Risk Management Process Improvement

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Abstract — *The object of this project is an information technology company located in Aguadilla, Puerto Rico. Said company employs the Risk Management process to identify and mitigate potential issues that could become risks as part of New Product Introduction Program Launches. The current process makes it time intensive to obtain status of risks identified. The objectives to attend to the identified problem include making documentation consistent; bringing visibility to process, documentation, and metrics; and to deliver a central location to track risks. Actions taken to reach the project goals were to form a Governance and a Tool Development team to refine the process and design a tool with the purpose of documenting and tracking risks. As a result, the Risk Management Governance team was able to deliver the Risk Management Tool and train employees on the revised process and tool. This initiative successfully transitioned the management of risks of all new programs as of May 2022 for the three business units in the company into the Risk Management tool.*

Key Terms — *If-then format, Mitigation Strategy, NUDD, Risk Breakdown Structure*

INTRODUCTION

The object of this project is an information Technology company located in Aguadilla, Puerto Rico. Said company, employs the Risk Management process to identify and mitigate potential issues that could become risks used mainly on New Product Introduction Program Launches. The current process makes it time intensive to obtain status of risks identified. The objectives to attend to the identified problem include making documentation consistent; bringing visibility to process, documentation, and metrics; and to deliver a central location to track risks.

LITERATURE REVIEW

The current Risk Management Process at the company in question follows these steps: Identify, Assess, Plan, Monitor and Improve. A useful tool that is part of this process is the Risk Breakdown Structure (RBS). The RBS is a document which lists all the risks and opportunities possible. RBS organizes the risks and possibilities into a hierarchy and each level down provides more detail [1]. This is an asset to the first step, Risk Identification which can be combined with the Risk Questionnaire and NUDD (New Unique Different Difficult) approaches.

To assess the risk appropriately, the identified risk should be documented properly. A good way of doing so is by following the "If-then" risk statement format. The "if–then" format shows the possible condition ("if") and the potential consequence(s) ("then") [2].

As part of the Planning, Monitoring, and Improving phases, a solid mitigation plan should be put in place, validated, and used for lessons learned. The Mitigation strategy should answer the following questions [3]:

- What long-term outcomes are wanted to be achieved?
- What is the high-level plan to reduce the risk?
- How will the actions be prioritized, implemented, and proven to have accomplished the goal?

To store the collected risk data and track it, a central location must be developed for all users to access on their own time. Microsoft Power Apps allows data entry to be automated as it allows to build and share other applications that streamline workflows and automate functions that are repetitive [4].

A service that can be linked to Power Apps is Power BI. Power BI is a data analysis service that allows processing, analyzing, and visualizing high volumes of data [5]. In this manner, the data collected from the tool created in Power Apps can be transformed into metrics using key point indicators to show the status of the risks and what needs attention from the teams for continuous improvement.

METHODOLOGY

The Risk Management Governance team was formed in the month of February 2022 with key members from the Global Operations Engineering team and the Product Lifecycle Management team who are involved in identified risks during a Program Launch.

The current Risk Management Process the company follows to assess risks started being reviewed during the month of March 2022. The role of each of the representatives of the three business units was to discuss the current process with their individual teams and get feedback on what can be improved. The Risk Management Governance team met on a weekly basis to share these inputs and decide what improvements to move forward with.

During the month of March 2022, the feedback from the groups was used to establish the requirements for the Risk Management Tool (Risk Repository). The identified requirements for the tool were:

- Be SharePoint and Power Apps based.
- Include in the add new risk view all the fields used in the Risk Excel file that was filled out manually.
- Provide the ability for users to create risk reports and risk mitigation status charts.
- Calculate risk severity score automatically from user likelihood and potential impact inputs.

RESULTS AND DISCUSSION

The Risk Management team worked throughout the months of February 2022 to May

2022 to fulfill the required activities to meet the project goals. The team reviewed all proposed updates with management and a final version of the process to present to users was made available for training. The training material for the updated Risk Management Process was also made available.

A preliminary version of the tool was created and included the four requirements mentioned before. The tool's main page and add risk view can be seen in Figure 1. The tool was tested by the Risk Management Governance and Tool Development teams. The official tool release occurred on March 29, 2022. On May 2, 2022, an email notification was issued to announce the initial release of the tool with attached training material. A process and tool training update happened from May 2, 2022 to May 13, 2022.
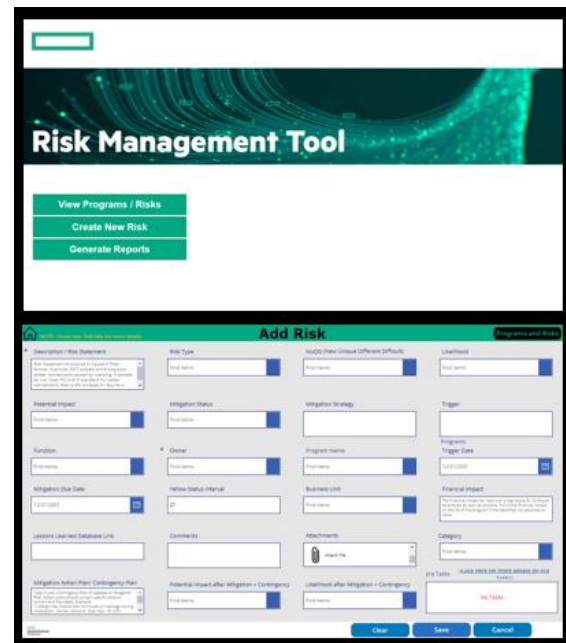

Figure 1
Risk Management Tool and Add Risk View

CONCLUSIONS

The objectives of this initiative were completed successfully. Actions were taken to reach the goals of consistent documentation, visibility to risk status and providing a central location to manage risks. The Risk Management Governance Team delivered the Risk Management Tool which met the

specifications mentioned above and trained employees on the improved process and web-based tool. The first stage of this project ended with users entering old risks into the tool and eliminating the use of the Excel file methodology as planned. As of May 2022, the transition of risk management for new programs throughout the Risk Management Tool was achieved.

Currently, the generation of risk details reports and risk mitigation status charts such as the one in Figure 2 are being created manually. Next steps for the Risk Management Process Improvement Initiative includes automating the creating of these reports and graphs using the data gathered from the tool.
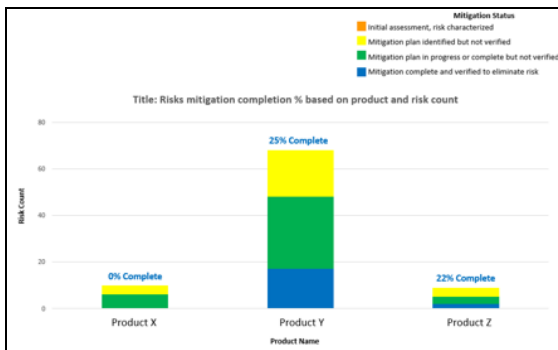

Figure 2
Risk Mitigation Status Completion % Graph

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