Big Data Retail Journey - Scaling from Personalization to Individualization

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C O N T E N T S

Introduction

Bob has been buying a particular brand of shirts for 7 years from FashionMart, a leading multi-brand retailer with over 100 stores. One fine day he couldn't find his favourite brand on the aisle. A salesperson told him that they didn't keep that particular brand anymore. Disappointed Bob went out of FashionMart never to return again.

Why did this happen?

Because of hidden data. Had the sales person known about Bob's loyalty for seven years, he would have stacked the aisle with something similar to his tastes. Had the retailer informed their customers about their disassociation with this particular brand or announced a replacement with a better brand, they wouldn't have lost a loyal customer like Bob. Now, Bob is not just one person, he's actually the customer segment that FashionMart had lost for not being updated. The retailer most likely had an overwhelming amount of data which was not processed. This ended up with them having the data but no answers about who their customers were and what they wanted. Using Big Data can be a harrowing experience if you don't have the right analytics.

> Analytics of stored data to find insightful information could have saved from losing a loyal customer segment

Where did FashionMart go wrong?

They must have had records of purchases made by customers like Bob over the years. They had excel sheets filled with information about customer preferences and behaviour. It's just that they didn't use this data, they just stored it away.

What could have helped?

Analytics of stored data to find insightful information could have saved from losing a loyal customer segment, increased cross sales and helped in making on-time promotions to bring in new customers.

What could have helped?

Using the right analytics for their accumulated data could have saved a loyal customer.

Finding Big Help from Big Data

According to IBM 90% of today's data has been created in the last two years. The challenges of high volume, high velocity and variety of data have always been in the market. Recently the sources for gathering data have multiplied with online surveys, sensor devices, social networking, mobile surfing and internet browsing. Thus the data flow has increased immensely. To harness this flow and to utilise accumulated data for the benefit of your business you need to leverage big data analytics. Government organizations, e-commerce, education, retail, every sector is in need of big data analytics in this day and age of 24/7 information flow. According to a survey by Gartner the amount of companies investing or interested to invest in big data is at 76%. This number is 3% points higher than 2014. Let's look at a few pain points in retail scenario which is leading the retailers to rely on big data analysis.

## Challenges in retail scenario:

1. Price optimization

2. Personalization

3. Dark data (Data left unused for the lack of analytics)

4. Implemented Data analytics module not working in tandem with existing IT infrastructure

5. No real time information to give an edge over competition

6. Volume of information from multiple sources

7. Variety of data gathered

8. Speed at which the data is gathered

9. Most existing solutions are on-premise and don't have the capacity to manipulate cloud technology leading to a lack of storage for data and a smarter platform for consolidating analysed data for future use.

Introducing PropelStream

Get the most out of Big Data

PropelStream is a real-time streaming analytics solution built to create and capture value from disparate sources of data. PropelStream collects real time data from all the available sources like router switches, retail stores, internet apps, and a variety of social channels like Facebook and Twitter. Data cleansing is the next stage before sending it to analysis. Accurate predictive and prescriptive analysis is then made and sent via different channels to multiple stakeholders.. Predictive messages are then sent to receivers via channels like mobile, file systems, fraud detection pages predictor info RDBMS.
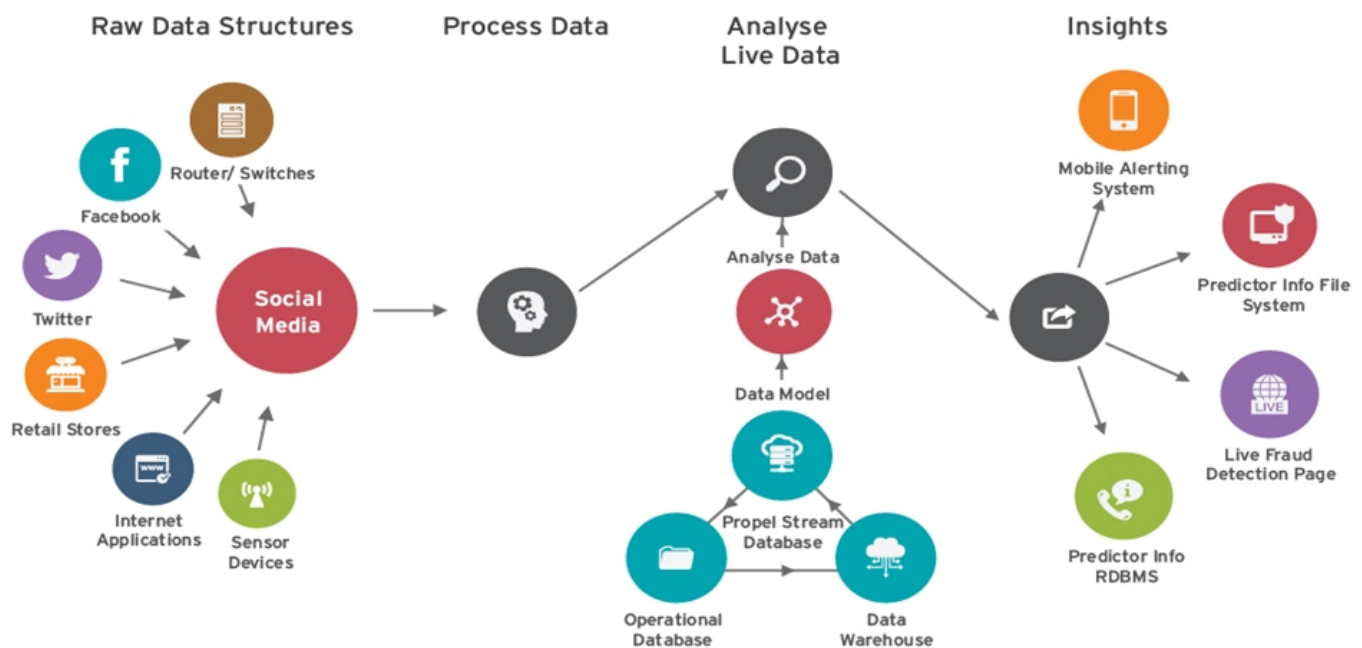
How can Aspire's PropelStream help the Big Data scenario?

While the concept of bulk data has always been there, it is the way it is handled that has changed. For consumer focused industries like retail, big data analytics can bring about a significant change.

> ## PropelStream makes the shift from Personalization to Individualization.

Merchandizing Analytics

Bridge the gap between what you have and what customers need with big data analytics. Big data analytics helps you meet one of the most challenging aspects of retail, inventory management. By analysing gathered data from multiple channels you can get accurate predictions about the market, this will help you keep balance between demand and supply. Big data analytics gives you the opportunity to stock up on items which will be in demand with offers and discounts that will keep you ahead. Without proper homogenization and analytics of accumulated data, it is impossible for the retailer to meet the demands and keep up with the changing market scenario. Also, tracking of shipments is another real-time dependent aspect of retail in which Big Data Analytics can help.

Questions PropelStream can answer for you:

- ➜ How can I make my product the next big thing?
- ➜ Is my inventory ready for the upcoming demand for a certain product?
- ➜ How can I get the attention of social channels for my product?
- ➜ Which is the customer segment that is likely to buy my products?

Retailers like Tesco and Walmart use Big Data Analytics to keep a tab on demand and supply and also shipment through real-time data. Starbucks collected customer preference data to send their customers personalised ads and coupon offers.

PropelStream can be used to make accurate predictions about demands and customer preferences, significantly reducing customer churn and helping in keeping the inventory updated across all channels. Leveraging PropelStream's analytical model reduces the chances of revenue loss for "out of stock" products. It also helps you keep track of your shipments with real-time data.

Customer Analytics

As a customer focused industry retailers need to draw the customers' attention to their own brand of personalization. Every time a customer makes a purchase he/she is giving a multitude of information to the store like his/her buying habits, brand preferences, loyalty points etc. In this day and age of high customization, consumers expect their retailers to understand and stay updated with their changing needs and demands. They will pin their faith on a retailer who provides the best inventory across channels with on-time offers having studied their preferences over time.

> Leveraging PropelStream's analytical model reduces the chances of revenue loss for "out of stock" products.

Where PropelStream helps:

→ Increasing cross sales by analysing customer preferences

→ Helping in price optimization to keep track of market demand

→ Assisting in producing individualized offers based on real-time data

→ Customer profiling

Walmart combines social monitoring with various other sources of data to find out the response about a product and then send individualized messages to targeted customers. With models like PropelStream, retailers can homogenize data collected from all channels including sensors, retail stores, social channels like Facebook and Twitter. This homogenized data can then be used to make customer profiles. Based on that data you can make special packages, offers and personalised messages to be delivered. PropelStream refreshes the database on a per night basis. This can be adjusted according to your business needs on a weekly or monthly basis as well. This will enable you to stay updated about all the recent activities in the market, trends and changing customer preferences. It will also generate real-time data from which accurate predictions can be drawn about the market. So that every time a customer shops online or visits your store you are able to present real-time individualized offers based on current trends and his recent purchases.

Social Media Analytics

Social media is a prominent data source in today's market. Forums, blogs, tweets, likes could easily make or break a brand's image. Keeping a tab on what's happening in the social media and deriving useful market information from this ever changing sea of information is one of the greatest challenges of data sourcing. With the help of Big Data analytics it is easy to filter out relevant information about products or brands from trending topics. Then retailers can create certain offers for those brands and products and send them as personalised messages on social platforms to those interested. Thus it also helps them in keeping their inventory updated with the next most selling items.

How PropelStream comes into picture:

→ Product Discovery and Social Behaviour

→ Social Network Collaboration for Brand Awareness

→ Customer Engagement and Brand Management

Online retailers like Amazon and Flipkart make the most of social media by offering users relevant offers and discounts on best selling products.

With the help of PropelStream, it is easy to track social media activities and gather data from all social sources to turn them into homogenized data. This data then can be stored into the operational database. PropelStream's analytics will derive real time information about trending topics and provide market predictions. Based on these predictions retailers can ensure customer satisfaction and improve purchasing experience.

Why choose PropelStream?

1. Processing data from all sources and transforming them into homogenized data

2. Data module can be refreshed on a business need basis, daily, weekly or monthly

3. Ensure rapid decision making with predictive messages accessible from any device

4. Predictive results can form new workflow

5. It helps in building a consolidated information management system

6. Modules can be easily integrated with existing IT infrastructure

7. One model can be used for various different scenarios

8. Lightweight, open source, made to fit customers' requirements, not OS dependent

9. Available both on premise and on-cloud

10. Data security

11. Data storage

12. No dark data

Why choose PropelStream?

Sigh! if only FashionMart had used PropelStream, Bob and Jobes and many others like them would have been happier people.

References

http://www.gartner.com/document/3123817?ref=solrAll&refval=161718133&qid=f297e7192ca075f1ff41f3719b5892ea

http://www.bloomberg.com/news/articles/2014-06-03/retailers-use-big-data-to-turn-you-into-a-big-spender

http://www.ibmbigdatahub.com/presentation/big-data-retail-examples-action

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