INFO 6008 - S2023 Assignment 4 & 5

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IT Auditing

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Leveraging Tableau for Enhanced Business Intelligence and Data Analytics: An Initial Assessment of Controls

Companies are continually looking for cutting-edge solutions to unleash the full potential of their data in the ever-changing environment of business intelligence and data analytics. Tableau Online, a Software-as-a-Service (SaaS) provider of interactive data visualization and analytics tools, has emerged as a key player in this space. As an internal auditor responsible for supporting internal controls and developing cost-effective solutions, it is critical to examine Tableau's products to determine their fit within the framework of our organization. This preliminary assessment, which incorporates aspects from the PPTM and STRIDE frameworks, aims to identify any control gaps and assure seamless Tableau integration as we embark on a journey of data-driven insights and strategic decision-making. This review tries to provide a rapid and practical understanding of the benefits and dangers connected with Tableau deployment by scrutinizing the factors of People, Process, Technology, and Measurement.

During the evaluation of Tableau, the organization should be prioritized on these major concerns.

**PPTM** (People, Process, Technology, Measurement)

People:

* Are there people that have the essential expertise to properly use Tableau for data visualization and analytics?
* Is there a plan in place to train individuals who may need to improve their Tableau skills?
* Are data access and permissions configured correctly to limit access to sensitive information?

Process:

* Is there a defined methodology for data governance and data quality management?
* Is there a set of rules for data visualization and analysis that ensure consistency and accuracy?
* Are there procedures in place to handle data updates and refreshments to keep the visualizations up to date?

Technology:

* Does Tableau interface nicely with the organization's existing data sources and systems?
* Is the current IT infrastructure capable of supporting Tableau's data load and demands?
* Are suitable backup and disaster recovery strategies for Tableau data and configurations in place?

Measurement:

* Will Tableau be used to track and analyze defined key performance indicators (KPIs)?
* Is there a plan in place to assess the success and efficacy of Tableau implementation in meeting business objectives?

Tableau's offerings present a promising fit for the organization's business intelligence and data analytics needs. Its seamless integration with existing infrastructure, interactive visualization tools, and robust analytics capabilities show potential. Attention to employee training, data access controls, and defined processes will ensure successful implementation and maximize its impact on decision-making and business goals.

Process-wise, Tableau implementation requires a clear focus on data governance and quality management. Established guidelines for data visualization and analysis must ensure consistency and accuracy in reporting. Additionally, well-defined procedures for handling data updates and refreshes will keep visualizations up to date, enabling informed decision-making based on current information.

In terms of technology, Tableau's suitability hinges on its seamless integration with existing data sources and systems within the organization. Ensuring the current IT infrastructure can handle Tableau's data load and demands is essential for optimal performance. Adequate backup and disaster recovery mechanisms must also be in place to safeguard Tableau data and configurations, mitigating potential data loss risks.

Regarding measurement, it is crucial to have defined key performance indicators (KPIs) that Tableau will track and analyze to monitor progress and performance effectively. Additionally, a comprehensive plan should be in place to measure the success and effectiveness of Tableau implementation in achieving specific business goals. Regular assessments and evaluations will aid in optimizing Tableau's impact on strategic decision-making and overall organizational outcomes.

However, potential gaps in controls during Tableau implementation may occur if employees lack essential skills without adequate training. Unclear data governance and quality processes may lead to inaccurate visualizations. Insufficient IT infrastructure could cause performance and security issues. Improperly configured data access controls may risk unauthorized access to sensitive information. Additionally, a lack of clear measurement plans could hinder the organization's ability to assess Tableau's effectiveness in achieving business goals. Addressing these concerns is crucial to ensure a successful and impactful integration of Tableau into the organization's data-driven initiatives.

# References

Arkatechture. (2019, Feb). *Tableau Implementation: How to Plan for Success*. Retrieved from Arkatechture: https://www.arkatechture.com/blog/tableau-implementation-plan

Cogley, B. W. (2016, Dec). *A Zen Master's guide to implementing Tableau*. Retrieved from Tableau: https://www.tableau.com/blog/cliffs-notes-version-implementing-tableau-63508

*Tableau Implementation Strategies: Which One Will Work Best For Your Organization?* (2019). Retrieved from Resultant: https://resultant.com/blog/data-analytics/tableau-implementation-strategies-which-one-will-work-best-for-your-organization/