

A Major Retail Food Chain needed a better way Forward

MODERN BUSINESS INTELLIGENCE - A CASE STUDY FOR EVERYONE

Everyone has traditional business intelligence (BI)!

The truth is - everyone should use modern BI technology

Data Discovery with Qlik Sense is **the best way** forward for
everyone!



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1) Executive Summary

The purpose of this paper is to advocate for a **better approach to solving the business intelligence and data analytics problems facing most corporations** today. This approach includes **people, process, technology and data**. However, in this case study with a retail food chain, the traditional approach with an enterprise data warehouse and traditional Business Intelligence was determined to not be the best way forward. **Modern Business Intelligence** was really needed to solve this complex problem and a reasonable rapid **time to value** was needed. Modern BI requires modern **technology** and modern **methodology** to be effective. A pilot was conducted by a major retail food chain company and it was determined that the best way forward was with **a modern technology called Qlik Sense**. Why? If you were the executive of a company with many disparate data systems, business users who need timely and accurate information daily, and an existing enterprise data warehouse and team that could not effectively solve this problem in a timely manner, ask yourself these questions:

- ***What is the story you want to tell?***
- ***What would a great leader do?***
- ***What would your replacement do?***

The answers to these questions will be provided in the call to action part of this paper.

2) The Problem

A major retail food chain needed to provide timely and accurate information to all its business groups to include finance, marketing, sales and operations. To do this, a more modern approach needed to be implemented with modern technology that would enable this transformation to take place in a few months. As usual, there were many different data bases and data sources in this company. The question before them was: **How can we integrate all this data from many different disparate data sources into one data model? How can we do this in a relatively short period of time and how can we best maintain this newly integrated data model?** The way forward must answer the following questions:

- **What is the issue that demands resolution?** Data is disparate and everywhere and will continue to overwhelm the business and IT groups of all companies! There are multiple data bases, and this will continue in the foreseeable future. Also, there is a need to keep multiple years of data with order details that requires easy access and analysis.
- **Why does it exist, how is it getting worse?** The Data Revolution is ongoing around the world daily. There is because a business will grow over time. In the retail business, there are multiple

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methods for a customer to place an order. Also, there is a need to keep track of what customers really think and say via social media such as Twitter. The typical customer today has a mobile device and is a technology user. Therefore, the data revolution will continue to grow in the foreseeable future both internally and externally with retail customers.

- **Who is affected by it?** **EVERYONE**. Business Users from all groups need to be able analyze data that exist in multiple locations. The current use of traditional business intelligence simply is not sustainable for the future.
- **What will happen if a solution isn't found?** You will lose your way and you will not be effective in the future and you will have fewer effective people, with less effective processes, less effective technology and **data integrity** issues! Do you really want to continue with only a traditional solution? Do you really believe that any IT department can keep up with the demand of the modern business user? This retail business requires daily and historical knowledge of what is going on with people, process, technology and business operations. The data needs to be readily available and updated daily. It is highly desirable to have a **single data model** for the critical business needs of the company.

3) The History

- How did we get here?

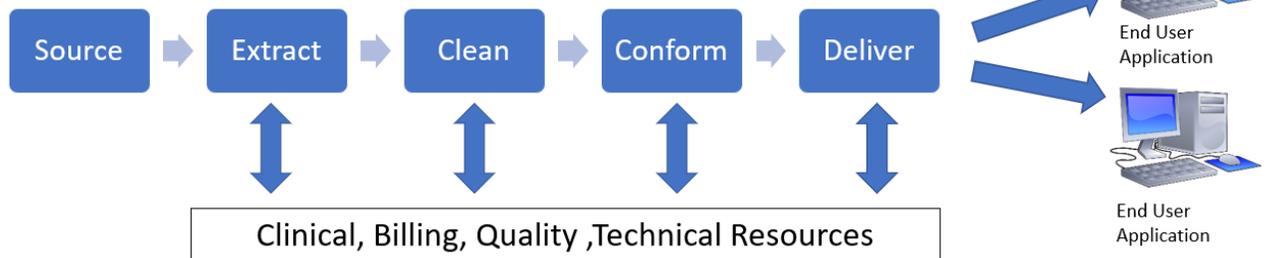
Most retail organizations start with one business. Then there will be another business unit. Next, there will be online orders and a call center. Next, there could be a merger or purchase and now the company is faced with many different disparate data systems. The traditional business intelligence approach for the retail companies has been a traditional data warehouse. However, with the data revolution of mobile users, web orders, walk in orders and the need for more detailed analysis, the current traditional model of an enterprise data warehouse leads to a very time-consuming approach just to keep up with the demand. The current business users want to explore all their data from all possible sources. The current business users do not have **the patience** for the traditional business intelligence approach.

- What are the milestones, events and developments that took us to this place?

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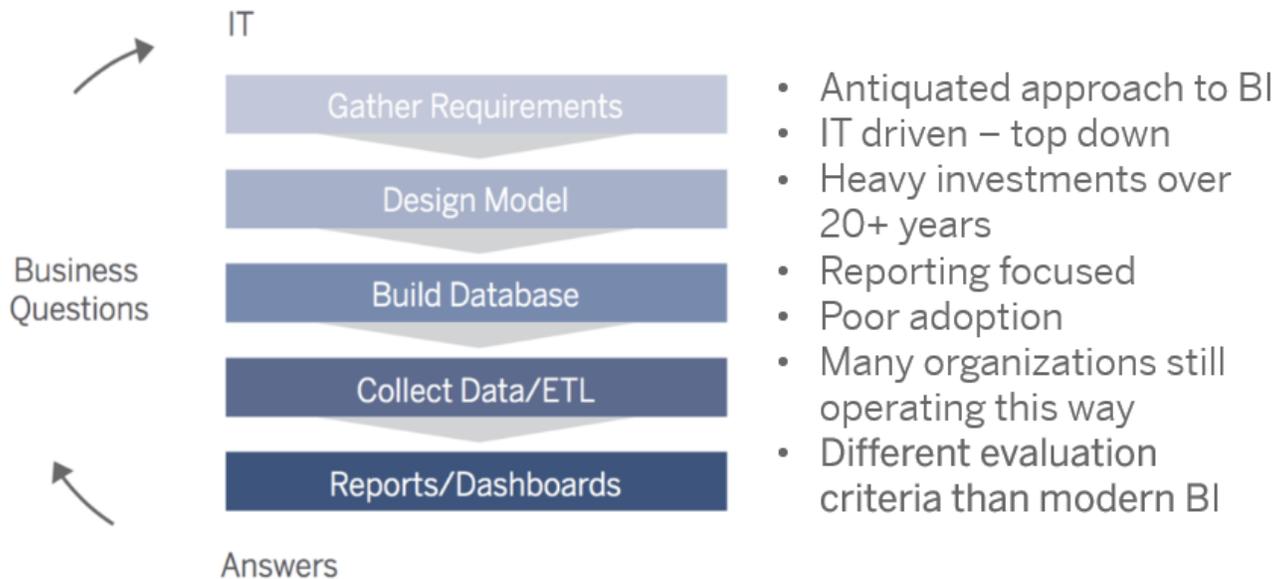
- Explosion of Web Sites, On Line Business, Call centers, Mobile Devices, Social Media and a Data Revolution
- We admire and love the Data Warehouse Toolkit by Ralph Kimball. However, we do NOT have to do this anymore. This is a broken process that separates the business user from their business data. There is a better way with modern technology!

The proven Traditional BI Process separates the ETL Process



ides

Let's First Understand **Traditional** BI



4) The Solution

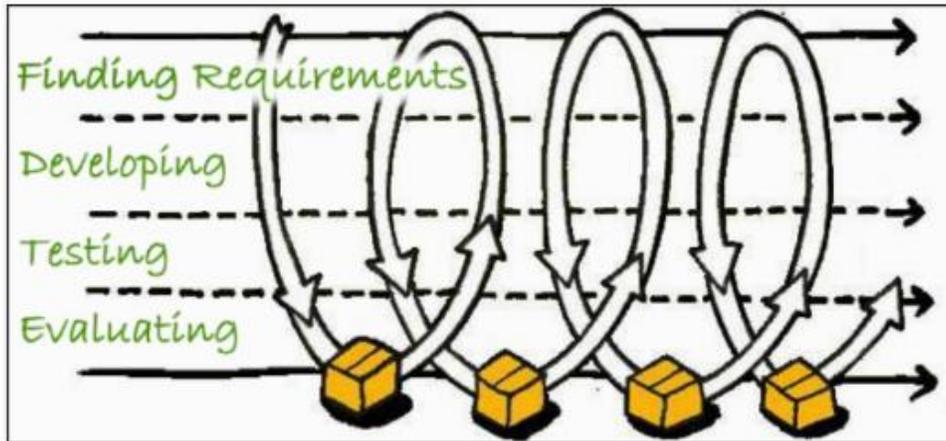
Given this history of traditional business intelligence, there is a need to face the reality of the problem and the solution. The fact is that IT departments are still undertaking an antiquated approach that is IT driven and **reporting focused** and generally results in **poor adoption** by business users. The solution is to use modern technology that enables a modern methodology! Please note the differences between traditional BI and modern BI. For purposes of this paper, let us review how the Gartner group defines modern BI.

Gartner View of Modern BI vs Traditional BI

Analytical Workflow Component	Traditional BI	Modern BI
DATA SOURCE	Up Front Dimensional Modelling (IT Built STAR SCHEMA)	Up Front Modelling not required (Flat Files and Flat Tables)
DATA Ingestion and Preparation	IT Produced	IT Enabled
Content Authoring	Primarily IT Staff but some power Users	Business Users
Analysis	Pre-Defined. Ad Hoc Reporting based upon Pre-Defined Data Model	Free Form Exploration
Insight Delivery	Distribution and Reports via scheduled reports or Portal	Sharing and <u>Collaboration</u> , Storytelling, Open APIs

The opposite of traditional BI is modern BI. No more time should be wasted on documenting detailed requirements up front. There is a need to examine the data and share this data with the business users and this will **enable you to define the requirements**. Requirements can only be met with the data and what is possible with the data! Therefore, a different approach should be taken that starts with **Data Discovery**. If we begin with the major data sources, we can determine the priorities and the requirements that business users really need. Also, by involving the business user from the very beginning, there will be ownership of the solution by the business. Many IT departments today simply do not understand this critical approach. This retail food chain solution was implemented with this approach and Qlik Sense technology.

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The iterative development process

This modern methodology uses an iterative development process that enables the business user to find his important business requirements. As the iterative process unfolds, the business users discover the truth about their business with the reality of their business data. Some business users and vice presidents simply do not know what they really need and want until they participate in this iterative process and visualize the data. This is in stark contrast to the traditional business intelligence approach. This really means the following: No more separation of the ETL from the business users but rather a business executive or business sponsor that knows the business process, business needs and the business data!

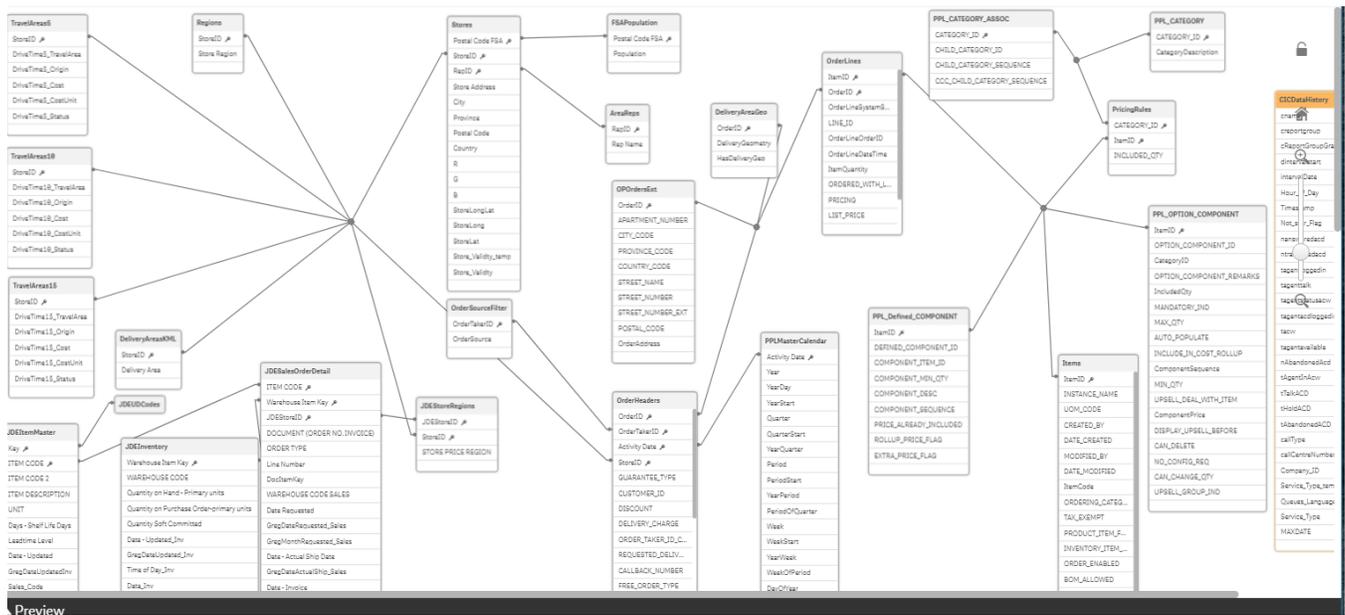
ETL to the End User is an integrated , agile process for user requirements , executive dashboards and involves everyone



Traditional IT data models require **an extraordinary amount of time** and must **be built based** upon **known, documented business requirements**. A modern BI data model extracts **all the data** from all of the data sources **and associates all** the data into **one data model**. This allows all business users to explore **all the data** in one place. Current requirements and any future requirements can be achieved with **no pre-built IT data modelling** such as star schemas, summary tables, etc. Business users can now explore

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all of the data and get the whole story of their data. This is **only possible** if you have modern technology such as **Qlik Sense** and **the associative data model** for all the company data! This retail food chain had 19 different data sources that were extracted and transformed into one data model as depicted below. This simply could not be done with a traditional BI approach and the requirement to pre-build most of the required key performance indicators. In this one data model, there is retail store data, store geocoded data, drive times, boundary lines, store inventory, store order headers, store order lines, corporate inventory, a special period FSA calendar of 364 days per year for period comparisons, weather data and much more in one data model for data exploration by all business departments.



5) The Benefits

The important benefit to this methodology and technology is significantly modern and different:

1. The business user really does **own the solution** instead of the IT department. This will really increase adoption of the solution, improve the accuracy of the measures, and enable future development of future measures and KPIs.
2. The technology will enable the business users and key people in the business units to develop their own dashboards for analysis in the future. Therefore, the traditional reporting focused

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approach will be less needed in the future. This is because the data model is very understandable for both IT and the business users. Every field of every table in the data model can be made available to any business user to meet current and future business needs.

3. The business users will be able to explore **all the data** without the need to request that the IT department to build a KPI. This is because of the modern technology and the **associative data model** that already has all the data in the data model effectively associated into one data model for business exploration. This is a unique capability **of Qlik Sense**. The other major vendors simply do not have this most modern and much needed capability.
- Will you benefit from this technology and this data discovery approach? It depends on your situation, but here are some of the benefits for this retail food chain.
 - Data Integrity
 - One data model that all business users can understand
 - Rapid Time to Value
 - Ability to explore all the data in one data model
 - Ability for business users to build and maintain their own dashboards and visualizations
 - Reduced cost to build by 50 to 75%
 - Reduced cost to maintain by 50 to 75%
 - Ability to have intraday insights into the business operations
 - Should you investigate the reality of this technology and methodology? There is simply no down side to conducting an evaluation with your data using a data discovery approach with Qlik Sense. This is a proven technology and methodology that you should consider for the future.
 - How does Qlik compare to other potential vendors? The Gartner Magic Quadrant has 3 vendors ranked in the upper right-hand quadrant: Tableau, Qlik and Microsoft PowerBI. All these vendors were considered by this retail food chain. The vendor chosen by this retail food chain was Qlik and the technology implemented was Qlik Sense Enterprise, Qlik GeoAnalytics, Qlik Data Market, Qlik Web Connectors on a windows server platform. You should consider the vendor that can deliver on this technology with it current release of software. This vendor is **Qlik** and the product is **Qlik Sense Enterprise**.

6) The Call-To-Action

If your organization has an existing data warehouse, you should consider a pilot with Qlik Sense.

If your organization is currently using Tableau and/or Microsoft Power BI, you should still explore the reality of the modern BI approach with Qlik Sense Enterprise.

There is really no need to be limited to one vendor such as Tableau or Microsoft PowerBI. Why not consider the future with multiple vendors? Why limit yourself to just one?

- Your IT department has declared a standard based upon another software vendor. What should you do? Start a proof of concept **with QLIK SENSE** immediately!
- Tableau customers and MS PowerBI customers should conduct a true proof of concept with Qlik Sense and discover a better way forward for everyone! Every IT department should enable all their business users to build their own dashboards with Qlik Sense! The **degree of difficulty** for business users to build their own dashboards with Tableau is very high when compared to Qlik Sense.
- Now, let us examine the questions posed in the beginning of this paper.
 - **What is the story you want to tell?**
 - *Do you want to tell a story of being traditional only? Do you want to tell a story with only part of your data? Do you want to continue with only 1 vendor? Do you want to modernize? Do you wish to reduce your labor hours and improve your efficiency? I want you to tell the story with all your data. Tell the story, the whole story and enable your business users to build their own dashboards!*
 - **What would a great leader do?**
 - *Most great leader would probably say something like this:*
 - *I want to always improve people, process, and technology and continually improve problem solving, business solutions, and be able to deliver higher value to the company. A great leader would most likely at least consider the Qlik Sense product and the approach outlined in this paper. A great leader would most likely take a bold move and conduct a pilot project to determine the reality of what Qlik Sense has to offer today.*
 - **What would your replacement do?**

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Most likely, your replacement would conduct an innovation project or a pilot project with Qlik Sense!

- Discover what this retail food chain did. The **best way forward** is not Tableau, not Microsoft Power BI, but **Qlik Sense Enterprise!** Explore your own data with your own pilot process and discover for yourself.

7) About this Modern BI Solution for a retail food chain

This retail food chain chose Qlik Sense because, "**Modern Methodology (Data Discovery)**" is enabled by "**Modern Technology (Qlik Sense)**" and delivered a modern solution for now and the future.

- One Data Model
- All Data Joined
- ETL Tool(Qlik)
- Data Visualization
- Data Integrity
- Data Governance
- Reduced labor
- Data What Ifs
- GeoAnalytics
- Weather Data
- Twitter Analytics
- Google Analytics
- Data Discovery Approach
- Future Business User Developers
- IT Development Platform
- Rapid Time to Value
- 2,5 years data model