

COVID-19: Where Advanced Analytics Can Help

Discussion Deck

March 2020

COVID-19: Areas Where Advanced Analytics Can Help

KPIs Crisis Monitoring



- ▶ Ensure the essential business KPIs are monitored even during the crisis and prepare for after-crisis actions

Predictive Models Validation and Challenging



- ▶ Validate the reliability of decision support that is currently running and prepare alternative solution

Impact Scenario Modelling on Products/Services



- ▶ Prepare for the near future by predicting possible scenarios of impact on the business as a whole

Workforce Capacity Planning and Analytics



- ▶ Develop reaction plans and stress tests to keep operations running in various circumstances

Factors to Rely on



- ▶ Utilize data analytics to support you in more efficient and transparent decision-making in technical processes

Workforce Health Modelling



- ▶ Estimate the impact COVID-19 could have on your teams by predicting likely contagions

Working Capital Analytics



- ▶ Improve cash flow by analysing receivables, payables and inventory

COVID-19: Areas Where Advanced Analytics Can Help

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



Improve cash flow by accurate receivables, payables and inventory analytics

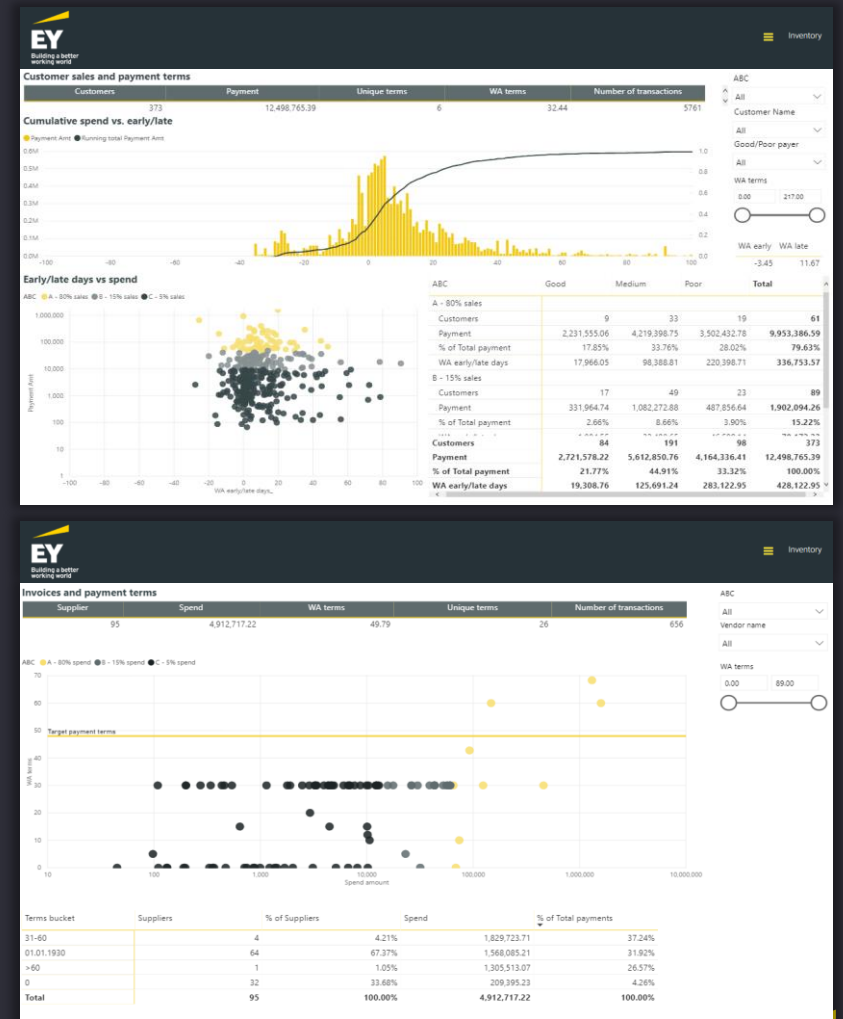
Mitigation measures

- ▶ 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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