**BAN6800: Business Analytics Capstone**

**Module 1 Assignment: Business Analytics**

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**TACO-TEL BUSINESS ANALYTICS PROJECT VISION DOCUMENT**

**Business Background & Problem**

Taco-Tel was established in 2007. It is a fast-growing telecommunications company in Africa, offering mobile and internet subscription services to hundreds of thousands of consumers. Over the years, the company has experienced consistent growth and profitability. However, recently there has been a below-par growth rate and a steady increase in the number of customers who have abandoned the company’s services with a churn rate of 16 percent in the last reporting period. This trend is a threat to the long-term sustainability of the organization.

The primary concern stems from the company’s inability to determine which customers are most likely to churn. Today, the company utilizes general averages of metrics such as customer usage patterns and subscription tenures to identify subscribers who have abandoned their subscriptions. Unfortunately, these measures do not accurately capture qualitative factors such as customer feedback on pricing, service quality, and customer service experiences. A more proactive approach is therefore required to predict churn before it occurs, identify the factors responsible for churn, and enable the company to take actionable steps to retain at-risk consumers, improve customer experience, and increase revenue generation (Teyf Group, 2024).

**Project Vision and Goal**

Consumer churn costs the company more as it is cheaper to retain an existing customer than to gain a new one. It also reduces the company’s market share, leads to less revenue generation, and threatens the brand’s reputation. Therefore, the goal of this project is to design and deploy a dynamic solution that identifies high-risk subscribers in real-time leveraging machine learning techniques and insights from quantitative and qualitative factors (Rapid Canvas, 2024). This new solution will help Taco-Tel segment its customer base, reduce churn rates, target these customers with personalized offers, retain and increase its market share, remain valuable, and increase profitability.

**Current Business Process**

Today, Taco-Tel leverages customer satisfaction surveys and general metrics averages to handle customer complaints individually and holistically. Here’s a summary of the current process:

1. Data Collection: The company collects customer data using sign-up channels and the Customer Relationship Management (CRM) system. This data includes the customer’s call history, billing plans, scheduled payments, purchase history, demographics, and survey responses.
2. Reactive Churn Identification: Features such as subscription tenure and last service usage are used to identify customers who have neglected their subscriptions.
3. Customer Retention Efforts: Taco-Tel then pushes loyalty offers and discounts to the identified customers, however, these ads are generic and fail to address the specific reason for churn.
4. Post-Churn Efforts: The reasons for churn are reviewed for the few customers who leave a review, while the reasons for churn of the other sect of customers who do not leave a review will never be known.

The current churn identification method is reactive, and it undervalues the possibilities inherent in the company’s vast amounts of data. The company will benefit from a more data-driven approach that leverages business intelligence and machine learning to ensure subscriber retention and prevent customer churn, thereby improving customer loyalty and ensuring long-term profitability.

**Description of Users to Participate in the Project**

1. Data Analytics Team: This team is responsible for gathering and reorganizing the required data. They will develop, train, test, and deploy the machine learning model. They are also tasked with monitoring, evaluating, and refining the models for better results.
2. Customer Experience Team: This team will utilize the churn prediction outcomes to engage at-risk customers with customer retention plans, track each effort for effectiveness, and monitor customer satisfaction feedback.
3. Marketing Team: The team will create customized ads for the various customer segments and address churn influencers.
4. IT Systems Team: The team will integrate the new churn prediction solution into the company’s CRM system, to ensure compliance and data security, and monitor the solution’s compatibility and performance.
5. Business Management Team: This team oversees the project, allocates resources, monitors the project's Return on Investment (ROI), and ensures that business goals are met.

**Project Key Stakeholders**

1. Shareholders: This group is invested in the business; therefore, it monitors the financial outcomes of every area of the company including the project's returns.
2. Executive Management: This group is evaluated based on the business's performance; therefore, they are interested in the project and its overall success. They provide resources for the project, approve budgets, and make business decisions.
3. Consumers/Customers: The company’s service subscribers benefit from service improvements, discounts, and special offers aimed at retention efforts. They also provide feedback and participate in surveys that help to improve business outcomes.
4. Regulatory Bodies: This group monitors the project’s compliance with data protection laws and ethical guidelines (such as NDPR) with the sole purpose of protecting customer information and ensuring their right to privacy is not compromised.

**New Product: Overview**

The Churn Prediction System will leverage historical data to proactively determine which subscribers are likely to abandon Taco-Tel’s services. This system will also provide clues as to the reasons customers may decide to leave and deliver instant prompts for at-risk customers. The information gathered will help the Customer Experience and Marketing Teams invest concise and intentional efforts towards addressing the reasons for dissatisfaction, offering special discounts, and retaining these customers.

The data-driven solution will be integrated with the existing CRM portal for easy data transfer and instant feedback from the model. Machine Learning techniques, such as logistics regression, decision trees, and neural networks can be harnessed to determine these probabilities accurately (Grigoryan, 2025).

**New Product: Features**

1. Churn Prediction: The new solution will continuously monitor new and existing customer data to determine which customers are likely to abandon their subscriptions.
2. Instant Churn Updates: Once a customer is identified as high-risk, an alert will be sent to the designated teams for prompt intervention.
3. Customer Segmentation: Taco-Tel’s subscribers will be divided into groups based on the level of churn risk identified, allowing for the tailoring of retention strategies (Grigoryan, 2025).
4. Insights on Churn Factors: Actionable insights will be provided based on the factors that contribute to churning risks. This information will help Taco-Tel make informed decisions.
5. User-Friendly Reports/Dashboard: A display of intuitive insights will be provided to help stakeholders track the new system’s performance and make decisions that will ensure the business stays ahead of its competitors.
6. Integration with the Current CRM System: The new solution will be integrated with Taco-Tel’s CRM system, swift data exchange, and instant feedback on churn predictions.

**New Product: Requirements**

1. Data Integration: access to the company’s database and the CRM software is required to obtain real-time customer information (Otten, 2025).
2. Scalability: The new solution must be able to adjust in response to growing amounts of data as the company expands.
3. Accuracy: The model’s accuracy, recall, F1 score, and precision should be at least 80% to confirm the model’s reliability.
4. Data Privacy and Security: The model must comply with the best global practices (e.g. NDPR) for data protection and confidentiality. Personally identifiable information must be protected.
5. Instant Processing and Feedback: The new solution must be able to process and analyze data in real-time, enabling instant feedback, remaining competitive, and for swift decision-making.
6. Intuitive Feedback Interface: The designated teams should be able to understand the model’s output without requiring technical skills to complete their tasks.

**Expected Risks and Constraints**

1. Data Quality: Incomplete, inconsistent, and inaccurate data will provide misleading results and lead to poor model performance. Data integrity must be a top priority across all data sources; therefore, proper data collection, integration, and cleaning techniques must be deployed.
2. Project Cost: The project will be capital-intensive. However, proper implementation will endear subscribers to the brand, generating higher revenue in the future.
3. Overfitting: The model may learn the training data patterns to the detriment of live data predictions; however, this can be checked using cross-validation and good evaluation techniques (Rapid Canvas, 2024).
4. Customer Data Privacy Concerns: Privacy issues may arise; therefore, it is necessary to handle these cases with transparency to avoid legal suits and penalties.
5. Resistance to Change: Staff may resist new processes and systems; therefore, prioritize staff participation, collaboration, and training for a smooth transition.

**Quality/Documentation Requirements**

1. Product Documentation: The architecture, techniques, algorithms, and processes should be documented and updated when changes are made for future reference.
2. Training Manuals: The Customer Experience and Marketing teams will require training to ensure that they respond appropriately to the model’s output.
3. Continuous Model Monitoring and Evaluation: The model’s accuracy, precision, F1 score, and recall metrics must be monitored regularly and adjusted to meet business requirements (Otten, 2025).
4. Project NDPR Documentation: In compliance with data laws, the compliance documentation should be prepared to ensure that subscriber information is handled securely and transparently.

**References**

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