Middlesex University London

CST3340

Coursework 1: Tommy Hilfiger

By Chioma Audrey Uche-Nwosu

M01052911

Table of Contents

1. The Case Study

The case study focuses on Tommy Hilfiger, an American fashion brand that offers a range of products, including clothing, footwear, accessories, and fragrances. Founded in 1985, the brand now operates in over 2,000 free-standing retail stores in 100 countries.

The scenario where data can be used to improve Tommy Hilfiger's decision-making process focuses on how the company selects and designs marketing campaigns and the ambassador(s). By analysing data from previous brand partnerships and campaigns, such as social media engagement metrics (likes, comments, shares), and post-campaign sales performance across different channels, including social media shops (like TikTok shop and Instagram Shop), the official Tommy Hilfiger website, retail stores, and partner retailers, the company can make data-driven decisions about which ambassadors, influencers and creative directions will have the most impact.

A key example is the brand's "The Hilfigers" Autumn/Winter 2010 campaign, which marked the brand's 25th anniversary. The campaign featured a fictional family of Hilfigers, dressed in the brand's clothing, set in fun, preppy venues that portrayed their adventures and gave the audience a glimpse into their lives in a slightly voyeuristic way. Tommy Hilfiger hasn't recreated this campaign since then, so relaunching it 15 years later with data-driven decisions could lead to a highly successful comeback.

By using insights from past ambassador performance and social media analytics, the brand can create a new "Hilfigers Family" that represents diversity across age groups, nationalities, and lifestyles. This will allow it to connect with a wider global audience. Data can also guide decisions, such as which ambassadors or influencers to feature based on past shoppers' preferences and interests, which global locations to film seasonal campaigns (for spring, summer, autumn, and winter), and which clothing styles and price ranges appeal most to different demographics that regularly shop at Tommy Hilfiger.

The goal is to create a campaign that reflects inclusivity and resonates with customers worldwide, backed not just by creativity but by evidence from past and present data.

2. The Data Requirements

The relaunch of “The Hilfigers” campaign requires both internal and external data to ensure that Tommy Hilfiger has all the necessary information to launch a successful campaign.

Internal data:

1. **Sales:**
   This includes sales data from Tommy Hilfiger stores:
   - Products purchased
   - Where, when, and by whom each purchase was made
   - Total sales volume
   - Profit made over specific time periods
   - Sales trend by region

2. **Customer data:**
   This includes data about Tommy Hilfiger’s customers:
   - Age
   - Gender
   - Location
   - Shopping preferences
   - Purchase frequency
   - Members of the Hilfiger Club (Tommy’s loyalty program)

3. **Website analytics**:
   This includes metrics such as:
   - Website traffic
   - Click-through rates
   - Cart abandonment rates
   - Most viewed items
   - Most returned items
   - Time spent on product pages
   - Number of users signing up or creating accounts.

4. **Past campaign performance:**
   Since the goal is to relaunch the “The Hilfigers” campaign, it’s essential to analyze data from past marketing efforts.
   - Conversion rates
   - Campaign duration
   - Customer retention rate
   - Regional campaign performance

5. **Products**:
   - Product name
   - Collection
   - Category
   - Size
   - Color

- Price
- Stock level
- Restock frequency
- Return rate

External data:

1. **Retail partner data:**

This includes sales data from retailers that sell Tommy Hilfiger products.

- Retailer name
- Stores location
- Sales volume
- Revenue generated from sales
- Product category performance
- Seasonal and time-based trends
- Return rates
- Stock levels and restock frequency

It shows how Tommy Hilfiger performs outside its own stores.

2. **Social media:**

This covers data from social media platforms:

- Likes, comments, shares, and saves
- Follower growth before and after campaigns.
- Click-through rates

Analyzing this data helps Tommy Hilfiger understand which types of posts, ambassadors, and campaigns generate the most engagement and drive customers to make purchases.

3. **Fashion trends:**
   These include research on what is currently popular in the global market. Following industry trends ensures that Tommy's campaign remains relevant, timely, and appealing to customers across different markets.

4. **Competitor data:**
   This includes information about how similar fashion brands, such as Ralph Lauren, Calvin Klein, and Lacoste, run their campaigns and who they collaborate with.

5. **Cultural and weather trends:**

This covers differences in fashion choices, modesty standards, and climates across countries. It ensures that campaign visuals, clothing choices, and marketing messages are both culturally sensitive and seasonally appropriate for each market.

3. The Data Storage

This section highlights the internal and external data storage requirements suitable for Tommy Hilfiger's campaign, "The Hilfigers".

3.1 A discussion of the advantages and disadvantages of a data warehouse.

This section discusses the advantages and disadvantages of using a data warehouse for Tommy Hilfiger.

Advantages:

1. With a well-defined data warehouse, Tommy Hilfiger can integrate data from sales, products, and campaigns into one system for better, data-driven decisions. According to PVH's 2024 report, Tommy Hilfiger's revenue fell by 5%, with international sales down 7% due to reduced activity in Europe. Using centralized data, the company can identify underperforming regions, analyze customer trends, and adjust strategies to improve global revenue growth.

2. A data warehouse enhances Tommy Hilfiger's business intelligence by organizing data for faster, more effective reporting and analysis. Insights from social media show that celebrity collaborations, such as Jisoo, Stray Kids, Lewis Hamilton, and Gigi Hadid, drive the highest engagement and sales across Instagram, TikTok, and YouTube. Meanwhile, low engagement on Facebook and Threads highlights areas where the brand should improve consistency.

3. A data warehouse enables Tommy Hilfiger to store historical data for trend analysis and forecasting, helping the brand plan and spot risks early. The 2024 PVH report showed a 5% overall revenue drop but only a 4% decline on a constant currency basis, meaning 1% was due to currency fluctuations. Using this insight, Tommy Hilfiger can adjust strategies as pricing or launching broad campaigns like "The Hilfigers" to offset losses and boost international sales.

Disadvantages:

1. Using a data warehouse requires additional work because Tommy Hilfiger must design and maintain structured queries and data models, which can be time-consuming. For "The Hilfigers" campaign, organizing performance data across platforms and linking ad views to actual purchases makes reporting complex and demanding.

2. Data warehouses at Tommy Hilfiger require collaboration across multiple departments, which can create ownership and coordination challenges. For "The Hilfigers" campaign, both marketing and finance must manage different aspects: audience targeting and budgeting, making oversight more complex.

Snowflake Schema for Tommy Hilfiger

Using a snowflake schema is most suitable for Tommy Hilfiger. Since the focus is on the relaunch of the 2010 campaign, “The Hilfigers”, the snowflake schema is the best choice because it allows Tommy Hilfiger to store and analyse data from different areas of the campaign, such as the campaign itself and the associated ambassadors, sales performance, ambassador information, region, timing, and customers in an organized and structured way.

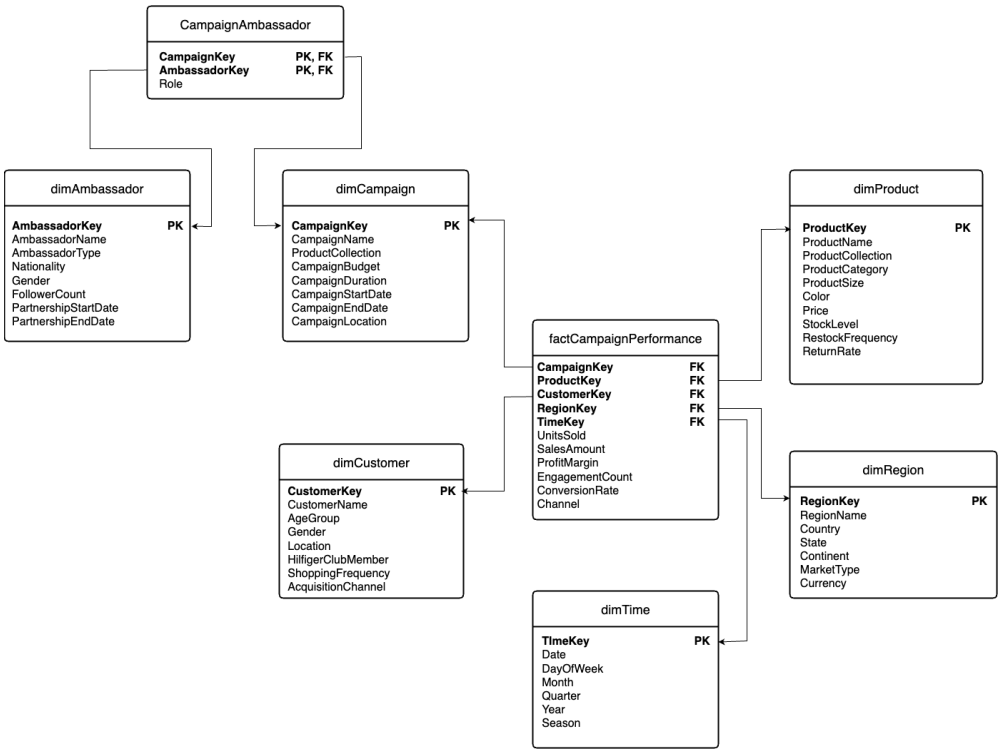

Figure 1: Snowflake schema for Tommy Hilfiger.
Figure created by Chioma Audrey Uche-Nwosu.

The factCampaignPerformance table is the core of the schema, combining data from products, customers, regions, and time to track how “The Hilfigers” campaign performs across different markets. Metrics like UnitsSold, SalesAmount, ProfitMargin, EngagementCount, and ConversionRate measure both financial and marketing success, while Channel shows where purchases come from online stores, retail outlets, or partners. Foreign keys link the table to the campaign, ambassador, product, customer, region, and time dimensions, enabling analysis across all areas.

The Product dimension stores details about each item featured in “The Hilfigers” campaign: product name, collection, category, size, colour, price, stock level, restock frequency, and return rate. Analysing this data helps identify which items should appear in future campaigns. Connecting Product with Region and Time dimensions ensures seasonally relevant promotions (e.g., coats for Europe’s winter, lighter pieces for Australia’s summer), while links to Customer data reveal what Hilfiger Club members and non-members buy most often.

The Campaign dimension defines each campaign’s identity: name, collection, budget, duration, and location. For 2025, “The Hilfigers” is designed as a year-long

campaign showcasing a diverse family: parents, children, grandparents, and even a dog, so that every audience segment sees themselves represented. Each family member mirrors a target group, such as an Indian mother figure for South Asian customers or a colourful grandmother for expressive, creative buyers.

The Ambassador dimension captures ambassador details: name, nationality, follower count, and partnership history, allowing Tommy Hilfiger to evaluate who drives engagement and sales globally. The CampaignAmbassador bridge links campaigns and ambassadors, showing which combinations (e.g., Zendaya and Lewis Hamilton) generate the highest conversions or visibility, helping refine casting and marketing decisions.

Finally, the Customer dimension identifies who buys Tommy Hilfiger products: age, gender, location, shopping preferences, frequency, and Hilfiger Club membership. Linked with Region and Time, it highlights when and where customers spend the most, helping plan targeted seasonal campaigns. Expanding customer reviews beyond the North American website would also give the brand clearer insight into global satisfaction, guiding both “The Hilfigers” campaign and future collections.

3. 2 Using examples from Tommy Hilfiger, a discussion of

- **The ETL process.**

Extraction

In this stage, data is collected from structured sources across Tommy Hilfiger's business, including e-commerce sites, in-store point-of-sale systems, loyalty programmes like the Hilfiger Club, and retail partners such as Macy's, ASOS, and Zalando that share data in flat files like CSV or Excel. Additional inputs come from web analytics tools tracking visits, clicks, and cart activity, and marketing systems exporting structured campaign data.

Because these sources use different formats, the extraction process converts them into a single standard format (usually CSV or JSON) before transformation. For Tommy Hilfiger, extraction should be performed in batches, typically at the end of each day or week, to integrate new sales, customers, and campaign data into the warehouse for reporting and analysis.

Transformation

In this stage, Tommy Hilfiger transforms extracted data into a consistent, usable format for loading into the warehouse. Business rules are applied to standardise elements such as date formats, time zones, product SKUs (Stock Keeping Units), and customer records, ensuring consistency across regions and systems. Data cleansing is also performed to correct errors, unify currencies, remove duplicates or bot activity, and fix missing or inaccurate product and sales details.

Loading

In this stage, the transformed data is loaded into Tommy Hilfiger's central data warehouse, which serves as the single source for reporting and analysis across all departments. The process is incremental, adding new or updated data such as daily sales or weekly campaign metrics without overwriting existing records. Using a Delta approach, only changed data is loaded, improving efficiency and ensuring that "The Hilfigers" campaign insights remain current while preserving historical trends.

3.3 Online Analytical Processing (OLAP).

For Tommy Hilfiger's Online Analytical Processing (OLAP) operations, the data cube will utilize three main dimensions: Product, Time, and Region to analyze the performance of "The Hilfigers" campaign across various categories and markets.

Dimensions of the OLAP cube

- **Product**: This includes Tommy Hilfiger's main product categories: shirts, jackets, trousers, and shoes.
- **Time**: This covers the quarters of the year (Q1, Q2, Q3, and Q4).
- **Region**: It is divided into four continents: North America, Europe, Africa, and Asia.

Original data cube

This cube represents the base data before any OLAP operations are applied.

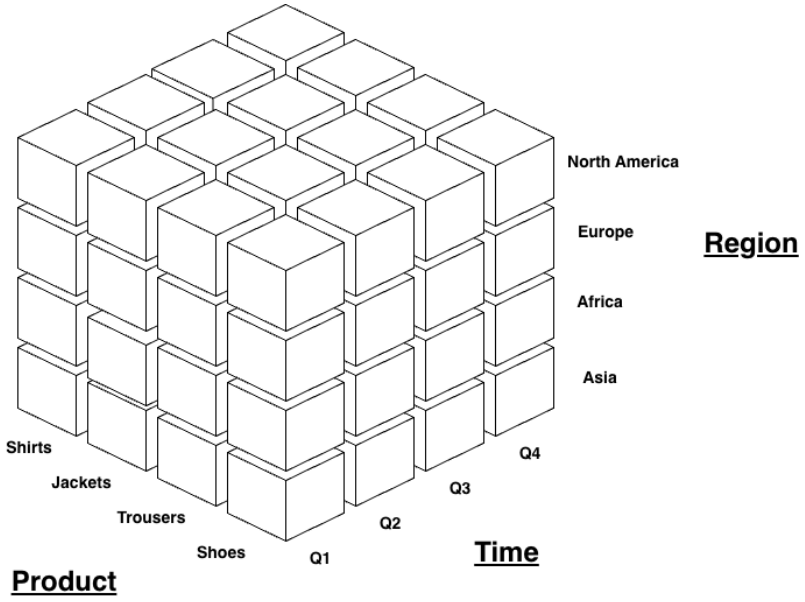

Figure 2: Original OLAP data cube for Tommy Hilfiger's "The Hilfiger" campaign. Figure created by Chioma Audrey Uche-Nwosu.

To better understand how campaign activity influenced product sales, the following analytical query can be applied using the OLAP cube:

Query:

"After the launch of "The Hilfigers" campaign in August 2025 (during Q3), how did sales of Tommy Hilfiger's top-performing product category, shirts, vary across different regions in Q4 (October-December 2025) compared to Q3 (July-September)?"

To answer this query, the following OLAP operations can be applied to the cube:

Slice

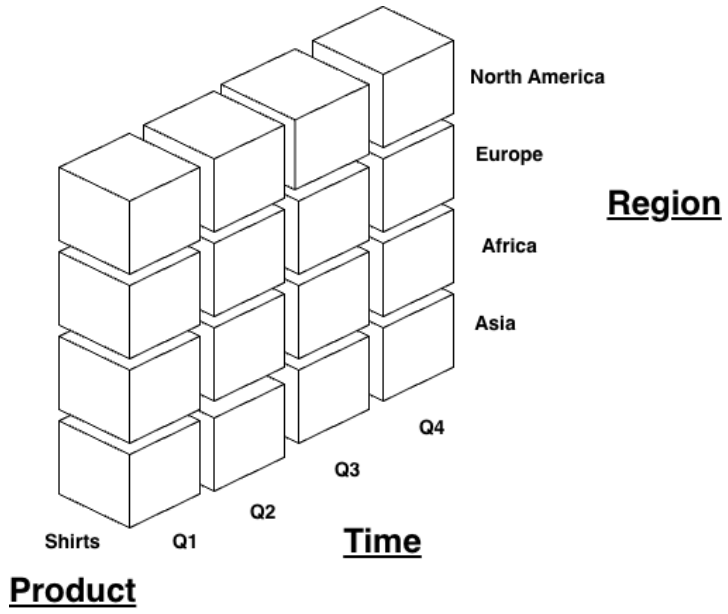

Figure 3: Slice Operation – Product Dimension (Shirts)
Figure created by Chioma Audrey Uche-Nwosu.

The cube can be sliced to focus only on shirts within the Product dimension. This removes all other product categories and allows Tommy Hilfiger to view sales and revenue specifically for shirts across all regions and quarters.

Dice

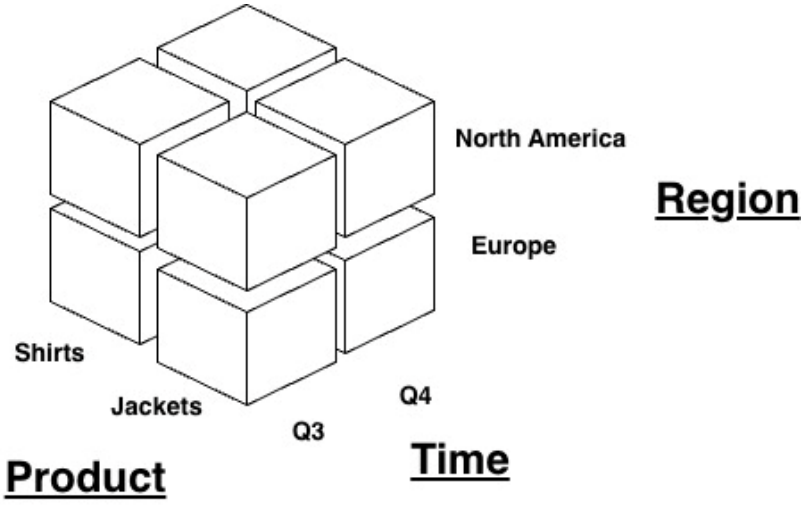

Figure 4: Dice operation: Sub-cube for shirts and jackets (Q3-Q4, North America and Europe).
Figure created by Chioma Audrey Uche-Nwosu.

The dice operation selects a sub-cube focusing on shirts and jackets (the second top-performing product category), limited to Q3 and Q4, and only for North America and Europe, Tommy Hilfiger's strongest markets. This allows the brand to compare how these two top-selling products performed during and after "The Hilfigers" campaign in their most profitable regions.

Roll-Up

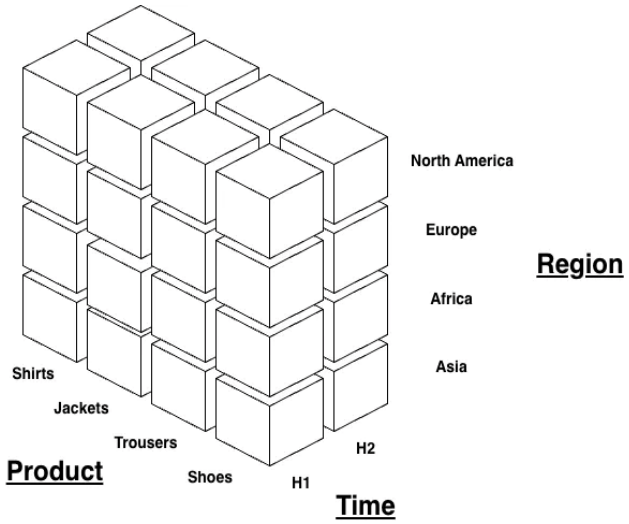

Figure 5: Roll-up operation: Aggregating time dimension (H1 and H2).
Figure created by Chioma Audrey Uche-Nwosu.

The cube is rolled up along the Time dimension, combining quarterly data into two halves, H1 (Q1+Q2) and H2 (Q3+Q4). This summarises shirt sales before and after “The Hilfigers” campaign, helping Tommy Hilfiger see overall performance trends more clearly.

3.4 A discussion of the advantages and disadvantages of a big data system.

- Big Data

Big Data refers to technologies that handle extremely large, fast-moving, and diverse datasets that traditional databases cannot process. It is defined by Volume, Velocity, and Variety.

For Tommy Hilfiger, Volume refers to the massive amount of sales and engagement data generated globally; Velocity captures the real-time data flow from online stores and social media platforms; and Variety includes structured data like sales figures and customer profiles, alongside unstructured content such as images, videos, hashtags, and comments from TikTok and Instagram.

From the data identified earlier, structured data includes sales records, customer profiles, and product information, while unstructured or semi-structured Big Data includes social media data, competitor insights, and cultural or fashion trends. These datasets, which come in multiple formats (text, video, JSON feeds), require Big Data tools for analysis as they cannot be managed in traditional relational systems.

A discussion of reasons the data is not suitable for storage in a data warehouse.

- **Volume**: The huge size of global social media and campaign engagement data exceeds what data warehouses can store efficiently.
- **Velocity**: Continuous real-time updates from platforms like TikTok and Instagram move faster than the batch ETL processes that warehouses rely on.
- **Variety**: Images, videos, comments, and reviews are unstructured and don't fit into the fixed table format of a warehouse.
- **Real-Time Needs**: Marketing teams need instant insight into campaign performance, which warehouses cannot provide.
- **Integration Complexity**: Combining structured data (sales) with unstructured data (social content) requires flexible Big Data systems, not rigid warehouse models.

• Using examples from Tommy Hilfiger, discuss a framework that could be used to collect, store, and analyse this data.

Tommy Hilfiger can use the Apache Hadoop framework to collect, store, and analyse the unstructured data produced by "The Hilfigers" campaign, such as social media comments, customer emails, and web logs. Hadoop's HDFS (Hadoop Distributed File System) stores this data by breaking it into smaller parts and distributing it across multiple systems (nodes), allowing fast access and fault tolerance even if one node fails.

The MapReduce component processes this data by dividing tasks among the nodes and then combining the results. For instance, Hadoop can analyse millions of social media posts to identify which ambassadors or products receive the most engagement, or group customer emails by urgency based on keywords like "refund" or "missing order." It can also analyse comments and discussions about "The Hilfigers" models on social media and forums, showing which ambassadors, such as Lewis Hamilton, Zendaya, or Gigi Hadid, generated the strongest reactions or

engagement. These insights help Tommy Hilfiger select future campaign models that resonate most with customers and reflect global audience preferences.

• A discussion of the advantages and disadvantages of using cloud storage.

Cloud Computing Overview

Cloud computing enables data and files to be stored, managed, and accessed over the internet, rather than on physical servers owned by an organization. It provides flexibility, scalability, and cost efficiency by allowing users to access data anytime and anywhere. For Tommy Hilfiger, cloud computing enables global teams from marketing to analytics to access shared campaign and sales data securely across regions.

Use of Cloud Storage for Data Warehouse

Using cloud storage for Tommy Hilfiger's data warehouse means storing structured data such as sales, customer, and product records on a secure online platform instead of local servers. This reduces maintenance costs and allows seamless scaling as data grows. For example, campaign performance data from "The Hilfigers" campaign can be stored and accessed instantly by regional managers to generate sales and engagement reports. Cloud-based warehouses like Amazon Redshift or Google BigQuery allow Tommy Hilfiger to automate updates and maintain a single source of truth across departments.

Use of Cloud Storage for Big Data Systems

For big data, the cloud provides the necessary infrastructure to process and analyse large, unstructured datasets, such as social media comments, influencer engagement, or fashion trend reports. Using a cloud-based big data platform (e.g., Hadoop on AWS), Tommy Hilfiger can process campaign feedback, identify trending ambassadors or styles, and adjust marketing strategies in near real time. This also eliminates the need for expensive on-premises hardware and improves the speed of insight delivery.

Advantages

- It is scalable and flexible to handle campaign data growth.
- It is accessible globally by multiple teams in real time.
- It reduces infrastructure and maintenance costs.
- It enhances collaboration and speeds up reporting.

Disadvantages

- It needs ongoing subscription costs for large data volumes.
- There are potential security risks if sensitive data (e.g., customer information) isn't properly managed.

4. Conclusion

Tommy Hilfiger's relaunch of "The Hilfigers" campaign collects a mix of data during normal business activities. This includes structured data such as sales records from stores and online platforms, product information (names, prices, SKUs, stock levels), loyalty and Hilfiger Club member details, and campaign budgets. It also includes unstructured and semi-structured data such as web analytics logs, social media comments, influencer videos, product reviews, and trend data from fashion websites and competitors. Together, this gives the company a full view of how customers interact with its products and campaigns across different markets.

Structured vs unstructured

Tommy Hilfiger's data clearly combines both types. The structured data, like customer records, product information, and sales, is consistent and best managed through a data warehouse for reliable reporting. The unstructured data, like social media engagement, customer videos, and trend reports, falls under big data, which needs flexible tools that can handle large amounts of constantly changing information. For example, data from TikTok or Instagram about which ambassadors or outfits get the most engagement must be processed differently from store sales reports.

Recommended data strategy

The most suitable approach is a hybrid system, combining a data warehouse and a big data framework. The data warehouse should manage the structured data for reports like campaign performance and product sales, while the big data framework handles unstructured data from social media and trends. The two systems should work together; for example, social sentiment scores about ambassadors or collections can feed into the warehouse to show how engagement links to sales. Likewise, product and customer data from the warehouse can improve how big data tools analyse online trends and feedback.

Use of cloud storage

Using cloud storage makes this hybrid system faster and easier to manage. Cloud storage allows data to be accessed securely from anywhere and can scale up when campaign activity increases. It also ensures all regional teams (in Europe, North America, and Asia) are working with the same updated data. A cloud-based setup combining a data warehouse and a big data system, like Hadoop, helps Tommy Hilfiger handle seasonal spikes in data, reduce maintenance costs, and keep dashboards and reports updated in real time.

A hybrid data strategy gives Tommy Hilfiger the best balance between organized reporting and fast insights. The data warehouse keeps financial and sales data accurate and consistent for monitoring revenue and campaign goals, while the big data tools analyse social and trend information to guide creative and marketing decisions. Cloud storage ties it all together, providing a secure, flexible, and scalable way for global teams to collaborate and make data-driven decisions throughout "The Hilfigers" campaign.

References

PVH Corp. (2024) *Full Year Earnings 2024.* [Online report]. Available at: https://www.pvh.com/-/media/Files/pvh/investor-relations/PVH-Full-Year-2024-Earnings.pdf (Accessed: 9 October 2025).

Tommy Hilfiger (2010) *Official Meet the Hilfigers*. [Online video]. Available at: https://www.youtube.com/watch?v=s1FhQcUhxyU (Accessed: 7 October 2025).

Tommy Hilfiger (2010) *The Hilfigers.* [Online video]. Available at: https://www.youtube.com/watch?v=OImJqAxXHgA (Accessed: 10 October 2025).

Tommy Hilfiger (2010) *The Hilfigers Official Fall Commercial 2010.* [Online video]. Available at: https://www.youtube.com/watch?v=1nWZYa349Qg (Accessed: 2 October 2025).

Tommy Hilfiger (2010) *Tommy Hilfiger: Join the Hilfigers.* [Online video]. Available at: https://www.youtube.com/watch?v=pJe31lhIX40 (Accessed: 4 October 2025).

Vogue Australia (2010) *Tommy Hilfiger Interview: Designer Discusses New Collection*. [Online article]. Available at: https://www.vogue.com.au/fashion/news/tommy-hilfiger-interview/news-story/37a20a338890c18e628d697cd314e51d (Accessed: 7 October 2025).