Telecom analytics
Advisory, India
Analytics
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Why analytics?

The fast-paced marketplace of today demands rapid decisions more than ever. These decisions must be based on facts. These facts are buried deep within considerable volumes of complex business data of the organisation. How can substantial volumes of data from structured and unstructured sources be interpreted? The solution is to find patterns and relationships beyond the data and analytics acts as a driving force for this.

Key points and advantages:
- 360 degree view of the organisation
- Identify hidden patterns, behaviours and relationships in the data
- Support business strategy and planning
- Identify opportunities to optimize costs across the value chain
- Predict demand in networks
- Provide better insights for improved decision making
- Equip the organisation to have cross-channel communication

Need for Analytics in the telecom industry
Telecom companies that want to be innovative and maximise their revenue potential must have the right solution in place so that they can harness the volume, variety and velocity of data coming into their organisation and leverage on actionable insights from that data.

Telecom companies are sitting on terabytes of data that are stored in silos and scattered across the organisation. For simpler and faster processing of only relevant data, telcos need an advanced analytics driven data solution that will help them to achieve timely and accurate insights using data mining and predictive analytics.

Key points:
- Increase sales
- Reduce churn and fraud
- Improve risk management
- Decrease operational cost
- Improve visibility into core operations, internal processes and market conditions
- Discern trends and establish forecasts
- Cross-sell/up-sell products and service plans
- Analyse customer loyalty and wallet share
- Build predictive models for fraud detection and customer exits

Real-time scenarios:
- A leading telco in SE Asia uses data analytics to improve effectiveness of promotions by 600%
- A large telecom player in an emerging market deploying data analytics to improve marketing offer acceptance rate from 25% to 50%
- An European telecom company says its data traffic is doubling every six to eight months
- An American telco leverages data analytics to put real-time intelligence and control back into the network driving a 90% increase in capacity
- An American communications service provider uses data analytics to improve customer experience, which resulted in current savings of US$15 million per year

(Source – EY research)
Analytics across an enterprise

Customer management
- Customer segmentation
- Customer sentiment analysis
- Churn analytics
- Delinquency analytics
- Customer satisfaction and loyalty
- Customer lifetime value
- Customer experience
- Credit scoring
- Behavior modeling

Sales and distribution
- Cross sell/up sell
- Retail commission
- Sales analytics
- Partner analysis
- Sales force effectiveness
- Vendor management
- Demand forecasting
- Inventory management
- Service planning and support
- Logistics analytics

Marketing management
- Pricing analytics
- Campaign management
- Social network analytics
- Channel analytics
- Customer acquisition
- Marketing mix optimisation
- Customer segmentation
- Demand forecasting
- Market penetration analysis
- Market segmentation

Network management
- Network utilization
- Capacity planning
- Contract risk analysis
- Traffic volume forecasting
- Call route optimisation
- Capacity management
- Performance management

Support functions
- Employee attrition analysis
- Retention risk and impact analysis
- High performer analysis
- Contact centre analysis
- Customer service effectiveness
- MIS and dash boarding
- Continuous monitoring
- Optimisation
Challenges faced in telecom

Analytics enables us to address more than 50% of challenges faced in the telecom industry. The key insights provided by analytics, coupled with its robust functionality, will be the differentiating strategy for the future.

The business risks of primary concern are model overhaul, regulatory issues and privacy issues.

<table>
<thead>
<tr>
<th>Failure to realize new roles in evolving industry ecosystems</th>
<th>Ignoring new imperatives in privacy and security</th>
<th>Failure to improve organisational agility</th>
<th>Lack of data integrity to drive growth and efficiency</th>
<th>Lack of performance measurement to drive execution</th>
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<tbody>
<tr>
<td>Failure to understand what customers value</td>
<td>Inability to extract value from network assets</td>
<td>Poorly defined inorganic growth agenda</td>
<td>Failure to adopt new routes to innovation</td>
<td>Failure to price effectively for value</td>
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<td>Poor engagement with suppliers</td>
<td>Failure to connect industry growth with socioeconomic gains</td>
<td>Failing short of robust investor relations</td>
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Failure to understand what customers value

Failure to adopt new routes to innovation

Lack of performance measurement to drive execution

Failure to price effectively for value

Failing short of robust investor relations
Where can organisations start?

Organisations can start off with the basic steps of analytics such as Descriptive and Diagnostic analytics, since these help to obtain a complete overview of the organisation. They contribute toward the objective of improved decision making.

Descriptive analytics

Why?
- Descriptive analytics helps to understand the relationship between customers and products and the objective is to gain an understanding of what approach to take in the future — learn from past behaviour to influence future outcomes.

What?
- It refers to a set of techniques used to describe or explore or profile any kind of data.
- Descriptive analytics answers the question, “What happened?” It looks at data and information to describe the current business situation in a way that trends, patterns and exceptions become apparent.

How?
- It involves standard and ad-hoc reporting, dashboards, queries and alerts.
- It is applicable to a broad range of situations such as analysing customers, markets, campaigns, and even product life cycles.
- It divides the data into minimal data sets or subsets of large data sets.

Diagnostic analytics

Why?
- Diagnostic analytics reveals why performance was lagged in some areas and excelled in others.
- It provides patterns and clues to determine if there is a correlation between two events.
- It helps organisations understand key metrics and demonstrate the difference between types of data that can be collected and reported.

What?
- Diagnostic analytics answers the question, “Why did it happen?” This is the next level of analysis where the data elements are further analysed to get to the root cause of the problem.

How?
- It provides easy to read dashboards of quantitative and qualitative format.
- It gives a pattern analysis that provides a comparison and benchmark.
- It gives customised insights and recommendations based on each client’s data and business drivers.

The next level of analytics, i.e., Predictive and Prescriptive analytics predict and provide forecasts by building business rules and models that optimize business functions. All these elements can be amalgamated into a Center of Excellence for Analytics that will drive the business strategies of the organisation.
Advanced analytics

Why?
- With increased competitiveness, business regulations and customer fluctuations, Advanced analytics provide a significant competitive edge by moving toward real-time decision making in a customer-centric telecommunication business.

What?
- Advanced analytics applies specialized technology to the data and have a fresh perspective unlocking a whole new dimension of thoughts and ideas.
- It efficiently bundles the right set of product offerings for customers by analyzing customer needs.
- It develops a marketing program and a budget that fits projected outcomes

How?
- Proactive measures can be introduced to prevent customers from churning out and looking for alternatives.
- It would help in identifying trends including likely behaviors of customers, partners and competitors.
- Simulation techniques help in obtaining a glimpse into the future, which is now widely used in decision making.

Set up and drive COEs

Why?
- It reduces the cost of providing BI, analytics and data services; integrates business and IT-based services on a shared process.
- It is a consistent, reliable way to estimate and execute large BI, analytics and data programs.
- It is an industrialised, distributed approach to delivering Data, Information Management, Analytics & BI programs.

What?
- It promotes a permanent and formal organisational structure, staffed by individuals from the business and IT, with defined tasks, roles, responsibilities and processes, supporting and promoting effective use of business intelligence, information management, analytics and data to drive the business strategy.

How?
- Estimation process
- Prioritization process
- Demand management process
- Delivery process
Our services

EY Analytics Service Delivery Model

One-off engagement model

- Understand the business need
- Define scope of the engagement
- Build analytics catering to the client’s requirements
- Engage with the client directly or through other EY SSLs

Analytics as a service

- Provide Analytics as a service for the contracted period of time
- Act as the analytics team for the client
- Work on a wide range of multi-faceted projects
- Engage with the client directly

Enablement

- Enable the client to perform analytics in house
- Understand the client’s requirement and assist the client team to develop, integrate and implement analytics in their environment

Examples of analytics in telecom

Descriptive and Diagnostic Analytics
Telecom players can use descriptive analytics in call charging to identify revenue leakages. And by performing diagnostic analytics they can identify the incorrect rate plan configurations.

Advanced Analytics
The existing subscriber base of a telco can be analysed to identify the characteristics of users of various services. This can then be used to identify potential targets for cross-sell using statistical techniques.

The EY Advantage

EY’s Analytics repository of KPIs and Advanced Analytics frameworks/data models/toolkits supported by EY’s sector and domain knowledge help organisations jump start their analytics journey.

Sector:
- Sector aligned competencies and experienced team providing sector-specific solutions
- Knowledge of sector-specific issues and business needs

Domain:
- Domain-specific competency and experienced domain SMR’s coming from both industry and consulting background

Analytics:
- Resource pool, which is experienced in visualization, statistics and analytical modelling
- Access to repeatable components and repository

IT Enablement:
- Capability to deliver end-to-end, single window solutions and services across most technology platforms

1. Our Telecom Analytics repository includes a list of 2000+ KPIs across customer, marketing, network, sales, supply chain and support functions.

2. Provides support by our proprietary KPI Galaxy Management method to address evolving KPIs and reporting needs and gives us a jumpstart in developing insightful CXO and operational dashboards.

3. With experience of 50+ telecom Analytics engagements, we create a rich repository of Solution Accelerators including Data Models and Approach Notes for Advanced Analytics.

4. We leverage these Telecom Analytics Accelerators and Toolkits for developing analytics-based solutions for business problems across the globe.
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**N Balaji**
Tel: +91 44 6654 6835
Email: n.balaji@in.ey.com

**Jasjeet Singh**
Tel: +91 124 464 4078
Email: jasjeet.singh@in.ey.com

**Kunal Mhaske**
Tel: +91 22 619 20256
Email: kunal.mhaske@in.ey.com

**Upendra Sai**
Tel: +91 44 6654 8642
Email: upendra.sai@in.ey.com

**Jayendran GS**
Tel: +91 44 6654 8643
Email: jayendran.gs@in.ey.com
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