



PREDICTIVE ANALYTICS AND MACHINE LEARNING

SUCCESS STORIES

**LEARN HOW COMSENSE CUSTOMERS ARE LEVERAGING
AI-POWERED PREDICTIVE CUSTOMER ANALYTICS AND MACHINE
LEARNING TO REVOLUTIONIZE CUSTOMER ENGAGEMENT**

We Eat Elephants For Breakfast!

- **BI Dashboards: 110+**
- **Emails Sent: 2Bn+**
- **Customer Records: 185 Mn+**
- **Processes Automated: 120 +**
- **Mobile Devices: 75 Mn+**
- **Predictive Models: 115+**
- **Integrations: 35+**

EXPERIENCE THE COMSENSE DIFFERENCE

Comsense Technologies is a global consulting firm run by Ex. Directors from **Big 4 Consulting** and Fortune 500 companies. We bring solutions that combine the power of Robotic Process Automation, Predictive Customer Analytics and Cognitive Marketing Technology with a focus on **BFSI, Retail, Media and Healthcare** industries.

We empower businesses to engage with their customers, seamlessly exchange data, automate processes, predict next-best actions, improve productivity and save costs. We provide cutting edge solutions to the offices of CMO, CIO & CFO.

Besides a state of the art Development Centre in Pune and offices in USA, Germany, South Africa & Singapore, we have a highly enthused and creative team of 150+ artists, engineers, data scientists, marketers and marketing technologists, who deliver results on solid foundation of **Extreme Ownership**.



CASE STUDY 1

**A LEADING MULTINATIONAL
CHAIN OF PATHOLOGY LABS
& DIAGNOSTICS CENTERS
ENABLES OMNI-CHANNEL
CAMPAIGN AUTOMATION
RESULTING IN **8X INCREASE**
IN ROI IN LESS THAN 8
MONTHS**



BUSINESS CHALLENGE

The client, a leading chain of pathology labs, wanted to create a Single view of the Customer and refine their customer segmentation. They required real-time data insights and execution to reach customers at the right time with the right message. They also desired **increased revenue contribution from marketing - from 20% to 40%** - within a year.



APPROACH & SOLUTION

- The solution helped address key challenges through **advanced analytics and provided insights** into customers' diagnostic needs so the client could deliver timely alerts to the pathologist.
- It highlighted the customer journey and **customized next-best actions during every interaction** and used a solution data model, reporting and dashboard templates, and predictive and campaign management solutions to interface with operational systems.
- It used enterprise and third-party data that was related to the client, historical and current transactions to provide **insights to create tailored offerings for every test**, and improve the overall customer experience



BUSINESS IMPACT

- 30% incremental revenue within the loyalty customer segment
- Real-time customer intelligence

Technology / Tools:

Watson Campaign Automation, UBX , IBM SPSS, DB2, Cognos, Watson APIs, IBM Integration Bus, ETL

CASE STUDY 2

**THE CLIENT IS A MEDICAL
DEVICE'S LEADER, DEVELOPING
MORE THAN 1,000 INNOVATIVE
PRODUCTS & PROCEDURES/YEAR,
USES PREDICTIVE CUSTOMER
ANALYTICS **TO UNCOVER
INSIGHTS TO BOOST
UP-SELL & CROSS-SELL.****



BUSINESS CHALLENGE

The client sells **14,000+ products**. For any technique/procedure a set of products needs to be purchased but in many cases it was observed that the **customer were making a singular purchase**. This implied that related products were being purchased from the competitor. The client needed to **dive deep into data** and utilise that data to **empower sales rep** to make instant **data-driven decisions** to boost up-sell & cross-sell.



APPROACH & SOLUTION

A **Single View of Customer** and a technique prediction model was developed by Comsense data scientists that allowed the client to:

- Identify which surgical techniques does a customer conducts most
- Identify products that are a part of **certain techniques the customer conducts but doesn't use the entire product suite**
- Identify and display open sales potential
- Identify these **buying gaps**
- Identify and propose **up-selling** products



BUSINESS IMPACT

- Top 13% of the customers represented 72% of the total revenue
- Overall 14% of the customers were single transactors
- 16% of customers were lost by second transaction
- Probability of repeat purchase increased to 97% by 13th transaction

Technology / Tools: | SPSS, Watson, Cognos

CASE STUDY 3

**THE 2ND LARGEST
SPORTSWEAR COMPANY
IN THE WORLD USES
PREDICTIVE ANALYTICS AND
MARKETING AUTOMATION
FOR ITS 20 MN+
CUSTOMER BASE**





BUSINESS CHALLENGE

The client wished to leverage its customer transactional data to further **refine and personalize its communication** to enhance customer experience and drive better business outcomes. Client wanted to create an array of customer segments to **uncover how each segment is responding** to their campaigns. The overarching strategy is to convert shoppers into brand ambassadors.



APPROACH & SOLUTION

The Comsense team started off with creating a **unified marketing data lake** to consolidate all the customer data.

The customer profiles/persona based on advanced segmentation were created by integrating the transactional, demographic, and behavioral data. Applications such as basket analysis, data-driven tree analysis, retail promotions tool, and CLTV modeling were used by data scientists that enabled:

- **Dynamic segmentation** based on a combination of various demographic data and behavioral data
- Predicting customer purchase behavior to target and personalize communication
- Creating a predictive cross-sell model and customer reactivation model to **enhance the customer lifetime value**



BUSINESS IMPACT

- Dynamic segmentation improved revenue via net new customer acquisition by 4% within two months
- Single view of the customer ensured targeted marketing and optimized communication
- Marketing attribution and channel optimization in turn saved almost 23% from marketing campaign costs
- Improvement of core operations enabling an easier launch of newer business models
- Improved wallet share per customer by 3% within 3 months of implementing recommendation engine

Technology / Tools: Python, SQL, Power BI, Watson APIs, Integration Bus, Kleanmail, Datasense



CASE STUDY 4

**LEADING PROVIDER OF
BEAUTY & SKIN CARE
SOLUTIONS CREATES A
SINGLE VIEW OF CUSTOMER
(SVOC) FOR REAL-TIME
DECISION MAKING &
BOOSTS CROSS-SELL &
UP-SELL BY 23%**



BUSINESS CHALLENGE

C-level executives were demanding a **Single View of Customer (SVOC)** to enable their customer-centric growth strategies. The IT teams were struggling to provide this despite an array of MarTech platforms in place. It was becoming increasingly **difficult for C-level representatives to make informed decisions** due to the lack of management dashboards with real-time data that could provide a holistic view of their business and customer segments.



APPROACH & SOLUTION

Given the siloed data sets, Comsense data scientists & marketing technologists **created a closed-loop integration across channels** and systems with the scalable ETL capabilities in the Predictive Analytics platform.

This enabled the client to integrate data from multiple applications. For C-level representatives, 10 unique and interactive dashboards were created by leveraging advanced analytical algorithms such as AI, ML, and Forecasting.



BUSINESS IMPACT

- C-level executives were able to make real-time business decisions with the analytics dashboards
- Sophisticated customer segmentation led to successful targeting, acquiring, developing, and retention of customers
- Unique insight into their customers' digital footprint
- Significant cost reduction and risk management, and an increase in revenue and profitability
- Cross sell & up-sell revenues increased by 23% within six months of implementation

Technology / Tools:

IBM SPSS, DB2, Cognos, Watson APIs,
IBM Integration Bus, ETL

CASE STUDY 5

**THE WORLD'S LARGEST
E-MARKET FOR STEEL
ENHANCES ACCURACY ON
PREDICTIVE PRICING FOR
FORWARD AUCTION BY
83% & CROSS-SELL
TRANSACTIONS BY 37%**



BUSINESS CHALLENGE

The company was spending a significant amount of time on pricing calculations and aligning bidders for auctions. With more than 15 auctions every month **the cumulative time and effort for each auction significantly hampered efficiency and accuracy.**



APPROACH & SOLUTION

Comsense **leveraged advanced analytical algorithms** such as ML, AI, Forecasting and Statistical Modeling to develop a robust model for optimal decision-making in:

- **Bidder Recommendation:** Suggested potential bidders relevant for future auctions and the appropriate communications channel for use. Based on potential bidders the client could arrive at the best bid price for future auctions.
- **Price Estimation:** Suggested a potential base price that led to better pricing for an auction and better response rates from potential buyers. Based on the estimated price potential bidders to be approached were identified prior to the auction.
- **Cross-sell recommendation:** Besides increasing the share of wallet of existing bidders the model also helped the client increase CLTV and bidder loyalty.



BUSINESS IMPACT

- Optimized auctions by predicting bidding behavior
- Allowed auctioneers to make better decisions in the auction market
- Ease of data-driven decision-making in complex auctions
- Increase in CLTV and decrease in customer acquisition cost
- Ability to predict pricing with 83% accuracy

Technology / Tools:

IBM SPSS, Cognos, Watson APIs,
IBM Integration Bus, DB2



CASE STUDY 6

**A LEADING SIGHTHOLDER
OF THE DIAMOND GROUP
OF COMPANIES LEVERAGES
PREDICTIVE ANALYTICS FOR
PRICING PREDICTION**



BUSINESS CHALLENGE

With an annual production capacity of 700,000+ carats, the client relied heavily on conventional techniques such as **guess-based forecasting for the pricing prediction of diamonds and stones**. This manual process was time-consuming and the possibility of errors remained high. The client was at a distinct disadvantage as they could not leverage the power of Big Data to outperform increasing competition.



APPROACH & SOLUTION

Taking into consideration the analysis of the price of a diamond/stone vs. its carat weight, **Comsense established pair-wise variable relationships** with the given data set.

Observing patterns on cut, color, and clarity, insights into how these factors influenced pricing were provided.

A data lake was created by consolidating customer data from varied sources like auction portals, CRM, and login behavioral data. In addition, Watson APIs integration with paid subscription websites provided data on B2B customers and diamond/stone demand and pricing trends.

Machine Learning and AI models were applied to create statistical predictive models to predict pricing in real time.



BUSINESS IMPACT

- The predictive model reflected 95% precision and 99% accuracy in pricing prediction
- Better prediction led to better future business planning
- Increased efficiency in supply chain and inventory management

Technology / Tools:

IBM SPSS, Cognos, Watson APIs,
IBM Integration Bus, ETL



CASE STUDY 7

**LARGEST RETAIL GROUP
IN NEW ZEALAND USES
PREDICTIVE ANALYTICS FOR
PROACTIVE SOLUTIONS ON
REAL-TIME DATA**



BUSINESS CHALLENGE

The client wished to leverage its data of suppliers, store locations, website, social media, and customer purchasing and lifestyle behavior to drive better business outcomes. As there was no mechanism in place to track current and future selling, **the client was struggling to uncover what customers would buy and how to turn one-time shoppers into brand loyalists.**



APPROACH & SOLUTION

Comsense **created a data lake to consolidate all the customer data** from various sources such as portal data, in-store Point of Sales data, CRM transactional data, website and app login behavioral data, marketing campaign data, including email-open rates, clickthrough rates and coupon codes redemption data. Customer profiles/personas based on advanced segmentation were created by integrating the transactional, demographic, and behavioral data. Applications such as basket analysis, data-driven tree analysis, retail promotions tool, and CLTV modeling were used to:

- **Create dynamic pricing** for the range of products
- **Predict customer purchase behavior** to target and personalize communication
- **Create a predictive cross-sell model** to enhance CLTV



BUSINESS IMPACT

- Dynamic pricing improved revenue via net new customer acquisitions by 7% within three months
- Insight-driven sales transformation led to sales increase by 6%
- Seamless transition from silos (“in-store pricing”) to closed-loop integrated solutions (“cross-channel offers”)
- Simplified launch of newer business models with an improvement of core operations
- Leveraged cognitive analytics to make evidence-based decisions

Technology / Tools:

IBM SPSS, Cognos, Watson APIs,
IBM Integration Bus, ETL



CASE STUDY 8

**ONE OF THE LARGEST
AUTOMOTIVE COMPANIES
USES **PREDICTIVE ANALYTICS**
FOR CUSTOMER RETENTION
AND CROSS SELLING
ACCESSORIES AND SERVICES**



BUSINESS CHALLENGE

The client wanted to understand its customer segments better and **build customer retention strategies** based on robust data intelligence. The overarching strategy was to increase the per customer wallet share in accessories and services line of business



APPROACH & SOLUTION

DATA AUDIT

- Collected complete customer data
- Data Completeness and Quality Check using data audit tools
- High Level **Predictive Models** for each thrust area using **data science tools**
- Tool driven Insights for target customer segments

SOLUTION DESIGN

- Use Case wise Target Customer Segments
- Use Case wise **Customer Engagement Models**
- Detailed SOPs with to be process, RACI matrix with Clear SLAs & KPIs



BUSINESS IMPACT

- Target customers to cross-sell accessories - Model derived rules identified high conversion potential
- Insight-driven sales transformation led to a sales uplift of 13%
- Service Attrition Propensity Model helped company avoid future loss of services business
- Accuracy of Predicting Repeat Sale: 50% with 72.3% Precision
- Improvement of core operations enabling an easier launch of newer services models

Technology / Tools: IBM SPSS, DB2, Cognos, Watson APIs, IBM Integration Bus, ETL

CASE STUDY 9

**LEADING TAXI COMPANY
(WITH 10 MN+ RECORDS)
LEVERAGES PREDICTIVE
ANALYTICS TO **REDUCE**
MARKETING SPEND AND
CUSTOMER CHURN**



BUSINESS CHALLENGE

Conventional marketing and analytical platforms were consistently **failing to provide the client with accurate and timely insights**. With more than 10 Mn+ records, multiple taxi categories, a growing loyalty base, and a significant number of trips per day, the client was in need of a robust analytics platform that would ensure better performance through data and empower them to make informed decision by :

- Predicting customer churn on the loyalty based
- Predicting customer purchase behavior to target and personalize communication
- Creating the next best customer segment for better ROI on marketing investments



APPROACH & SOLUTION

Comsense data scientist with deep industry, functional and analytics proficiency **applied advanced analytics modeling techniques** leveraging AI, ML, and Forecasting, to help the client again meaningful insights from the data. This was undertaken in the following manner :

Creation of Data lake to consolidate all customer data from various sources like website, CRM, App login behavioral data, FB messenger usage data, etc.

Watson API integration with FB Messenger (as this was a major source for customer bookings) to analyze data in real time and target offers based on customer profiles

Analysis of historical and present data to arrive at a new data-driven approach

Building a new cohesive data strategy and algorithms based on documented patterns that could be leveraged within the current technology



BUSINESS IMPACT

- Reduce marketing spend by ~63% within three months
- Reduced customer churn by 27% from previous quarter and an increase in per customer revenue by 13%
- Significant cost savings

Technology / Tools: IBM SPSS, Cognos, Watson APIs, IBM Integration Bus, ETL

CASE STUDY 10

**LARGEST SATELLITE TV
SERVICES COMPANY IN
MAURITIUS **REDUCES CHURN**
BY 11% USING PREDICTIVE
ANALYTICS**



BUSINESS CHALLENGE

The client wanted to draw insights from their data to clearly understand the **factors that are influencing customer churn** and wanted to take all proactive steps to reduce it, thereby securing the future revenues and to **increase the customer lifetime value**.



APPROACH & SOLUTION

- The Comsense datascience team created a data lake to **consolidate all the customer data** from various sources such as portal data, transactional data, and app data, marketing campaign data
- The customer profiles/persona based on advanced segmentation were created by integrating the said data that included **analyzing unstructured data** like complaint data.
- The data science team then bucketed various parameters that were influencing churn using **Classification and Regression (C&R) Tree node** which is a tree-based classification and prediction method.
- Decision List models identified subgroups or segments that showed a higher or lower likelihood of a binary (yes or no) outcome relative to the overall sample.



BUSINESS IMPACT

- Dynamic churn prediction model helped company to reduce churn by 11 % in less than five months
- Insight-driven services transformation led to a sales uplift of 14%
- Improvement of core operations focused on managing key factors influencing churn
- Strong improvement in customer experience scores and NPS by 1.5 X

Technology / Tools: Python and R, Amazon Redshift, Power BI, Rest APIs, Datasense for data exchange



TESTIMONIALS

“

This group rocks! When I was willing to go for minimum viable project, they pushed for something better. In the end, their idea was really better because it completed the loop and it helped us generate the desired results

Amelita Tamayo,
Marketing Adviser, Standard Insurance, Phillipines

“

They are the best when it comes to Marketing Automation services. They are Professional, Knowledgeable and highly creative bunch of marketing technologists who have helped us build and execute great campaigns that has got our company many qualified leads that converted!

Sanjay Jalagam
MD, Element Blue, Dubai

“

There is an excellent team of results-driven data scientists who not only understand client needs but are also very proactive. Across all the touchpoints the quality has been of very high standards. They are the first firm I call for any data science related projects

Amit Goel,
CIO, Metropolis Healthcare, India

“

The caliber of the representatives that we've had conversations with has been excellent

Uzair Faruqi
Head of Analytics, mjunction (World's largest e-market for steel & chemicals), India

“

The amount of industry knowledge and expertise in required technologies for such a young company was impressive

Cururaja Murthy,
IT Director Swissotel, Japan

Let's Think
together

comsense[®]
Bridging Technology & Business



Throw Us A Challenge

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