

Telecom analytics

Advisory, India Analytics



EY

Building a better
working world



Contents

Why analytics?	4
Analytics across an enterprise	5
Challenges faced in telecom	6
Where can organisations start?	7
Our services EY Analytics Service Delivery Model	9

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.

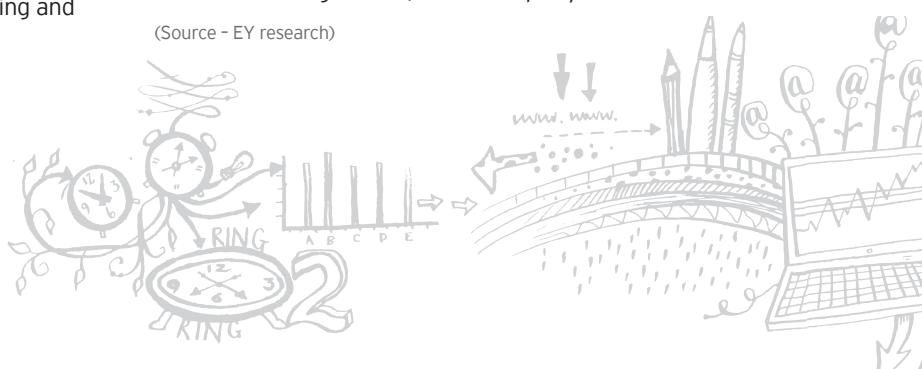
Key points:

- ▶ 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

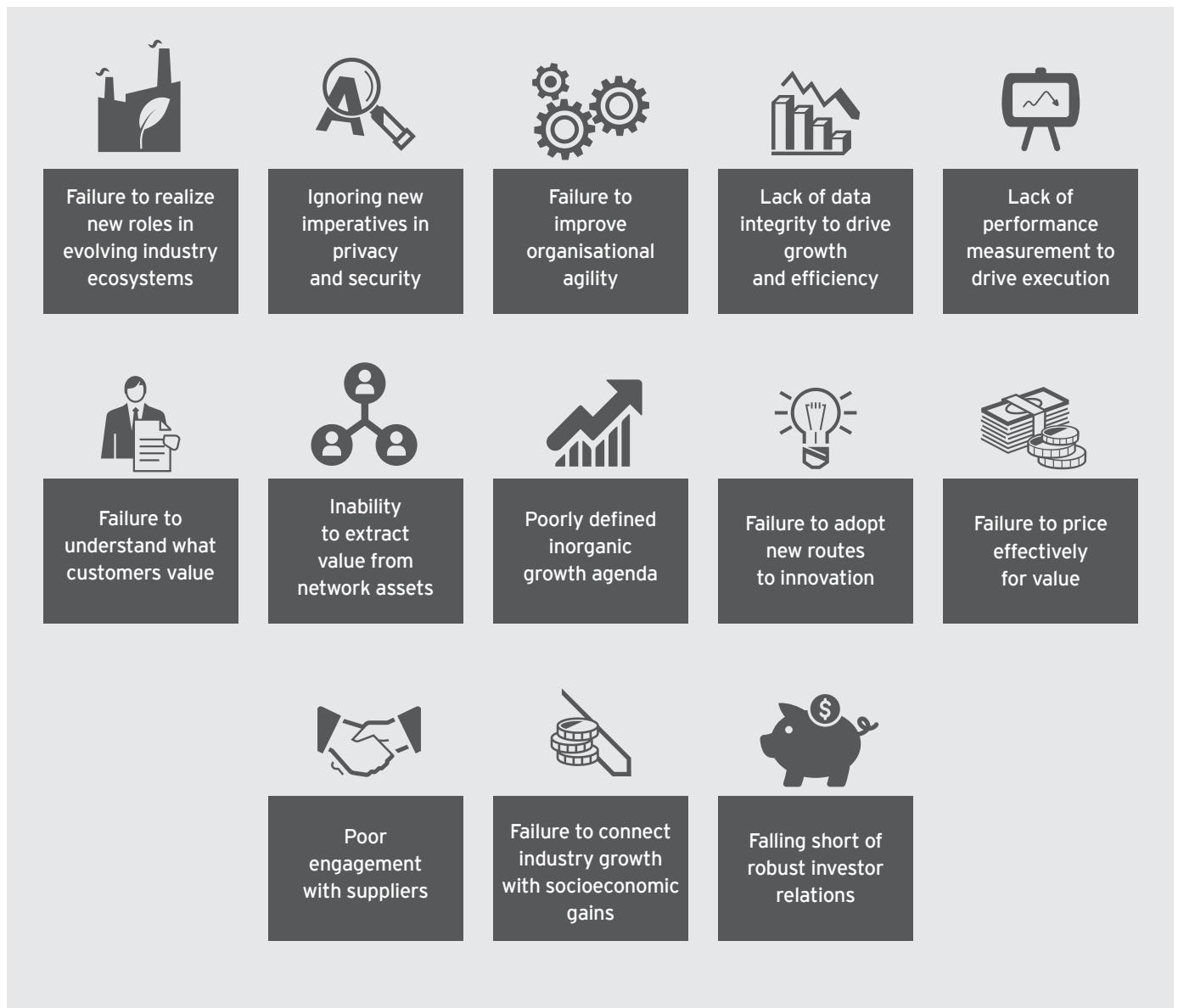
- ▶ Employee attrition analysis
 - ▶ Retention risk and impact analysis
 - ▶ High performer analysis
 - ▶ Contact centre analysis
 - ▶ Customer service effectiveness
 - ▶ MIS and dash boarding
 - ▶ Continuous monitoring
 - ▶ Optimisation



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



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.

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.

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.



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?

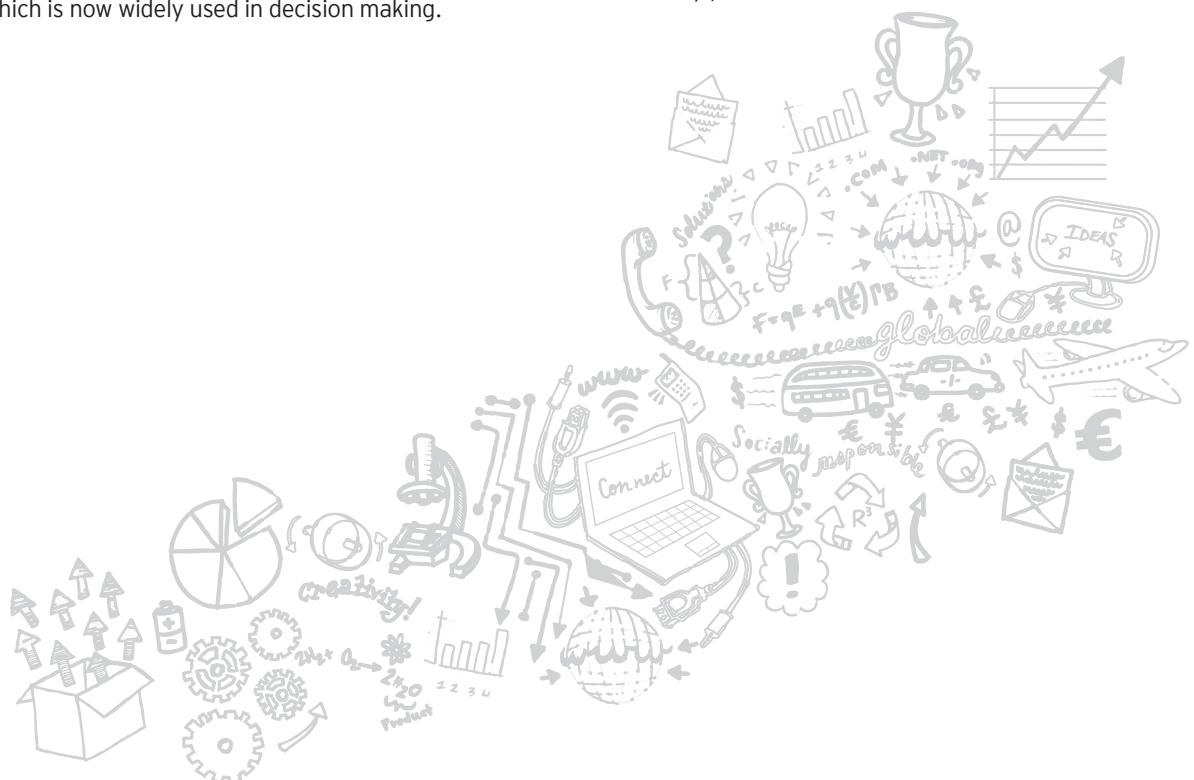
- ▶ It reduces the cost of providing BI, analytics and data services; integrates business and IT-based services on a shared process.
- ▶ It is a consistent, reliable way to estimate and execute large BI, analytics and data programs.
- ▶ It is an industrialised, distributed approach to delivering Data,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

Connect with us

Our services

Assurance, Tax, Transactions, Advisory

A range of high-quality services to help you navigate your next phase of growth

Read more on www.ey.com/India/Services

Sector focus

Centers of excellence for key sectors

Our sector practices help to ensure that our work with you is tuned to the realities of your industry.

Read about our sector knowledge at ey.com/India/industries

Stay connected

Easy access to our knowledge publications

www.ey.com/subscription-form

Webcasts and podcasts

<http://webcast.ey.com/thoughtcenter/>

 Follow us @EY_India

 Join EY's business network

For more information, visit www.ey.com/in

EY offices

Ahmedabad

2nd floor, Shivalik Ishaan
Near C.N. Vidhyalaya
Ambawadi
Ahmedabad - 380 015
Tel: + 91 79 6608 3800
Fax: + 91 79 6608 3900

Bengaluru

6th, 12th & 13th floor
"UB City", Canberra Block
No.24 Vittal Mallya Road
Bengaluru - 560 001
Tel: + 91 80 4027 5000
+ 91 80 6727 5000
Fax: + 91 80 2210 6000 (12th floor)
Fax: + 91 80 2224 0695 (13th floor)

1st Floor, Prestige Emerald
No. 4, Madras Bank Road
Lavelle Road Junction
Bengaluru - 560 001
Tel: + 91 80 6727 5000
Fax: + 91 80 2222 4112

Chandigarh

1st Floor, SCO: 166-167
Sector 9-C, Madhya Marg
Chandigarh - 160 009
Tel: + 91 172 671 7800
Fax: + 91 172 671 7888

Chennai

Tidel Park, 6th & 7th Floor
A Block (Module 601,701-702)
No.4, Rajiv Gandhi Salai,
Taramani Chennai - 600113
Tel: + 91 44 6654 8100
Fax: + 91 44 2254 0120

Hyderabad

Oval Office, 18, iLabs Centre
Hitech City, Madhapur
Hyderabad - 500081
Tel: + 91 40 6736 2000
Fax: + 91 40 6736 2200

Kochi

9th Floor, ABAD Nucleus
NH-49, Maradu PO
Kochi - 682304
Tel: + 91 484 304 4000
Fax: + 91 484 270 5393

Kolkata

22 Camac Street
3rd floor, Block 'C'
Kolkata - 700 016
Tel: + 91 33 6615 3400
Fax: + 91 33 2281 7750

Mumbai

14th Floor, The Ruby
29 Senapati Bapat Marg
Dadar (W), Mumbai - 400028
Tel: + 91 22 6192 0000
Fax: + 91 22 6192 1000

5th Floor, Block B-2

Nirlon Knowledge Park
Off. Western Express Highway
Goregaon (E)
Mumbai - 400 063
Tel: + 91 22 6192 0000
Fax: + 91 22 6192 3000

NCR

Golf View Corporate Tower B
Near DLF Golf Course
Sector 42
Gurgaon - 122002
Tel: + 91 124 464 4000
Fax: + 91 124 464 4050

10th Floor, Tower D&E
Cyber Green, DLF Phase-3,
Gurgaon 12202 Haryana
Tel: + 91 124 671 4400

6th floor, HT House

18-20 Kasturba Gandhi Marg
New Delhi - 110 001
Tel: + 91 11 4363 3000
Fax: + 91 11 4363 3200

4th & 5th Floor, Plot No 2B,
Tower 2, Sector 126,
NOIDA 201 304
Gautam Budh Nagar, U.P.
India
Tel: + 91 120 671 7000
Fax: + 91 120 671 7171

Pune

C-401, 4th floor
Panchshil Tech Park
Yerwada
(Near Don Bosco School)
Pune - 411 006
Tel: + 91 20 6603 6000
Fax: + 91 20 6601 5900

Contact us:

For more information about how our team can help you and your business, please contact:

N Balaji

Tel: +91 44 6654 6835
Email: n.balaji@in.ey.com

Kunal Mhaske

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

Jayendran GS

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

Jasjeet Singh

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

Upendra Sai

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

Ernst & Young LLP

EY | Assurance | Tax | Transactions | Advisory

About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit ey.com.

Ernst & Young LLP is one of the Indian client serving member firms of EYGM Limited. For more information about our organization, please visit www.ey.com/in.

Ernst & Young LLP is a Limited Liability Partnership, registered under the Limited Liability Partnership Act, 2008 in India, having its registered office at 22 Camac Street, 3rd Floor, Block C, Kolkata - 700016

© 2014 Ernst & Young LLP. Published in India.
All Rights Reserved.

EYIN1408-096

ED 0115

This publication contains information in summary form and is therefore intended for general guidance only. It is not intended to be a substitute for detailed research or the exercise of professional judgment. Neither Ernst & Young LLP nor any other member of the global Ernst & Young organization can accept any responsibility for loss occasioned to any person acting or refraining from action as a result of any material in this publication. On any specific matter, reference should be made to the appropriate advisor.

YTG



EY refers to the global organization, and/or one or more of the independent member firms of Ernst & Young Global Limited