

TERMS OF REFERENCE

MONGOLIA: SMART GOVERNMENT PROJECT

Credit No.: 5483-MN

Assignment Title: Business Analytics & Modelling Specialist

Reference No.: 1.2.2 a

Background

The Cabinet Secretariat (CS) of Government of Mongolia is implementing the Smart Government Project and the project's development objective is to use ICT to improve accessibility, transparency and efficiency of public services in Mongolia.

Under the project, the CS is seeking a **Business Analytic & Modelling Specialist** to support the CS in developing a Business Analytics (BA) system inclusive a BA program or tool implemented and recommended by CS.

The BA system consists of skills, technologies, applications, processes and practices which focuses on developing new insights and understanding of Government activities and its performance based on the Government data and statistical methods. The BA system shall have extensive use of analytical modeling and numerical analysis, including explanatory and predictive modeling, and fact-based management to drive decision making of Government.

Objective

The objectives of this assignment are to support the CS in developing the BA system based on tools recommended by CS to empower the Government to analyze the ever growing transactional and social data, to develop timely insights for policy design, service improvements and resource optimization.

Scope of work

Business Analytics & Modeling Specialist shall utilize(deploy/operate/develop) the BA system in cooperation with Business Analytics IT specialist to analyze and develop the design of BA systems and data models including the following main tasks:

- design and implement data analytics and reporting architectures and develop data governance, quality processes and related business and analytics operating models;
- use and develop appropriate statistical techniques and methodologies by analyzing, interpreting and providing insights and analytical solutions;
- perform/interpret value analysis to identify value creation opportunities to Government;
- participate in the end-to-end lifecycle of business intelligence and analytics solutions and implementation from requirements gathering and analysis, technical design, testing and deployment.
- drive the collection and preparation of new and existing data and sources with high level data management, analysis and visualization knowledge helping and supporting CS in understanding the deliverable and final output.

Detailed tasks but not limited to are as follows:

- a. Understand and analyze strategic Government needs and plans for growth;
- b. Analyze data to inform Government decisions using the selected tools and techniques;
- c. Identify and select appropriate data sources, tools and techniques for data analysis;
- d. Identify all the appropriate variables such as data availability or data limitation that affect data to be provided;
- e. Identify problems to be addressed, data needs and requirements required for generation of reports from other sources;
- f. Identify new BA solutions based on the government's needs to better service for citizens and decision making processes;
- g. Develop policies and procedures for data collection and analysis data;
- h. Develop business intelligence.
- i. Design improved accountability measures for Government citizens' complaint system;
- j. Present the outputs of the analysis in accordance to agreed report formats;
- k. Prepare and maintain reports of business intelligence and analysis documentations for decision makers and supervisors;
- l. Prepare technical reports by collecting, analyzing and summarizing information and trends;
- m. Review and validate government data as it's collected;

- n. Maintain conceptual, logical and physical data models along with corresponding metadata.
- o. Develop best practices for standard naming conventions and coding practices to ensure consistency of data models.
- p. Optimize and update logical and physical data models to support new and existing projects.
- q. Manage professional and technical trainings and workshops for end users and government employees, deliver professional publications, and establishing BA community network across the government agencies;
- r. Liaising between the IT division of Cabinet Secretariat and Business analytics IT specialist to implement data strategies, build data flows and develop conceptual data models.

Expected outputs and deliverables:

- 1. Utilized the BA system for the Government with identified needs and scope by developing BA use cases and Government data and selecting proper tools and techniques.
- 2. Identified and selected data sources with data availability and data limitation, and integrated information systems for the BA system.
- 3. Introduced and maintained conceptual, logical, and physical data models with best practices.
- 4. Developed and introduced business intelligence.
- 5. Developed policies and procedures for data collection and analysis data.
- 6. Produced reports of business intelligence and analysis documentations for decision makers and supervisors
- 7. Identified KPI and performance measures of the BA system.
- 8. Extended usage of the BA system at policy and decision making levels.
- 9. Handbooks and manuals of the BA system.
- 10. Trainings for users.

Consultant's qualifications/ selection criteria:

Successful applicants will have a strong background in information technology, business analytics, statistics and system analysis. It is important that the applicant has a good understanding of business operations of Government, and good knowledge and experience of the Government business process. Previous experience with the digital government service delivery, citizen feedback mechanisms is desirable.

Business Analytics & Modelling Specialist should have:

- A minimum of a Bachelor's degree in computer science, information management/ technology, statistics, technology or other related fields;
- At least 5 years of relevant experience at the national or international level in managing projects;
- Data science and statistical knowledge with business or operational mind set.
- Understanding of databases and data modelling e.g. Oracle, Microsoft SQL Server, MySQL
- Ease with extracting, manipulating and analyzing complex, high-volume, high-dimensionality data from varying sources with data mining and handling techniques, automation and enterprise-driven reporting
- Demonstrated experience with government or multinational corporation's data infrastructure, data analytics, data modeling and business intelligence;
- Demonstrated experience in planning, business analyzing, conducting reports for number of projects;
- Demonstrated experience in designing dashboards and info-graphics presentation;
- Demonstrated strong experience in predictive analysis and prescriptive analysis in multi-national corporations;
- Demonstrated experience in data analysis may including hypothesis development, comparative analysis, demographics or geographic analysis, historical/trend analysis, scenario generation, Delphi technique and basic statistical concepts (e.g. median, mean, normal distribution, etc.);
- Experience in business analytics tools including statistical packages e.g. SPSS, SAS, Tableau, business intelligence reporting tools and R-based tools e.g. RevoScaleR;
- Good communication skills (written, spoken and presentation) in both English and Mongolian;
- Experience in business analytics for Contact Center operations is an advantage; and
- High integrity and accountability, good teamwork spirit.

Timeframe and administrative arrangements:

It is anticipated that the assignment will involve 12 man/months. The contract will be renewable subject to satisfactory performance and business needs. Work will be conducted in Mongolia.

The Business analytics modeling specialist shall contract with the Cabinet Secretariat

Office and works closely with Business analytics IT specialist and other relevant teams at CS.