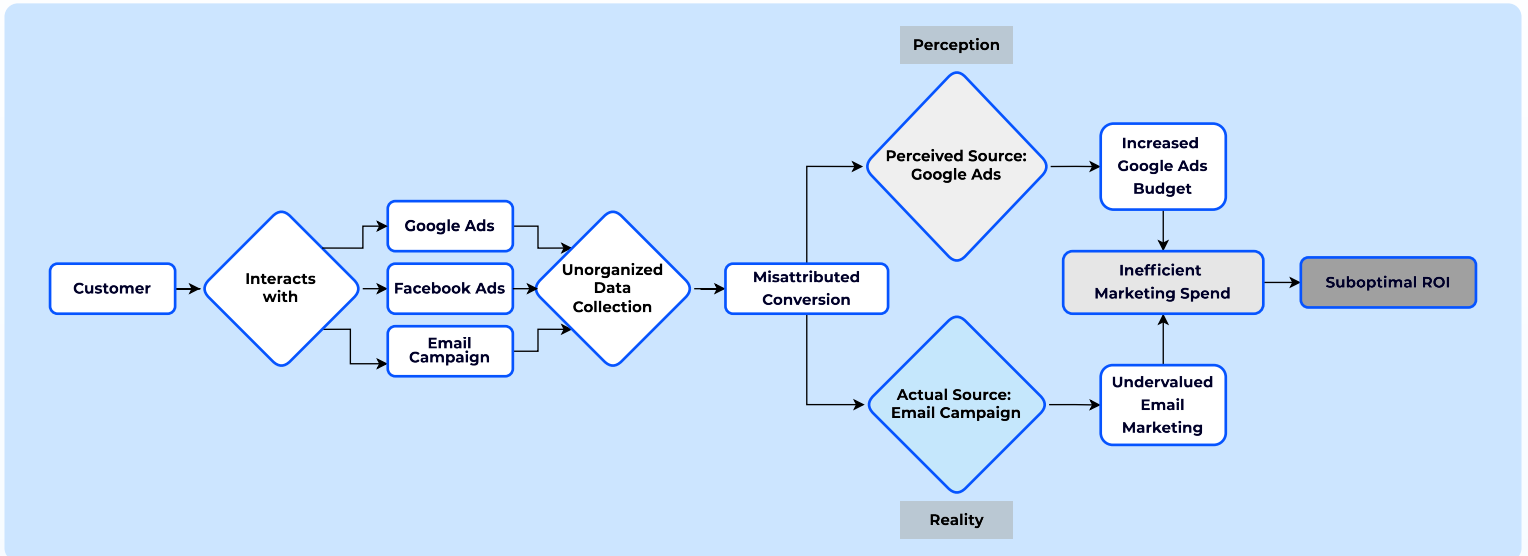
Here are some best practices that eCommerce businesses can implement right away:

Use Automated Tools: Instead of relying on spreadsheets, which can easily become messy, invest in an eCommerce analytics tool that automates data cleaning. These tools not only gather data but ensure that it's well-structured, updated, and ready for use in reporting.

Avoid Manual Data Handling: Relying on manual processes increases the risk of errors. Automating your data management—like syncing sales and marketing data automatically—ensures real-time accuracy and prevents human mistakes.

Centralize Your Data: Pulling data from multiple sources like Shopify, Google Analytics, and Meta can get overwhelming. Use a tool that integrates all your platforms into one dashboard so you can see all the data in a unified place. This reduces inconsistencies and allows for cleaner, more manageable data streams.

Regularly Monitor Data Quality: Even when businesses automate, it's important to monitor the data regularly to ensure there are no issues like duplicates or missing information. Set up automatic alerts to notify you if something goes wrong so they don't have to spend time searching for errors.

Prioritize Real-Time Data: Make sure the tools provide real-time data syncing. With up-to-date information, businesses can make faster decisions, which is crucial for staying competitive.

Outsource When Needed: If managing data becomes too complex, consider outsourcing data management to experts who specialize in eCommerce analytics. They can help ensure the data stays clean and usable without the business needing to handle every detail.

By following these steps and using eCommerce data automation tools, businesses can make their data work for them—giving them clearer insights into their customers and better control over their business outcomes.

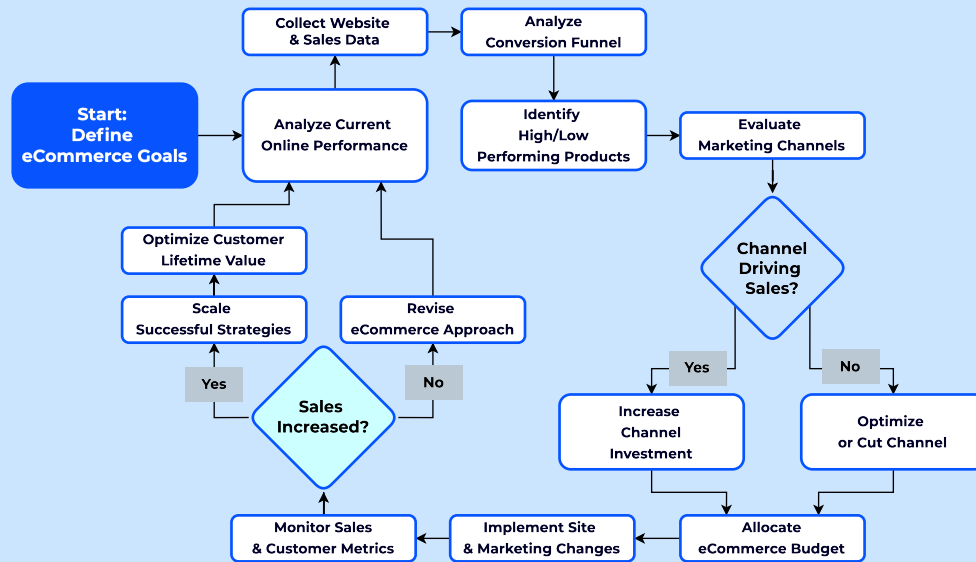# Using Unified Data for eCommerce Business Growth

Unified analytics has emerged as a critical tool for businesses seeking to optimize their operations and drive profitability. By connecting disparate data points along the shopper journey, eCommerce businesses can gain a deep understanding of their customers' behaviors, preferences, and pain points. This holistic approach to data analysis allows businesses to decrease costs, increase profitability, and align their strategies with the concept of the Critical Path.

The Critical Path represents the most efficient and effective route to creating a loyal, profitable customer base. It is the connection between customer desires and the company's offerings, aimed at establishing the shortest, fastest, and most profitable path to customer satisfaction and business success.

In the context of eCommerce, staying on track with the Critical Path requires continuous measurement, evaluation, and optimization of business strategies.

To effectively navigate the Critical Path, eCommerce businesses must first establish a robust system for measuring the status quo. This involves collecting and analyzing data from various touch points throughout the customer journey, including website traffic, conversion rates, average order value, customer acquisition costs, and lifetime value. By establishing these baseline metrics, companies can identify areas of strength and weakness in their current operations.

The next crucial step is to distinguish between strategies that are driving revenue and those that are underperforming. This process of evaluation allows businesses to allocate resources more efficiently, focusing on initiatives that yield the highest return on investment. By doubling down on the most effective, revenue-driving strategies, companies can accelerate their growth and improve overall profitability.

Flowchart 1

- **Start: Define eCommerce Goals** → Analyze Current Online Performance
- Collect Website & Sales Data → Analyze Conversion Funnel
- Analyze Conversion Funnel → Identify High/Low Performing Products → Evaluate Marketing Channels
- Evaluate Marketing Channels → **Channel Driving Sales?**
  - Yes → Increase Channel Investment
  - No → Optimize or Cut Channel
- Increase Channel Investment / Optimize or Cut Channel → Allocate eCommerce Budget
- Allocate eCommerce Budget → Implement Site & Marketing Changes → Monitor Sales & Customer Metrics
- Monitor Sales & Customer Metrics → **Sales Increased?**
  - Yes → Scale Successful Strategies → Optimize Customer Lifetime Value
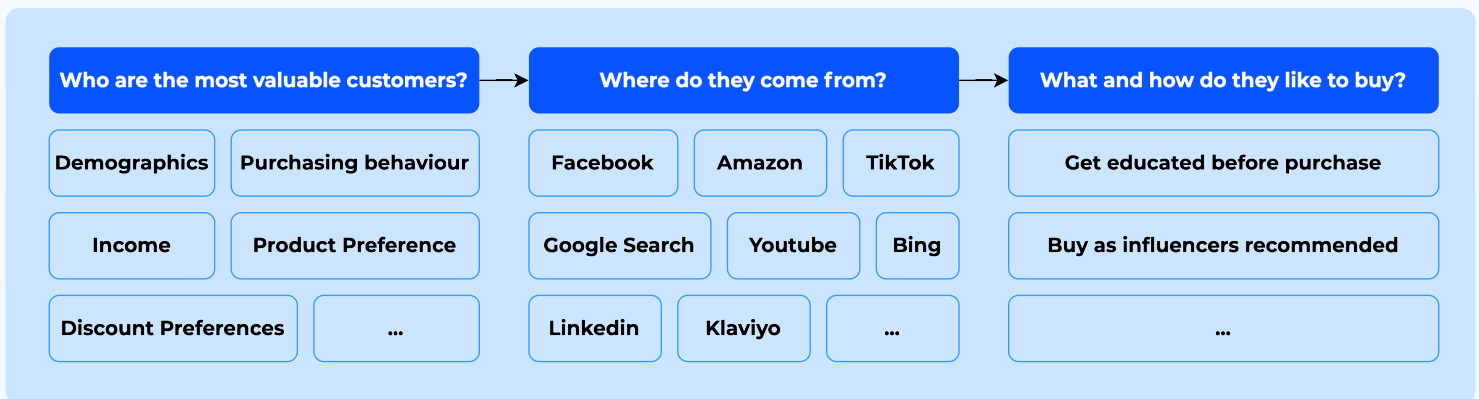 - No → Revise eCommerce Approach

However, as online businesses expand and markets become increasingly complex, traditional approaches to performance measurement and decision-making have become inadequate. The sheer volume of data generated across multiple channels and platforms has made it challenging, if not impossible, for eCommerce businesses to rely on conventional analytics methods.

In this data-rich environment, making decisions without comprehensive insights is akin to guessing, with a low probability of success given the multitude of variables at play. Conversely, when businesses have access to insights on all relevant variables and can track changes over time, they can identify patterns and trends that inform more accurate decision-making.

Flowchart 2

- **Critical Path**
  - **Revenue ↑**
    - Web Traffic ↑
    - Conversion Rate ↑
    - Average order value ↑
  - **Cost ↓**
    - Customer acquisition cost ↓
    - Overhead ↓
- **! Budget Constraint** — Optimize profit from cohorts with high LTV
  - Marketing channels
  - Website design
  - Product Combinations
- Measurement
- Recommendation
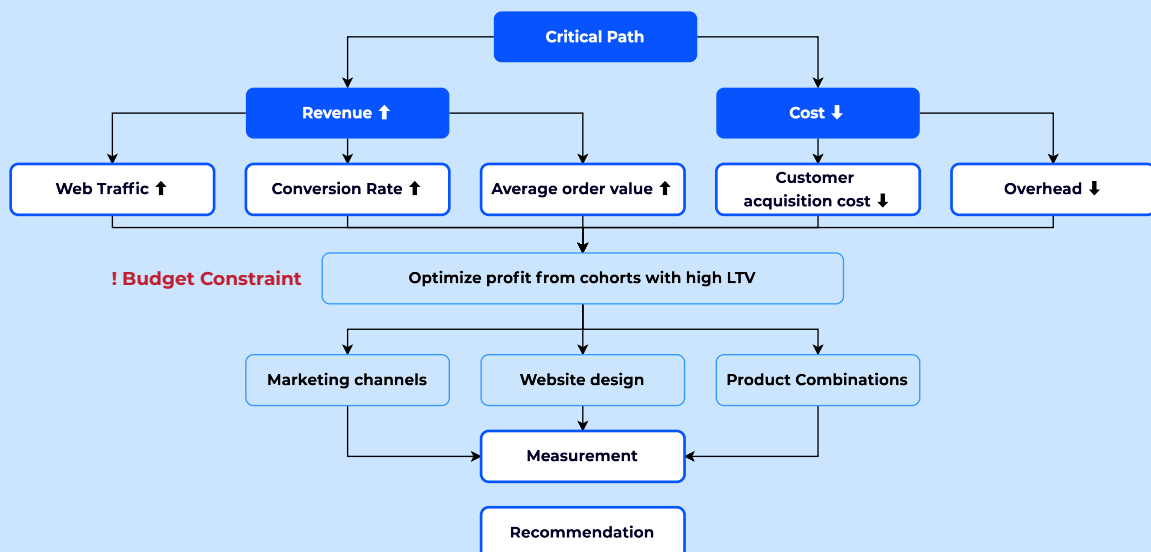
Unified analytics provides the framework for collecting, integrating, and analyzing data from different sources, offering a holistic view of business performance. This approach enables companies to identify their most valuable customers, understand their origins, preferences, and purchasing behaviors. With these insights, businesses can tailor their strategies to maximize customer lifetime value and acquisition efficiency.

Using unified data for eCommerce business growth, companies can move beyond guesswork and base their decisions on empirical evidence. This data-driven approach significantly increases the probability of successful outcomes, as it is grounded in the actual behaviors and preferences of the business's customer base.

| Who are the most valuable customers?		Where do they come from?			What and how do they like to buy?
Demographics	Purchasing behaviour	Facebook	Amazon	TikTok	Get educated before purchase
Income	Product Preference	Google Search	Youtube	Bing	Buy as influencers recommended
Discount Preferences	...	Linkedin	Klaviyo	...	...

Go from Big Data to Big Buys with the Right Data Management Process

eCommerce businesses have one powerful asset at their disposal: their own data. Whether you choose to use it or leave it untouched, this data can drastically change your trajectory of growth.

From understanding customer behavior to refining marketing strategies, data informs every aspect of decision-making. Every time you shop at a grocery store, browse a marketplace, or encounter an ad on Meta or Google, data is driving those interactions. The key is learning how to manage this data effectively so you can turn insights into action.

There are countless systems and processes available for eCommerce data management. They vary in complexity and functionality, but they all share a common goal: to provide brands with more structured, accurate, and actionable information about their customers' behaviors.

Without a robust data management process, businesses risk missing out on valuable insights that could significantly impact their sales and growth potential. The right data management process not only improves accuracy but also empowers businesses to scale faster and more efficiently.
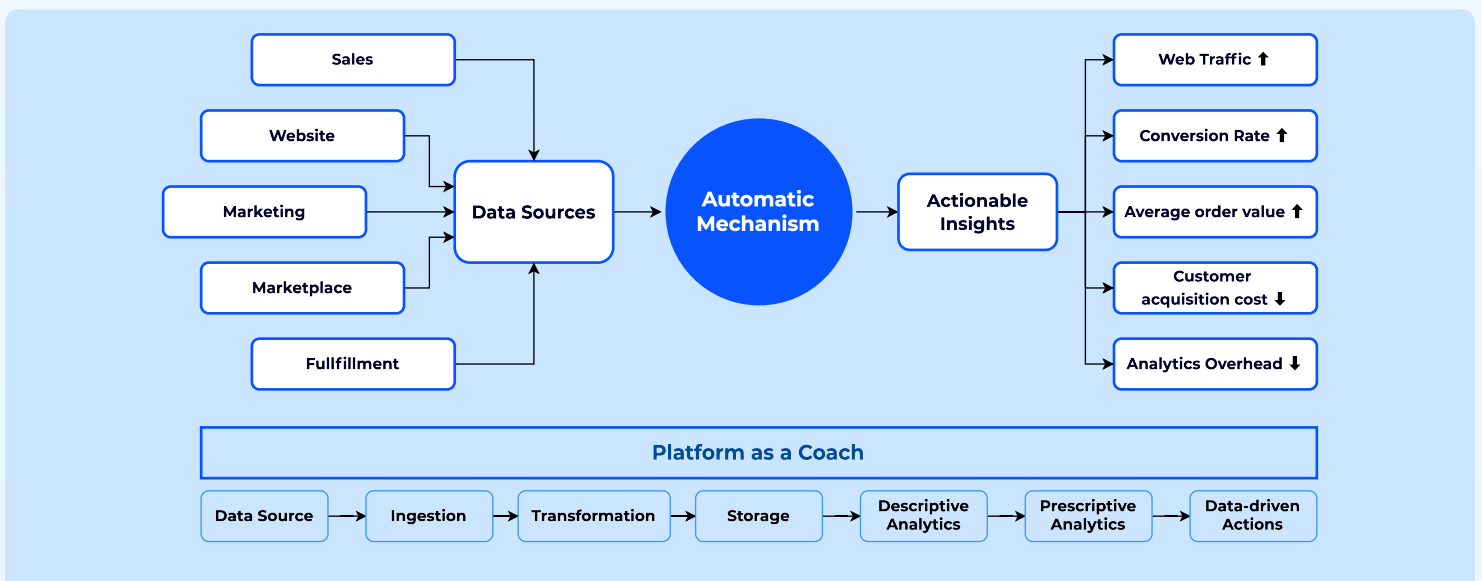
How Graas Helps Solve Your Data Problems

Data management can often feel overwhelming, especially for businesses that lack the right tools or expertise. This is where Graas comes in, offering solutions tailored to the specific challenges eCommerce brands face.

Whether your issue lies in gathering data or analyzing it, Graas has the tools and expertise to help.

Automated Data Management with Graas' Extract:

Managing data from multiple eCommerce platforms manually can be tedious and error-prone. Graas' Extract simplifies this process by automating the entire data extraction process.

Whether you're gathering sales data from Shopify, marketing insights from Facebook, or ad performance from Google, Extract consolidates everything into one streamlined, standardized view. All your critical eCommerce data is automatically downloaded and funneled to your preferred destination, whether that's Google Sheets, Excel, or your internal database.

This ensures you get accurate, consistent data in a format that's ready for analysis—without spending valuable time manually pulling reports. With Extract, you can focus on what truly matters: analyzing the data and making data-driven decisions to scale your business.
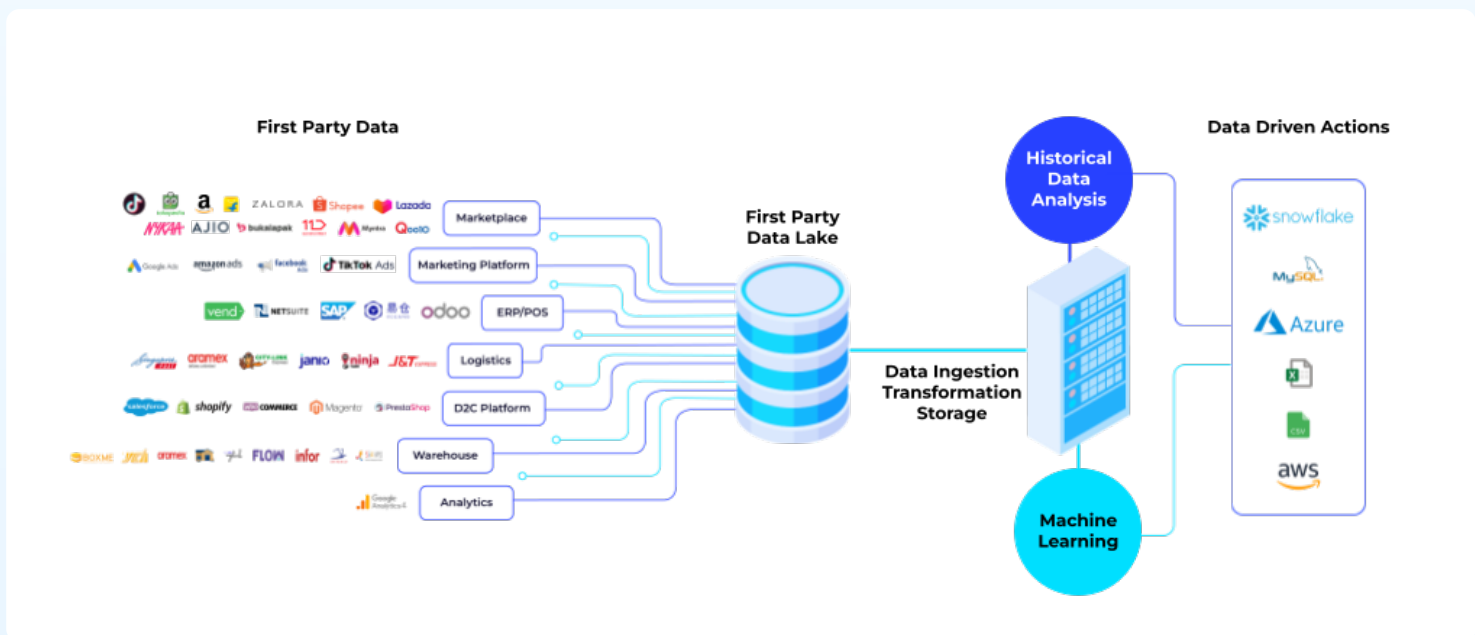
Use Graas' eCommerce Analytics Platform for Data Analysis:

If analyzing data is your primary challenge, Graas provides a powerful eCommerce analytics platform. The platform is designed to track and manage over 100+ metrics, giving you the flexibility to monitor anything from attribution to revenue metrics,

average order value (AOV), and even financial data.

The platform integrates data from all your major sales and marketing channels, ensuring that nothing slips through the cracks.

Analytics	D2C Platforms	Email Marketing	Logistics	Marketing Platforms	Marketplaces	Warehouses	Websites
Google Analytics 4	shopify	mailchimp	Singapore POST	amazon ads	Shopee	mystock	Lighthouse
	Magento		aramex	facebook Ads	Lazada	infor	
	WOO COMMERCE		janio	Google Ads	ZALORA	YCH	
	PrestaShop		J&T EXPRESS	Google Search Console	tokopedia	SATSACO	
	salesforce		ninja van	SEMRUSH	Tik Tok	SiAWS Warehouse Management System	
			CITY-LINK Express		amazon		
					and more...		

The key advantage of using Graas' platform is that it's built to deliver actionable insights and recommendations. Once your data is cleaned, organized, and analyzed, the platform will provide suggestions that you can implement immediately.

You'll be able to see the impact of your decisions in real-time, allowing for faster adjustments and more precise campaigns.

The Bottom Line:
Actionable Insights Drive Success

Brands that take a proactive approach to leveraging data are the ones that consistently see higher profit margins, better manage their SKUs, and secure those coveted buy boxes in highly competitive marketplaces.

When you run analytics on clean, organized, and unified data, you uncover actionable insights that can transform how you market to customers. With the right insights, you can create more effective campaigns, optimize your sales strategies, and, most importantly, increase revenue.

Data is no longer a luxury; it's the foundation of modern eCommerce success. Armed with the right data management process, you can turn insights into opportunities and opportunities into sales. Ready to generate big dollars for your eCommerce brand using your big data?

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