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| Photo displaying partial image of two pie charts on a canvas-textured page |
| Scope Statement- RFID Implementation for Adidas Warehouse |
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# **Executive Summary**

Provide a brief summary of the project using subsequent sections as a basis for this section. When the reader reads this section, he/she gets a broad and basic understanding about the main elements of the Scope Statement. Write this summary in sentence/paragraph format.

# **2. Business Objective**

## 2.1 Business Opportunity

After conducting a thorough analysis of the London Distribution Center's operational efficiency, the Adidas management team identified an improvement opportunity in line with their 2023 strategic plan: the implementation of automation in their current warehouse operations. The team assessed the warehouse's current state and observed an efficiency loss in goods allocation, accompanied by a significant inaccuracy in the information within the WMS (Warehouse Management System) due to human error during input. While acknowledging the possibility of human error, the management team noted a 25% discrepancy between the system and the actual warehouse inventory.

The decision to introduce RFID technology stems from its potential to revolutionize warehouse management. By offering real-time visibility into inventory movements, RFID technology improves accuracy and streamlines processes, aligning with Adidas' commitment to operational excellence. Given its substantial operational significance in the province, the London Distribution Center stands as an ideal hub for this transformation and serves as a pilot to determine the replicability of the concept in other distribution centers.

This solution presents a comprehensive RFID integration service tailored to Adidas' specific needs, ensuring a seamless transition, and maximizing benefits for the company. This includes RFID tag deployment, reader installation, and integration with existing systems. Furthermore, there is an opportunity for ongoing support and optimization services to ensure the technology continuously meets the evolving demands of the industry. This project not only addresses Adidas' current operational challenges but also positions the London Distribution Center to adapt to future industry requirements and meet Adidas' evolving supply chain needs.

## 2.2 Project Description

As mentioned above, the proposed solution for the current situation at the Adidas London Distribution Center is the implementation of RFID technology in the 500,000 sq ft warehouse to automate inventory and warehouse activities for this company’s location.

The project consists of installing 1500 RFID tags and stickers for the Stock Keeping Units (SKUs) stored in the location, placing 5 antennas across the facility, and providing RFID readers to enhance the efficiency of locating products. This project will also include integrating the RFID software system and data management system with the current Warehouse Management System, ensuring that information is linked and available for all functions across the department.

Some of the benefits of implementing RFID technology in a warehouse are:

1. Improves Asset Tracking and Management: RFID technology, in conjunction with the Warehouse Management System, serves as a reliable tool for obtaining real-time information about inventory levels in a company (Maplesden, 2022)
2. Enhances Time Efficiency in Month-End Counting: The application of RFID technology during month-end counting provides an excellent source of efficiency, reducing the time operators spend on this task (Maplesden, 2022)
3. Reduces Human Error in the Process: The use of RFID technology decreases human error in the process, as it eliminates a portion of human handling, resulting in higher levels of accuracy (CWI Logistics, 2020)

## 2.3 Project Constraints

The constraints that this project faces are:

**Budget:** Adidas Top Management has allocated a defined budget for the execution of this project (140,000 CAD) and has emphasized that the project cannot, under any circumstances, have any overruns. Due to the innovative nature of the project within the company, the client is hesitant to invest a large amount of money.

**Time:** The client has also emphasized that the total duration of the project must be less than 12 months. Adidas wants to implement the solution as soon as possible, given the high expectations of scalability across other locations in the country.

**Uninterrupted Daily Operations:** The client was also emphatic that the daily operations cannot be interrupted, as even 1 hour of operational downtime can compromise the supply chain and revenue earning for the company.

**Warehouse Layout Modifications**: The client explained that there will be no modifications to the current warehouse layout. This means that the warehouse will not be physically expanded or modified for the purpose of the project.

## 2.4 Project Assumptions

Below assumptions apply to the project:

**Operational Support:** There will be cooperation between the project team and the operational area of the company, as the latter are experts in the daily operation of the facility and have a better grasp of the functionality of the process.

**Functional Warehouse Management System:** The current warehouse management system is perfectly functional and has the capabilities needed to support a project of this kind. Although it is understandable that it might need adjustments, it is expected that the system doesn’t require any major changes.

**Training Availability**: It is assumed that the operators and management will have 100% availability to attend training sessions on how to use the system.

**Top Management and Operational Cooperation:** It is assumed that employees from different levels of the company have the availability to support any requests from the project manager and her team.

**Infrastructure Needs Met:** It is assumed that the physical and operational (IT) infrastructure of the company is sufficient to implement a project of this nature.

**Data Accuracy:** Although it is known that the company is experiencing a 25% discrepancy in data accuracy, it is assumed that by the time the project starts, they have verified the current inventory, and the information provided is 100% accurate.

# **3. Project: SCOPE STATEMENT**

# 3.1. Deliverables

The deliverables for the RFID implementation project will be as mentioned and explained below:

1. **Project initiation:** In this phase the project manager with the help of top management will define the project objectives, the scope, and the requirements that they are looking to achieve the project. It is important to mention that preliminary meetings with other stakeholders such as supervisors of the warehouse will be important to get a grip of the magnitude of the process and the project. Out of this phase there will be the creation the project charter with preliminary scope, schedule, and budget for analysis.
2. **Planning:** In this phase, the project manager will define the project schedule, budget and scope after the inputs collected on the 1st phase and will get approval of that from the sponsor of the project. She will also estimate the resource requirements and create a risk management plan for the completion of the project.
3. **Design and Procurement:** In this phase, the Project manager will assess the current warehouse operation and will define along with the operation manager and an RFID consultant the RFID requirements and architecture needed for the development of the project. This phase will also contain the purchase of the hardware and software needed for the develop of the project. (Labels, Antennas, Readers, Software)
4. **Implementation:** In this phase the goal is to install the RFID technology across a small portion of the warehouse to test the technology, perform software tests and adjust if needed. Also the goal is to set the RFID software and integrate it to the WMS system. After conducting the pilot test, a meeting with the sponsor will be held to show the progress and obtain approval from them.
5. **Deployment:** The goal of this phase is to deploy the complete technology across the warehouse test and monitor the complete system performance across the facility.
6. **Training:** The goal of this phase is to develop training sessions with the employees and upper management to show the use of the system and how to operate it. Will also provide training material for the usage of the new technology.
7. **Project closure:** The goal of this phase is to do a complete evaluation of the project's overall success and its impact on warehouse operations. Also will document the lessons learned across the execution of this project and to conduct a final inspection with the sponsor in order to obtain the final approval and closure of the project.

# Out of the scope

Exclusions from the scope of this projects are:

**Data Verification:** As discussed in the assumptions, it is assumed that the client will provide accurate information about the process; therefore, any form of data verification (performing inventory counting and verification) is excluded from this project.

**Maintenance:** The maintenance of the system is not included in this project and needs to be contracted as a separate service when needed.

**Modifications to the Current Process:** There will be no modification to the current process. The project will be developed based on the current process and information provided by the client.

**Legal Compliance Beyond RFID Implementation:** While the project will follow any RFID regulation to be compliant, any other legal requirement aside from this will be out of the scope of the project, and neither the project manager nor her team are responsible for any violation.

**Integration to Any Other Systems Different from the Warehouse Management System:** The scope of this project only includes a total integration with the current warehouse management system. Therefore, integration with any existing system different from the WMS is out of the scope of this project and will need to be contracted as a different service.

**Any Major Changes to the Company’s IT Infrastructure:** The project manager and her team are not responsible for any changes to the company’s IT infrastructure, and it is assumed that the company has the necessary network infrastructure to develop a project of this magnitude.

**Any Other Requirement or Deliverable Not Discussed in the Deliverable Section of This Document (Section 3.2).**

# **4. High Level WBS**

A high-level Work Breakdown structure for this project is:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Deliverable | Description | Due date |
| 1.1 | Project Initiation | * Define project objectives, scope, and team roles. * Create the project charter and project scope | 2023/09/28 |
| 1.2 | Planning | * Define the schedule. * Define the budget. * Estimate the resource requirements. * Create the Risk Management Plan | 2023/10/13 |
| 1.3 | Design and procurement | * Assess the status of the process. * Define RFID system requirements and architecture. * Select the and purchase the RFID Hardware and Software. | 2023/11/30 |
| 1.4 | Implementation | * Label and install RFID hardware. * Configure the software. * Integrate the technology with the current WMS. * Conduct the Pilot test | 2023/12/30 |
| 1.5 | Deployment | * Roll out RFID technology across the entire warehouse facility. * Monitor system performance and address any issues as they arise. | 2024/02/15 |
| 1.6 | Training | * Train warehouse staff in how to use RFID technology effectively. * Develop training materials and resources. | 2024/04/15 |
| 1.7 | Project Closure | * Evaluate the project's overall success and its impact on warehouse operations. * Complete all project documentation, including lessons learned. * Conduct a final review and obtain Client’s final approval. | 2024/04/30 |

Table 1. High level WBS

# **5. Risks**

Some of the Risks that this project can face and may pose a threat in the normal execution of it can be seen in below chart:

|  |  |  |
| --- | --- | --- |
| **Risk** | **Mitigation Plan** | **Stakeholder Responsible** |
| **Integration challenges-** The integration of the current WMS with the RFID data management system. | Engage early with the company’s IT department to conduct thorough compatibility tests, perform pilot integrations, and allocate additional time in the project schedule for unexpected integration issues. Establish clear communication channels between IT Department, PM, PM Team and RFID Consultant | -Project Manager  -Project manager team  -Adida’s IT department  -RFID Consultant |
| **Employee Resistance** | Conduct comprehensive training sessions, communicate the benefits of RFID implementation and involve employees in the process through feedback sessions. Suggest to the HR department to implement a change management plan to address concerns and foster a positive attitude towards the new technology. Promote incentives to the use of the new technology. | -Adida’s HR Department  - Project Manager  -Project manager team |
| **Schedule Overruns –** Potential delays to the planned timeline of execution of the project | Keep continuous track of the planned schedule and report any discrepancy to the project sponsor. Have a back up plan for any extraordinary situation | -Project Manager |
| **Scalability -** The risk of the RFID system being unable to scale efficiently to accommodate increased workload or expansion to other locations. | Conduct thorough capacity planning, and regularly assess system performance. Implement modular and scalable infrastructure to support future growth. | -Project Manager  -Project manager team  -Adida’s IT department  -RFID Consultant |
| **Costs Overruns –** The risk of exciding the stablished budget for the project | Develop a detailed budget plan, conduct a comprehensive cost-benefit analysis, and establish contingency funds for unforeseen expenses. Regularly monitor and report on project expenditures to ensure they align with the budget. Keep constant communication with the sponsor to prevent any costs surprises. | -Project Manager |

Table 2. Risks Table

# **6. Project Estimates**

# 6.1. High level Budget

For the completion of this project, it has been estimated that it is needed 140,000 CAD. These are intended to be distributed as below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Units** | **Estimated unit cost** | **Estimated Cost** |
| RFID Tags and stickers | 1500 | $51 | $76,500 |
| RFID Readers | 15 | $400 | $6,000 |
| Antennas | 5 | $300 | $1,500 |
| Software system | 1 | $20,000 | $20,000 |
| Data management system | 1 | $5,000 | $5,000 |
| Consultant | 1 | $2,000 | $2,000 |
| Miscellaneous | 1 | $10,000 | $10,000 |
| Reserves | 1 | $18,150 | $18,150 |
| **TOTAL** | | | $139,150 |

Table 3. High level Estimated budget

The 60% of the budget is destinated for Materials (RFID Tags, Readers and Antennas), 18% for Data management software, 8% for consultancy and miscellaneous and a 13% is the reserve of the project.

# 6.2. Stakeholders

Some Stakeholders of the project are mentioned in below table:

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Role** | **Influence** | **Impact** |
| **Adidas Management team (sponsor)** | Senior management is the responsible for setting the requirements of the project, approval of budget, approval of any changes that might be needed, and the responsible to ensure that the project aligns with the company’s business objectives | High- its accountable for most of the strategic direction of the project. | High-It’s a key stakeholder in terms of decisions. Can affect positively or negative on decisions of the project. |
| **IT Department** | This stakeholder will be crucial for support on the project. It will be support from the technical and internal point of view, will also support the integration of the project with the current system. | High- Accountable for the operational IT standpoint of the project | High-Delays or issues in IT can directly impact project timelines, functionality and budget. |
| **Project Manager and her team** | They are in charge of tracking the overall performance of the project in terms of scope, time and budget, always looking after to meet the requirements set for this project | High-Accountable for the development of the project. | High- A bad or good execution of their job can heavily affect the success or downfall of a project. |
| **Customers** | A “thermometer” of the success of the project. The successful integration of RFID technology can potentially lead to improved inventory management, which, in turn, may result in better product availability and service for customers. | Mid- They can provide feedback of their experience once the project is launched, and this can help to adjust any issues within the process. | Mid- The RFID implementation should enhance customer experience by ensuring product availability, reducing errors in shipments, and improving overall service. |
| **Distribution Center operational staff** | They are key stakeholders as they will be directly impacted by the RFID implementation. Their responsibilities may include adapting to using RFID scanners and ensuring accurate data collection. | High-Their cooperation and ability to adapt to new processes and technology are essential for the project's success. | High- If there is any type of resistance of challenges when adopting the technology this might pose a great threat to the project success. |

Table 4. Stakeholders

# 6.3. Project Resources

|  |  |
| --- | --- |
| **Name** | **Role** |
| **Project Manager** | It is responsible for overall project planning, execution, and success of the project and coordinates that the project runs smoothly in terms of time, scope and budget. Also is accountable that the project goals aligns with the requirements established by the sponsor |
| **RFID and software consultant** | It is responsible for providing the technical expertise to the project. To evaluate and suggest the best option for the needs of the sponsor and the operation. Will also be responsible for the integration of the current warehouse management system to the new technology that wants to be put in place. |
| **Warehouse and operations supervisor/manager** | It is a support to the project manager and her team in terms of operations of the facility. Will serve as an internal consultant to overlook if the functionality of the project is useful to the day to day operation. |
| **IT specialist and the IT department** | Will serve as a support to the project manager and the project. Will also overlook the IT functionality of the project and how it will be functional for the current IT system in place. |
| **HR and operations department** | Will serve as a support when training session are scheduled. Will also be responsible that the transition from the old process to the new one is smooth, and the employees don’t feel any type of discontentment. |

Table 5. Resources

# **7 Authorization**

|  |  |
| --- | --- |
| **Sponsor Signature** | **Project Manager Signature** |
| *Ana Kate* | *Daniela Rincon* |
| **Sponsor Name** | **Project Manager Name** |
| Ana Kate | Daniela Rincon |
| **Date** | **Date** |
| 11/21/2023 | 11/21/2023 |

## 7.1 Document Update Version

|  |  |  |  |
| --- | --- | --- | --- |
| Ver # | Date | Name | Description (e.g., Creation, Update) |
| 1.0 | 11/18/2023 | Scope Statement-RFID Implementation | Creation of the Document with all the excerpts in it. |
| 1.1 | 11/20/2023 | Scope Statement-RFID Implementation | Final document with signatures of acceptance. |

**Prepared by: Daniela Rincon**

# References

CWI Logistics. (2020, January 13). *What is RFID and How Is It Taking Warehousing to the Next Level*. Retrieved from CWI Logistics: https://cwi-logistics.com/news/how-rfid-is-taking-warehousing-to-the-next-level/

Maplesden, P. (2022, September 22). *7 benefits of RFID in supply chain management and logistics*. Retrieved from TechTraget: https://www.techtarget.com/searcherp/tip/7-benefits-of-RFID-in-supply-chain-management-and-logistics