

Business Applications



The company runs business applications without analyzing the data created as part of its business operations. Examples of business applications include CRM and ERP systems, corporate websites and apps, IT-controlled production systems etc..

Business Reporting



The company calculates metrics and key performance indicators (KPI) based on the data coming from the business applications as well as from other sources. These are then for example included in the weekly or monthly business reporting (classic Business Intelligence).

Business Discovery



The company analyzes the metrics and key performance indicators (KPI) looking for anomalies and explanations helping to improve its business processes and business model. In order to do so, employees are using for example interactive dashboard applications.

Business Forecasting



The company uses its data to predict future company and market developments. To do so it uses advanced analytics techniques (business analytics). Examples are sales forecasting, churn prediction, lead scoring or predictive maintenance.

Business Optimization



The company looks for optimization potentials within the data. To do so it simulates potential measures and/or solutions and analyzes the outcomes. The measures and/or solutions with the most favorable outcomes, according to the simulations, are subsequently implemented.

Business Automation



Machines control processes and their optimization autonomously. The company's employees only have a monitoring function.

Automated Analytics



An autonomous analytics decides autonomously what should happen. It uses prescriptive analytics and carries out the action by itself. A decision-maker is not involved.

Prescriptive Analytics



Prescriptive analyses recommend what should happen. They evaluate options based on predictions (predictive analytics), simulate different scenarios and provide recommendations for actions based on the simulated results. Prescriptive analyses still require a decision-maker to take the decision regarding an option as well as to take the subsequent action.

Predictive Analytics



Predictive analyses predict what most probably will or could happen. They create statistical or stochastic models to predict values and their probability. A predictive analysis provides an outlook on future developments. Predictive analytics is based on non-aggregated and often non-anonymized data. A decision-maker evaluates options for actions based on the predictions and decides and/or acts accordingly. For modeling, diagnostic analyses often precede a predictive analysis in order to identify patterns and verify them with domain and/or industry know-how. In production, descriptive analyses validate predictions and check their utility.

Diagnostic Analytics



Diagnostic analyses explain why something has happened. They deal with patterns in the data such as trends, correlations, outliers etc.. Diagnostic analyses provide insights into the mechanisms of a company and a market. Diagnostic analytics typically uses non-aggregated data. A decision-maker uses the results of a diagnostic analysis to plan and adapt future measures. In order to decide which metrics are worth a diagnostic analysis, descriptive analyses often precede the diagnostic analysis.

Descriptive Analytics



Descriptive analyses describe what has happened. They deal with metrics and key performance indicators (KPI) which measure the progress towards objectives. A descriptive analysis provides a retrospective view of what has happened within the company and in the market. Descriptive analytics typically uses anonymized and aggregated data. The analyses' results still require a high degree of interpretation by the decision-maker. Often a descriptive analysis is followed by a diagnostic analysis, for example to investigate the reasons for having failed to reach an objective. Descriptive analyses are often based on metric frameworks such as (value) driver trees, balanced scorecards or the AARRR model (see Customer Touchpoints).