CHECKLIST: Analytics Project Framework

This document helps your organization approach large analytics projects consistently, ensuring that they deliver the analytical tools and data necessary to produce desired business insights.

- ☐ **Project methodology.** The methodology for the project separates solution development from technical implementation, allowing specialists in the respective areas engage in the business and data requirements and analysis vs. the infrastructure and technical foundation.

- ☐ **Business questions and analysis goals.** The team has clarified the business questions to be answered by the analytics project (e.g., "what actions can we take to increase revenue from existing customers?") and the analysis goals (e.g., "determine the drivers of conversion and the segments where conversion in the test population is lower than in the control group").

- ☐ **Analysis methodology or approach.** The team has identified the analytics methodologies to be used (e.g., aggregate analysis, correlation analysis, trend analysis, etc.), based on the business questions to be answered.

- ☐ **Hypotheses.** The team has clarified the hypotheses (informed guesses as to what is causing the problem the team is trying to address with the analytics project) to be tested (e.g., "the new return policy is causing a drop in repeat business from existing customers").

- ☐ **Business and data requirements.** Business and data requirements have been derived from the business questions and analysis goals. The data required for each hypothesis has been identified and fed into one master data specification that includes the level of granularity that will be relevant for the analysis in terms of time, geography, event or segment (e.g., weekly or monthly grain).

- ☐ **Prototyping.** Business and data analyst have prototyped all data collection and integration, as well as information delivery outputs, and conducted reviews with each user groups.

- ☐ **Technical requirements.** Non-functional requirements and technical constraints within which the analytics project must operate have been captured.

- ☐ **Metadata requirements.** The business requirements that the metadata solution must satisfy have been captured in the three key categories: business, technical, and process metadata.

- ☐ **Solution architecture.** All the information delivery, data, ETL, and metadata processes have been defined and documented, enabling proper alignment of architecture components to deliver a complete, successful, and sustainable analytics solution.

- ☐ **Domain architectures.** For each domain architecture (e.g., ETL architecture) the team has determined if the organization's existing architecture is sufficient to support the business and data requirements, or requires expansion or a new architecture.

- ☐ **Technical architecture.** The infrastructure components necessary to support information delivery, data, metadata, and ETL architectures have been determined.

- ☐ **Data and information delivery analysis.** Sufficient data profiling and analysis was conducted to validate the feasibility of the business and data requirements.

- ☐ **Test approach.** The high-level testing process, scope, and approach has been defined and communicated, with the test mapping all test activities back to the corresponding requirements using a requirements traceability matrix.

- ☐ **Design documentation.** Design documents have been produced with sufficient specificity to allow developers to produce the code. Design documents cover user interface, analytic components, distribution and delivery components, information delivery environments, and security model.

- ☐ **Construction plan.** A plan has been defined to produce a physical solution, develop, and unit test the information delivery, ETL, database, and metadata code.

- ☐ **Testing plan.** A plan has been defined to transfer the analytic solution to an independent testing group for further testing and validation, comprising integration test, system test, and user acceptance test.

- ☐ **Deployment plan.** A plan has been defined to transfer the analytic solution from the development stage to the production stage where the quantitative analysts will use it, including any activities related to formal end-user training, configuration management, data certification.

- ☐ **Operation and support plans.** A plan has been defined for first- and second-tier end-user support, collecting end-user feedback for future functional enhancements, monitoring and tuning the database, expanding performance capabilities of the technical infrastructure as utilization increases, maintaining and enhancing metadata, and the like.

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