Key trends impacting retail
Key retail trends 2015
Retail trends for 2015 are shaped by the disruptive changes currently impacting the marketplace

Mobile retailing
Mobile retailing is expected to continue to grow rapidly and will become as big as the entire e-commerce market is today within three years.

Faster retailing
Speed has been an important trend in retail for over a decade. This includes: “fast fashion”, limited-time-only products, flash sales, pop-up establishments, self-service check outs etc.

Innovative retailing
The retail industry will continue to be disrupted by new technologies and innovative competition. There will be no single formula for success, which will come in all shapes and sizes, formats and channels.

Experience retailing
Retailing is no longer just about the product, but about the experience. Consumers want shopping to include entertainment, education, emotion, engagement, and enlightenment.

Travel retailing
Retailers will continue to cater to high-spending travelers, especially emerging market tourists, to drive growth – transforming the role that airport retail plays in a company’s strategy.

Source: Deloitte’s Global Powers of Retailing 2015 – embracing innovation
With the digital revolution, the volume and variety of data is growing exponentially. Big Data Analytics enables a true understanding of shopper behavior, enabling personalized, context driven actions.
Analytics necessity
Retail organizations are impacted by the proliferation of new data sources and need to organize around analytics to maintain a competitive edge

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
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<tbody>
<tr>
<td>Rapid-fire pace of innovation</td>
<td>The rapid-fire pace of innovation has the potential to define winners and losers in Retail, and an integrated core competency around data and analytics is a requirement for the winners.</td>
</tr>
<tr>
<td>Innovation-driven culture</td>
<td>This new “exponential” era will require a culture of experimentation and trial and error to allow companies to remain agile, fluid and adaptable to the pace of change. Analytics is required to support an innovation-driven culture.</td>
</tr>
<tr>
<td>Business context &amp; Analytics</td>
<td>To extract value from Big Data, Retail companies need to be able to make more accurate information-based decisions that drive improved organizational effectiveness and business performance.</td>
</tr>
<tr>
<td>Lagging is losing</td>
<td>Retail companies must build a broad set of analytics capabilities and competencies before they can partake in – and capitalize on – the rapid pace of technological and digital innovation. The majority of the Retail industry is lagging in data and analytical capabilities.</td>
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Retail analytics framework
Analytic capabilities lead to better decisions across the retail value chain

Plan & Market
- Assortment Planning
- Geospatial Analytics
- Space Optimization
- Market Analysis
- Pricing Strategy
- Financial Forecast
- Category Intelligence

Make, Buy & Move
- Vendor Intelligence
- Assortment Localization
- Fulfillment Intelligence
- Inventory Diagnostics
- Supply Chain Diagnostics

Sell & Service
- Marketing ROI Intelligence
- Store Optimization
- Personalization
- Customer Insights
- Promotional Effectiveness
- Omnichannel Insights

Business Management & Support
- Workforce Analytics
- Sustainability Analytics
- Finance Analytics
- Risk Analytics
- Program & Portfolio Analytics
- Tax Analytics

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Retail value chain – Plan & market

In the Plan & Market process of the retail value chain analyses are focused on determining potential improvements and optimizing strategies

**Plan & Market**

<table>
<thead>
<tr>
<th><strong>Market Analysis</strong></th>
<th><strong>Geospatial Analytics</strong></th>
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<tbody>
<tr>
<td>Focuses on analysing the market – using internal and external data – in which the company is operating by providing geographic and demographic insights, competitive intelligence, current performance and trends. Main outcomes are the identification of key opportunity areas to grow or improve the business.</td>
<td>The main goal of geospatial or store location analysis is to provide insights into how to improve store portfolio performance, based on characteristics of the real estate, formulas and socio/demographics of the catchment area. Focus is on increasing existing store performance, changing formula or banner, opening versus closing of stores.</td>
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<table>
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<tr>
<th><strong>Assortment Planning</strong></th>
<th><strong>Financial Forecast</strong></th>
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<tbody>
<tr>
<td>Aimed at improving the products offered and in what quantities they are offered. Insight are gathered based on demand forecasting, historical sales analysis and market basket analysis to improve merchandisers’ decisions on the assortments.</td>
<td>Translates company strategy into financial projections and scenarios by developing financial forecasting, based on inputs from other analyses such as market analyses, store potential and assortment planning, combined with external drivers.</td>
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<tr>
<th><strong>Pricing Strategy</strong></th>
<th><strong>Space Optimization</strong></th>
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<tbody>
<tr>
<td>Analyses focus on how demand varies at different price levels and with different promotion/rebate offers and is used to determine optimal prices throughout product/service lifecycle and by customer segment. Benefits include increasing sales margin, decreasing need for markdowns, and aiding inventory management.</td>
<td>Deals with Macro and Micro space analysis to improve store layouts and store planning as well as optimization of shelf-space to assure most optimal arrangement of goods (individual placement of goods and relation to other goods on the same shelf).</td>
</tr>
</tbody>
</table>
Case study – Market Analysis
Assessing the current positioning in the market and investigating the key areas to grow

Challenge
This fashion retail client faced diminishing sales and high competitive pressure over the past years and needed to change course and improve performance. Within the company, all required data sources were present, but no clear and holistic picture of the current position in the market could be delivered.

The client asked Deloitte to provide insight into the current market place, the client’s position within that market place and potential growth areas that are open to the client.

Approach
Based on a comprehensive market analysis framework, a fact base was developed to be used as input in developing the new marketing strategy. Key focus areas of the framework are the country market development, the competitive field, the customer, promotions, channels, the assortment and brand positioning.

By combining external and internal data sources, the relative position of the client in the market was determined and areas of improvement were uncovered.

Results
As a result of this project, the marketing strategy planning was supported by a comprehensive view on the current positioning.

Marketing strategy was formed based on the delivered insights on and opportunities in market development, customer profiling, positioning vis-à-vis competition, the performance of channels and the assortment performance.
A retail company asked to develop a framework to start transitioning from strategy to concepts and initial plans in assortment. The company wanted to use this framework to view assortment across multiple dimensions. The framework should support actual buying decisions, and provide a “shopping wish list” for collaboration with PD / vendors and for Leadership alignment.

Analyzing the strategic importance of each category to the variability of store purchases across the chain can help identify opportunities for localization.

Category Clustering places each store into a “cluster group” for the given category, based on similarities in consumer purchase behavior or other measures for the cluster group. Cluster profiling use internal and external analysis to enable profiling each cluster.

Merchants are provided with the support and flexibility to determine and analyze their assortment visually and financially across channel and cluster / location, ultimately to improve sales, margin, and inventory.

The art of merchandising is married with science and supporting technology capabilities and a holistic view is provided when planning the assortment.
Case study – Pricing Strategy
Using analytics to reshape the pricing strategy

**Challenge**

Years of inorganic growth and Sales led customer negotiations to tailored pricing across trade customers, resulting in large and difficult to defend price variance across customers.

Pricing differences between accounts exposed this CPG client to downward pressure on pricing when trade partners consolidated or buyers moved retailers.

Existing pricing and trade terms structure was not compliant with internal accounting standards.

**Approach**

Deloitte developed a consistent, commercially justifiable list of pricing and trading terms. The potential impact of new pricing and terms on customers was assessed, and a high-level roadmap for execution was established. The business is supported in preparing for implementation of new pricing and terms.

**Results**

- Single common list price for each product
- Revised ‘pricing waterfall’ and trade terms framework
- Customer and product level impact analysis
- Trade communication strategy
- High-level implementation roadmap
Case study – Geospatial Analytics
Analysis of store portfolio uncovers the granular insights required for maximizing store and ultimately store portfolio potential

<table>
<thead>
<tr>
<th>Store Performance Dashboards</th>
<th>Socio-Demography</th>
<th>On/offline Interactions</th>
<th>Local Market Analysis</th>
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**Challenge**
Organizations face many challenges in maintaining and optimizing their store portfolio. The main goal of store location analysis is to provide insights into how to improve store portfolio performance. It reveals how the current stores are performing, whether there is improvement potential for these stores or if the store should be closed, and it reveals white spots where new stores could be opened profitably. This supports vital strategic and tactical decisions with the most granular insights on the intersection of sales, store, trade area and customers possible today.

**Approach**
- Acquire and integrate data from channel sales, stores, customers, socio-demographic data, road and transport networks and Points-of-Interest such as competitor stores and other important locations
- Analytics models and integrated geospatial data support formulation of marketplace strategy, taking into account customer profiles, local geographies and a host of other potential factors
- Decision support tools enable sales and real estate teams to make decisions supported by data

**Results**
Analysis employs rich data and multiple techniques to get at deep insights about:
- The store location, sales & inventory
- The local geography and socio-demography in which it operates
- Customer behavior of customers that live in that geography
- Interaction and cannibalization between sales channels
- Effect of competitor and other POI presence in the local market
- White spots for potential new store openings.
Case study – Financial Forecasting
Enable better financial forecasting and pricing decisions by improving insight into overall business performance and the underlying drivers

Challenge
A leading CPG company wanted to develop a driver based planning model that would allow them to plan, forecast and simulate financial outcomes based on selected revenue and cost drivers considering Trade Events, Pricing, Volume Forecast / Consumption Model, Production Forecast, Manufacturing and G&A.

Approach
Deloitte designed a driver-based planning model, with the associating Driver / KPI framework and forecasting processes. As a prerequisite, Deloitte helped in harmonization / integration of data definitions, data structures and data flows, as well as the selection and implementation of a new reporting tool, fully integrated with relevant source systems, reporting and consolidation tools.

Results
- More effective, transparent and flexible planning process across Demand, Supply and Finance
- Ability to perform scenario analysis
- Significant reduction in both effort and cycle time
- Integrated end-to-end planning process, in line with business planning cycle
- Improved forecasting accuracy, increased transparency of the drivers and a single set of numbers between sales, supply chain and finance (integrated planning)
Solution – Space Optimization
Enable retailers to better understand customer shopping habits by using innovative technologies

Customer traffic collection technology

Challenge
Customer traffic analysis provides insight into customer shopping habits to improve their operational and customer service strategies. Consistent and frequent measurement of store conversion allows retailers to better evaluate shopping behavior and develop department level insights.

Approach
- Devising important key performance indicators and store metrics for the retailer (e.g. traffic in store, average dwell times, traffic-to-dwells-to-purchase conversions)
- Collection of data with customer traffic collection technology and tracking of different store metrics (video analytics, microlocation analytics, POS)
- Turning the collected data into insights via dashboards and reporting tools.

Benefits
- Improved financial performance through higher conversion rate, increased profit maximization, greater stock availability and reduced loss prevention
- Improved staffing levels by matching sales associate schedules with peak periods of customer traffic
- Greater insight into merchandising, brand performance, customer service, marketing effectiveness and new store concepts.

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Retail Value Chain – Make, Buy & Move
In the Make, Buy & Move process of the retail value chain analyses are focused on optimizing sourcing and assortment as well as improving supply chain performance

**Make, Buy & Move**

**Category Intelligence**
To optimize the sourcing strategy, different insights can be generated by analyzing the overall spend, quantifying the value of strategic partnerships with suppliers, optimizing the supplier base and shortening lead times.

**Vendor Intelligence**
By increasing intelligence on the vendors, retailers can improve negotiation results. Analyses focus around the supplier cost drivers and developments over time, providing insight into supplier margins and quantifying supplier investments in the relationship.

**Inventory Diagnostics**
Aimed at optimizing the inventory mix, levels, and locations. Maximizing inventory turns by having the right product inventory by location to capture new sales. Minimizing excess and obsolete inventory and analyzing inventory levels and demand by location.

**Assortment Localization**
The main goal is to optimize the assortment of different retail outlets and/or channels. By executing geospatial analysis and clustering of retail outlets and measuring customer behaviour at different locations and channels, the assortment can be differentiated to provide a better fit to the location/channel.

**Supply Chain Diagnostics**
Supply chain diagnostics aims at enabling and improving the ability to view every item (Shipment, Order, SKU, etc.) at any point and at all times in the supply chain. Furthermore its goal is to alert on process exceptions, to provide analytics, and to analyze detailed supply chain data to determine opportunities of cycle time reduction.

**Fulfilment Intelligence**
Focuses on increased reliability of purchase order submission process until delivery. Analyzing supply chain for identification of common or consistent disruptions in fulfilment of orders. Reliability is key, even more so than speed.
A large retail company has asked Deloitte for support in making the right choices in setting up its category buying strategy. The company is looking for a way to evaluate different scenarios of the quantities to buy, to consider alternative sourcing arrangements, and to assess risks in order to minimize the potential exposure in the supply chain.

Deloitte developed a scenario modelling tool for what-if analysis to support decision making on the Category Buy Strategy. By combining disparate data sources, insights can be delivered across functions and across categories. The user is able to model multiple parameters simultaneously and to save snapshots of scenarios to compare outcomes.

The tool increases transparency in Category Buy Strategy decision making across categories. Also, by using the What-if scenario modelling, the client is able to make better cross-functional decisions. Finally, the tool provides insights into the exposure (risk) on category level in the buying process.
Challenge

The client is known for its innovative and cutting edge style in the world of denim. Quality of its products, service retailers and consumers are high priority. The client is always looking for and finding ways to improve these aspects. The client identified three points on which they could improve further:

- Increase insights into inventory levels and turnover rates
- Delivery reliability (on time and in full)
- Insight into their internal processes.

Approach

Together with Deloitte the client worked on an information management solution, powered by QlikView, consisting of two major components:

- Inventory management
- Supply chain visibility

Results

The solution provides the client the ability to do improved analyses on their supply chain and identify and correct possible bottlenecks. By combining insights into inventory levels, turnover rates, and sales projection, the client is able to stabilize the fulfilment of market demand.
Case study – Assortment Localization
Improve store performance and optimize assortment locally

Challenge
In this particular retail company, different stores are located in the mainland. To identify concrete action with tangible business opportunity the company asked Deloitte to:

- Apply Store Clustering to understand store performance drivers and to develop actionable insights to improve store performance
- Enhance key style inventory allocation to further optimize in store product availability.

Approach
Deloitte was given several data sources for a total number of around 3,200 stores, from which eventually approximately 500 variables each were distilled. The clustering technique chosen for this particular project was a self-organizing map, an advanced analytical modeling technique. This approach enables a fair comparison of the many different stores.

Results
The Self-Organizing-Map led, among others, to the following insights:

- Stores that had more competition had overall higher productivity (revenue / square meter), however too much competition led to cannibalization
- Stores with certain inventory mixtures performed significantly better than other stores with similar properties

These two insights allowed us to define opportunities for the retail company with a value of tens of millions per year.
Challenge

In this particular retail company, millions of products are continuously being produced and shipped to distribution centers around the globe. In order to satisfy customer demand in time, it is necessary that the coverage is in order, i.e. the percentage of the products that arrives at the distribution centers on time and in full. In order to improve the coverages and meet the set targets, the company wanted insight into the drivers that most influence the coverage and eventually also the delivery in full and on time. Therefore they asked Deloitte to perform a detailed analysis on their data.

Approach

Collected the ‘15 week coverage rate’ for full year of orders. A clustering technique was used to cluster 26,000 coverage rates. This technique groups the coverage patterns in buckets of similar patterns, which then comprise a single cluster. Eight buckets of different coverage patterns were visualized and these buckets gave insight in the drivers of the coverage for the orders.

Results

Based on the different analyses, several insights were extracted with incremental business potential such as:

- Carrier performance has the largest impact on the coverage
- Good coverage is usually caused by slack in factory performance
- Identified significant number of orders that were only slightly (1-7 days) late and could be quick wins
- Actionable insights to improve process and areas of the order pipeline, which improved the coverage by a significant margin.
Challenge
Over the last years, online sales channels have become more and more important for companies. With the online supply increase, however, customers have become more demanding in terms of delivery time and service. Reliability is therefore extremely important, even more so than speed. Therefore a large retail company asked Deloitte to create a clear picture of the Direct-to-consumers online purchase order submission process through the different systems and increase the reliability of this process.

Results
The analysis led to the identification of several steps within the process that could be improved with low effort for a relatively high gain. In total more than 20 improvements were made based on the analysis results, leading not only to a more reliable order submission process, but also to an average time reduction per order of 50%. As a result, customer satisfaction and loyalty increases.

Approach
Of the 70,000 total submissions, roughly 70% was completed within the allowed time. 22% was completed at around roughly twice the maximum amount of time, 7% within about 6 times the maximum and 1% took even longer. The analysis was focused on the group that was completed in twice the maximum time (22%) which held the largest opportunity to identify the delay drivers. Timestamps were created for different stages in the order submission process combined from multiple source systems. A clustering on deviation from the reference per time stamp was performed.
In the Sell & Service process of the retail value chain analyses are geared towards improving commercial performance and customer centricity.

### Sell & Service

#### Customer Insights
Main goals is to understand customer behavior in order to influence their buying decisions. Use of customer data to identify, describe, and segment unique groups of customer and gaining insights into customer purchasing patterns.

#### Marketing Mix ROI
Analyses focus on determining which marketing investments work and which are less effective. By reducing ineffective spend and intensifying high return marketing tactics, the marketing mix is optimized leading to higher return on overall marketing spend.

#### Promotion Effectiveness
Promotions are evaluated using advanced analytical techniques in order to better understand their effects and to reveal key drivers for effectiveness of promotions. Better understanding of promotion effects can also be used to forecast promotional sales.

#### Store Optimization
Focus on improving insight into store efficiency and performance, through store clustering and benchmarking techniques. Analyses provide insights into the key drivers of inefficient or poor performing stores. Additionally, optimal store set up per segment can be determined based on best practices of efficient stores.

#### Omnichannel Insights
Aimed at improving customer experience by providing a seamless and consistent shopping experience, improving customer loyalty and sales. By tracking the customer across online and offline channels, the customer is placed at the centre of all marketing activities.

#### Personalization
As customers expect an optimal experience, tailored to their needs, personalization aims at relevant and consistent offers and communication towards individual customers. Analyses focus on the lowest granularity in customer insights as well as the context in which the customer dialogue is being executed.
Challenge
In order to build incremental business, McDonald’s Europe realized they must move from mass consumer understanding to insight-based segmented solutions in order to understand purchasing patterns and drive long term loyalty.

Individual transactions across all stores are available now in many markets, and deliver a huge potential to understand more detail about purchase patterns within a transaction in combination with customer behavior. Unable to extract these type of insights from their data, McDonald’s Europe asked Deloitte to assist and derive actionable insights from their transactional data.

Approach
The four key drivers (What, When, Where and Who) of purchasing patterns were investigated by applying two analytical methods to the transactional information.

Market basket analysis solely focuses on product relations and is best suited for tackling the “what driver” of purchasing patterns. Segmentation encompasses the full spectrum of purchasing patterns by analysing all characteristics related to a transaction. Transactions are segmented based on the products sold, the size of the group, time of transactions, order mode etc.

Results
Based on the different analyses, specific actions were identified to build incremental business e.g.:
- Suggestive upsell through self order kiosk and online ordering
- Dynamic pricing for specific product categories
- Tailored promotions aimed at specific segments in selected stores
- Recommended new menu options targeted at specific segments.
Challenge
Multichannel or Omnichannel retailing is the use of a variety of channels in a customer’s shopping experience including their research before a purchase. These channels are generally independent of one another and thus not integrated. As a result they rarely provide a consistent customer experience. Deloitte was engaged in improving return on marketing spend and optimizing the advertising investment mix with disparate departments, differing measuring systems and differing priorities to improve marketing ROI across both offline and online channels simultaneously.

Approach
First the metrics needed for the model were prioritized across products, channels, and categories. A data warehouse was built to hold the required variables for each product that was needed to continuously run the Marketing Mix Modelling. With all the data present, the Marketing Mix Model was developed to optimize marketing ROI by using Scenario analysis and Optimization models. Finally the marketing ROI tracking system was implemented to continuously track the results of the models.

Results
• The most significant result was that the marketing ROI doubled over a two-year period
• To ensure recurring improvement, an investment mix allocation change was implemented
• Finally, there was also a strategy shift to target the most profitable customers.
Case study – Promotional Effectiveness

Improving promotional forecasts to ensure better promotional planning, lower out of stocks, and lower excess inventory

Challenge

This large Dutch retailer experienced high errors in their promotional forecasts compared to actual sales. This was largely due to the fact that the merchandise team was not provided with a solid fact base to create the forecasts. The available method, where a merchandiser had to select a single historical promotion as a reference was cumbersome, time consuming, and caused high uncertainty concerning the accuracy of the forecast. The client asked Deloitte to assist in developing a new method which was more fact-based as well as more time efficient as to free up the merchandiser’s valuable time.

Results

The forecasting model shows more accurate as well as more stable forecasts compared to actuals than the previous method. The error was reduced by 30% adding up to over 8 million of misforecasted items per year. Apart from the increase in accuracy, the time spent to access historical information was drastically reduced. Through the user interface all historical information is at the merchandiser’s fingertips. Finally, by allowing for expert adjustments to the model forecasts, merchandisers feel empowered by the tool instead of overpowered.

Approach

Based on Deloitte’s promotional maturity model and the client’s functional and technical readiness, we delivered a complex forecasting model based on an ensemble of machine learning techniques. This forecast model demonstrated 30% less error than the available method of the client. Apart from developing the model itself, a user friendly interface was created allowing merchandisers to directly interact with the forecast model, by uploading promotional information and requesting a forecast by the model. This forecast can be adjusted (if required) and used in the remainder of the promotional forecasting process.
Case study – Store Optimization
Apple to apple comparison to improve store efficiency and facilitate sharing of best practices between stores

Challenge
As stores are inherently different and operate in different environments under different circumstances it becomes increasingly difficult to fairly compare stores and set the appropriate targets. To improve their insight into store efficiency, this client was looking for a sophisticated method to assess store efficiency and compare the performance between stores. Additionally, the client asked for insight into the key drivers of inefficient on a store level.

Approach
To ensure apple to apple comparison, we first segmented the stores based on store characteristics, store performance and market place environment. This entails that stores within the same segment compete within the same circumstances. Next we applied an advanced analytics technique, data envelopment analysis, to develop a sophisticated benchmarking method. Each store is compared to a number of comparative (peer) stores and the relative efficiency of that store is determined based on the peer performance.
Finally, intervention plans were delivered to improve efficiency on a store level.

Results
The store segmentation provided new and more detailed information than the old way of looking at store groups. All segments were validated with the client and resonated with business experts. The benchmarking and efficiency scoring of stores provided increased insights and provided a validated improvement potential of more than €10 million. Based on the benchmark scores and the intervention plans, new targets were provided to stores to improve performance. Also, stores were informed about their peer store locations to facilitate knowledge sharing and copying of best practices.
In the Support process of the retail value chain analyses are focused on determining potential improvements in the organization.

**Workforce Analytics**
Encompasses workforce planning and analytics across all phases of the talent lifecycle. The workforce planning component provides insights and foresight into addressing current and future talent segment related challenges and development. Moreover, this offering applies analytics solutions to key talent processes.

**Sustainability Analytics**
Helps clients with sustainability related strategies such as assessing future environmental and health impacts. Using an overview of the most important resources and an insights in the product lifecycle, a prioritisation can be made which product categories are most at risk and which show the most potential.

**Finance Analytics**
Working capital, spend analytics, double payment
Helping clients to get control of their financial data, finance analytics enable clients to model business processes and gain deeper insight into cost and profitability drivers.

**Risk Analytics**
Help clients to understand their risk exposure better, and to proactively identify and mitigate sources of risk on an enterprise scale. Armed with this information, executive management and boards will be better equipped to navigate challenging economic conditions.

**Program/portfolio analytics**
Enables clients to model their program/portfolio performance by providing fact based insight into the performance of the total portfolio down to project level. Among other things, it allows clients to prioritize projects better, identify potential budget overruns in an early stage and optimize resource allocation.

**Tax analytics**
Tax regulations change all the time. Using Tax analytics, quick scans are be made to check if clients are compliant with new regulations and helps them with implementations.
### Challenge

Clients experience a continuously changing environment in which they have to operate. Within this environment new products and new sales channels are discovered. In order to be able to gain full advantage of these new opportunities a variety of new skills within the workforce are needed.

### Approach

Using data from different sources such as People-, Customers-, Work- and Finance data, insights can be derived in:
- Identifying critical workforce segments. Mapping segments/skills that drive a disproportionate amount of value creation in comparison to their peers
- Identifying current demand drivers and defining a demand model
- Defining and executing a workforce planning to analyze gaps in the current supply and demand for critical workforce.

### Results

Clients get a view of how they should move from the current workforce to the workforce needed in 5 years from now. The approach used makes sure that clients can use evidence based decision making supported by a variety of fact based workforce planning tools.
Sustainability analytics can help companies reduce key resource use and at the same time making them less vulnerable to price and supply volatility. Future risks and opportunities can be identified in areas such as environmental and health impacts – both within the organization and across the extended supply chain. The challenge lies in generating the most influential insights from relevant data. These insights are necessary to develop sustainability related strategies and to improve overall (resource use) efficiency.

**Results**

- Prioritization of product categories: an identification of the top product categories and a prioritization of categories with most improvement potential.
- Reduction product analysis: Development of an implementation strategy and value propositions for the opportunities of the highest prioritized product groups (how to reduce costs, increase customer preference and reduce risk).
- Supplier ranking: Ranking of suppliers based on sustainability performance to create individualized “sustainability report cards” which can be integrated in category buying decision making.

**Approach**

The approach is divided into three actions:

- Develop a normalized and comprehensive view of resource use to understand (and prioritize) the hot spots
- Conduct a comprehensive analysis of products/services lifecycles to quantify the risks/opportunities
- Align/develop a sustainability strategy using the results of the executed analyses.

**Challenge**

Sustainability analytics can help companies reduce key resource use and at the same time making them less vulnerable to price and supply volatility. Future risks and opportunities can be identified in areas such as environmental and health impacts – both within the organization and across the extended supply chain. The challenge lies in generating the most influential insights from relevant data. These insights are necessary to develop sustainability related strategies and to improve overall (resource use) efficiency.
Case study – Working capital

“The Dash for Cash”: Using the Deloitte WCR Cashboard to drive sustainable performance improvements in working capital

Challenge

As companies try to stay their course in the downturn and beyond, cash is back as king. Working capital is one of the few remaining areas which can rapidly deliver a significant amount of cash to a business without a large restructuring program.

The client asked Deloitte to help in the challenge to free up working capital. Reducing working capital in the short term is fairly easy; making reductions sustainable and changing the mindset in operations to that of a CFO is more difficult.

Approach

To enable sustainable reductions, Deloitte deploys a cash-oriented, entrepreneurial approach to working capital management that focuses on concrete actions and creating a “cash flow mindset” to shorten the cash conversion cycle. The Cashboard™ is a flexible & configurable dashboard that is powerful but still exceptionally easy to use. As such, it allows frontline operations staff at companies to zoom in on the key opportunities, risks, trade-offs and root causes. Project teams can capture tangible results quickly and sustainably by monitoring progress against targets.

Results

- It enables continuous monitoring of the working capital levels throughout the entire company – including all Business units and all geographies
- The interactive environment enables context driven analysis by time, customer, product, business line etc.
- Real time insight into current performance facilitates quick and right response to free up cash from operations
- Easy to use for any business executive
- Easily adjustable and expandable to your company’s specific needs
Case study – Spend Analytics

Deloitte Spend & Procurement Analytics provides deep insight in the composition of the volume of spend and identifies key savings opportunities.

Challenge

The client was struggling with identifying improvement opportunities because of inaccessible information. As a result, the client was unable to drill down and analyze individual orders and problem solving was limited to the strategic level.

The client asked Deloitte to help identify opportunities for continuous improvement for cost reduction and provide additional insights into the spending trends of the organization.

Results

Through the Spend & Procurement Analytics Dashboard efficiency and savings opportunities can be identified in several areas:

• Improve process efficiency by identifying fragmented spend and invoicing
• Identify and expel maverick buying
• Negotiate better contracts
• Reduce costs by optimizing the purchase to pay process.

Approach

Our Spend & Procurement Analytics approach facilitates short time-to-deploy and delivers easy-to-use insight. This proven approach contains the following key components:

• Easy upload of the company’s procurement data through standard interfaces
• Engine to create a bottom up calculation of your company’s most important Spend KPIs
• Interactive dashboard enabling context driven analysis by time, supplier, product, business line.
Case study – Double Payments
Because paying once is enough!

Challenge
Who pay their invoices twice? Well, for one, all major organizations in 1% of the cases. They usually know this but have no means for pinpointing exactly which invoices are paid twice.

Many organizations check for invoices paid twice, but rarely detect them all. This can be caused by inaccurate master data or errors due to invoice entries. The organization asked Deloitte to help in detecting double payments in a better way.

Results
The Deloitte Double Invoice Tracker saves money and helps improving master data quality, by giving:

• An overview of all the invoices paid twice, including supplier information, so the restitution process can be started immediately
• Insights into the master data quality
• Insights into the aggregate purchasing expenditures and how these are divided.

Approach
The Deloitte Double Invoice Tracker examines all individual invoices, over multiple periods in full detail. The Invoice Tracker detects inaccuracies in the master data by using specially designed algorithms.

By cleverly cross-referencing inaccuracies in the master data with those in the invoice entries, the Double Invoice Tracker can find lost cash and insights into the master data quality.

Double invoice tracker

Because paying once is enough!
Solution – Program Portfolio Analytics

Deloitte’s iPL solution enables timely monitoring by disclosing project portfolio performance anytime anywhere.

Challenge

Typical challenges that an organization faces relating to monitoring the portfolio performance:

- Getting performance reports is very time consuming and therefore the frequency of delivering these reports is usually low
- The reports created are static and therefore provide no possibilities to analyze into a detailed level and from different perspectives
- Decision making is mostly based on one dimension only (e.g. time or budget spent).

Approach

Deloitte’s iPL solution is aimed at fact based prioritization and tracking of project performance and enables financial, resourcing, risk and issue analyses.

iPL combines data from multiple sources and visualizes the results in an interactive analysis environment which can be accessed online.

Results

Organizations can benefit from iPL by:

- Prioritizing based on the progress made and effort utilized by projects
- Proactively managing potential underperforming projects
- Better predicting the cost at the completion of the project based current performance
- Resource gap analysis and earned value analysis (budget spent vs value delivered).
Project Approach
Our Analytic Insights project approach

Our comprehensive and flexible methodology for Analytics projects ensures we can deliver business critical insights within time and budget.

A typical Analytic Insights project takes 8-12 weeks following three main phases connected to our approach:

1. Understand
   - Assess Current Situation
   - Acquire & Understand Data
2. Analyze
   - Prepare & Structure Data
   - Analyze & Model
3. Insights
   - Evaluate & Interpret
   - Report & Implement

Approach
Our structured approach has been built up from our experience in analytical engagements. It comprises of 6 steps to maximize project oversight. Each step allows looping back to previous steps to apply the insights gained in subsequent steps.

Critical success factors
To ensure maximal knowledge transfer in both ways we would need to work closely with key experts in client’s business and IT departments. Rapid access to potentially disparate source data and support in understanding the data is essential in order to build up the data structures required for the analytical models.
Deloitte maintains a market-leading global Analytics practice with extensive experience in retail

We understand what your challenges are as well as the current and future analytics market, placing Deloitte in a unique position to assist you

Global Reach

- With over 9,000 BI and analytics resources worldwide, we are recognized as one of the leading BIA service providers
- Unique combination of deep industry expertise, analytics capability and understanding of decision-maker’s roles to maximize value

Vendor independent

- We recognize the importance of the right technology, but we also understand the necessity of finding pragmatic and efficient ways to iteratively build the required capabilities
- Our relationships with, and understanding of, technology vendors is strong, covering an impressive range of different products – but, crucially, we remain vendor independent.
- We are focused solely on helping clients to develop a practical Information and Analytics strategy – incorporating the necessary technologies and introducing the most appropriate vendors.

Recognized leader in Analytics

- “Deloitte shows growth and innovation leadership through investment in acquisitions (with 22 analytics-related acquisitions since 2010), technology partnerships, alliances and intellectual property.”
- “Deloitte has a strong focus on innovation, including Deloitte’s Insight Driven Organization (IDO) Framework, breakthrough labs to meet clients’ demands, and Highly Immersive Visual Environment (HIVE) labs, as well as a breadth of analytics accelerators.”
- “All is available through its global network of 21 Global Delivery Centers and 25 Deloitte Greenhouses.”

Experienced in Retail

Source: Gartner, Magic Quadrant for Business Analytics Services, Worldwide. September 2015
Deloitte Greenhouse offers different types of immersive analytics sessions

**Analytics Lab**

The Analytics Lab, hosted in Deloitte’s innovative Greenhouse environment, is an inspiring and energetic workshop to uncover the impact of data analytics and visualization for your organization. Participants are provided with a unique opportunity to experience hands-on analytics in a fun and innovative setting, facilitated by Deloitte’s industry specialists and subject matter experts.

**Art of the Possible**

An inspiring two-hour session including analytics and data visualization demos, used as a starting point for an open discussion on the potential impact of analytics for your organization.

**Visioning**

A collaborative session to wireframe a custom analytics or visualization solution, supporting a selected business challenge. The session is facilitated by Deloitte’s user experience, data visualization and analytics experts.
Privacy by Design
Incorporate privacy (and security) in the design process of the data analytics application

Privacy by Design

The Privacy by Design (PbD) concept is to design privacy measures directly into IT systems, business practices and networked infrastructure, providing a “middle way” by which organizations can balance the need to innovate and maintain competitive advantage with the need to preserve privacy.

It is no flash-in-the-pan theory: PbD has been endorsed by many public- and private sector authorities in the European Union, North America, and elsewhere. These include the European Commission, European Parliament and the Article 29 Working Party, the U.S. White House, Federal Trade Commission and Department of Homeland Security, among other public bodies around the world who have passed new privacy laws. Additionally, international privacy and data protection authorities unanimously endorsed Privacy by Design as an international standard for privacy.

Adopting PbD is a powerful and effective way to embed privacy into the DNA of an organization. It establishes a solid foundation for data analytics activities that support innovation without compromising personal information.

Deloitte took the basic principles of PbD and built them out into a full method that can be used to apply privacy to almost any design – whether it is IT-systems, applications or products, the latter specifically significant now that the Internet-of-Things is coming upon us.

Reasons

- Effective way to make sure compliance is reached already in the design phase (and maintained)
- Efficient: accommodating privacy enhancing measures is cost effective in the early stages of design
- Time available to do adjustments / look for alternatives

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