COVID-19: Where Advanced Analytics Can Help

Discussion Deck

March 2020
## COVID-19: Areas Where Advanced Analytics Can Help

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KPIs Crisis Monitoring

**Mitigation measures**
- Analyze of COVID-19 impact on essential business KPIs, for example:
  - Customer churn rate
  - Acquisition rate, X-sell rates
  - ARPU
- Produce interactive dashboards to speed-up the process of identifying the main pain points
- Monitor selected KPIs convergence to “new normal” after the initial shock wears off, in order to prepare for next steps

**Outputs**
- Interactive dashboards for visual analysis and situation monitoring, with regular/live updates

Predictive Models Validation and Challenging

**Mitigation measures**
- Monitor current in-production predictive models’ power, as they will be negatively affected to a significant extend
- Analyze their reliability in current volatile circumstances and suitability of usage in decision-making process
- Develop challenger models specifically suited for unstable and volatile environment in a speeded-up mode for fast implementation

**Outputs**
- Report of suitability of currently used predictive model and its impact into decisions
- Challenger model trained on recent history

Impact Scenario Modelling on Products/Services

**Mitigation measures**
- Model scenarios of COVID-19 impact into business performance
- Model likely developments of demand for products/services, based on combination of macro data and company performance data
- Take into account possible legislative shocks and their duration (e.g. ban on non-urgent medical procedures for insurance providers)

**Outputs**
- Report with modelled scenarios of future demand, based on macro indicators’ development outlook
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### Workforce Capacity Planning and Analytics

**Mitigation measures**
- Identify and analyze bottlenecks in operations capacity (mainly personnel) for flexible planning
- Analyze different regions separately, taking into account asymmetric development of the disease
- Perform stress tests based on variety of possible scenarios to prepare a set of reaction plans, ready to use in case

**Outputs**
- Set of ready-to-use reaction plans, based on capacity bottlenecks and prioritization

### Factors to Rely on

**Mitigation measures**
- Focus on business areas/factors that are not directly affected by volatile economic situation
  - Modernize your data infrastructure with ML in mind
  - Create cost-per-item models that adapt to economic factors
  - Optimize logistics

**Outputs**
- Models supporting more efficient and transparent decision-making in technical processes

### Workforce Health Modelling

**Mitigation measures**
- Predict the probability a certain department/team’s performance will be significantly affected by COVID-19 infection
- Account for the main risk factors, such as age, exposure to the virus, available employee data
- Identify bottlenecks and critical points in your organization which are susceptible to infection

**Outputs**
- Predictive model for COVID-19 impact on workforce identifying risk areas
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Specially Featured: Working Capital Analytics

Working Capital Analytics

Mitigation measures

► Develop a set of interactive dashboards to identify potential for improvement in receivables, payables or inventory (e.g. payment terms, DSOs, payment profiles, inventory levels,...)

► Improve cash flow forecasts by predicting likely payment date for receivables and providing insights into main risk factors

► Analyze inventory level of service to find space for releasing cash from over-stocked products, balancing potentially lost sales/margin and cost of holding inventory

► Use available data with state of the art machine learning methods to improve forecasting accuracy in order to optimise inventory levels

Outputs

► Interactive dashboards identifying key areas for cash flow improvement

► Prediction model for receivables at risk

► Inventory level of service analysis

► Demand prediction model for inventory management

Example dashboards
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