PROJECT CHARTER

RFID Implementation for Fresh Foods

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Project Sponsor: Robert Judge

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Approval of the Project Charter indicates an understanding of the purpose and content described in this deliverable. By signing this deliverable, each individual agrees work should be initiated on this project and necessary resources should be committed as described herein.

Approver Name	Title	Signature	Date

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Section 1. Project Overview

1.1 Introduction/Background

Fresh Foods Market is a grocery store chain that has 20 stores across the United States. Fresh Foods employs 150 full time and 100 part time employees. The Fresh Foods market research departments have spent 100,000 on current market demands in 2009. The RFID project should be undertaken to allow Fresh Foods Market to have a competitive advantage in the food industry by satisfying their customer demands in Los Angeles. Los Angeles customers demand for easy check out which calls for shorter lines. A survey Fresh Foods conducted in March of 2009 “How are we satisfying you as a customer” showed that Fresh Foods customers in Los Angeles live busy lives and don’t want to wait in long lines. The Los Angeles Times conducted a survey in July of 2009 stating that “The most irritable part of grocery shopping is waiting in line says 86% of customers who took the survey. The data from the survey showed the Fresh Foods corporate executives that convenience is most important to their customers which will increase profit margins.

1.2 Business Objectives

Fresh Foods Market’s strategic goal is to increase profits by satisfying customer demands. Fresh Foods wants to increase technologies in their Los Angeles store in order to fulfill market demands for quicker checkouts. There are many limitations that Fresh Foods faces in order to meet this customer demand. We can increase profits and reduce costs if we implement RFID to allow for lines to be shorter for customers. Customers would choose Fresh Foods over any convenience store or market if RFID increased process efficiency.

1.3 Current Situation and Problem/Opportunity Statement

Fresh Foods have not increased market share in the past 2 years. The data from the survey provided by Fresh Foods researchers as well as other resources have helped define the limitations that Fresh Foods faces as a company. Fresh Foods Market lacks the register space that can increases efficiency at a lower cost. The Los Angeles location has a perfect location to allow for increasing profit margins for Fresh Foods Market. Moving Fresh Farms location in Los Angeles would not be a good organizational project to pursue. The market researchers at Fresh Farms Market found that another limitation consists of having to scan each item one at a time. This is a slow process and having a

multi scanner would be more efficient. The need for RFID is a high priority for Fresh Foods Market to take the right steps in the right direction. Fresh Foods must continue market research to obtain the maximum results of maximizing profits by satisfying customers by providing them with what they demand. Fresh Foods will comply with market demand changes to allow for organizational needs to be met.

1.4 Critical Assumption and Constraints

This project requires a well-managed database since all the products offered in the supermarket are going to be in the system. The pricing and product information for each product should be legitimate because a single mistake in price or product information can lead to a loss in the supermarket's revenue. This project will however cut employee expense since Fresh Foods won't need to hire cashiers or baggers. The project will include training tools to train employees and customers how to use the new system.

1.5 Analysis of Option and Recommendation

- Do nothing for the business is doing well and meeting profit margin goals
- Move to larger locations to have more cashiers to increase the speed of checkout
- Replace cashiers with self checkout to reduce labor costs
- Implement RFID into store to allow for more than one item to be scanned at a time to meet the demand of fast checkout.

1.6 Preliminary Project Requirements

- RFID must have a frequency of 902-928 MHz
- RFID must have the capability to generate 2 tags
- RFID must have read capabilities
- The cost of RFID must be $2,195 each
- The design of RFID must be durable
- RFID trainings must bring awareness and functionality to the customer
- RFID must reduce operational costs
- RFID must allow check out to increase productivity
- RFID must function efficiently with the new shopping cart design

1.7 Purpose and Justification

RFID Project Purpose:

Our purpose in initiating the project to tag items in Fresh Foods Market with RFID transponders is to improve the rate of checkout time by enabling an RFID transceiver to checkout entire contents of the customers' shopping cart in one instance. This will:

- Reduce costs by limiting the number of checkout people and baggers.
- Increase quality of inventory control by reducing the number of database transactions to one, thereby limiting data error.
- Reduce clerical costs by reducing the number of transactions.
- Increase productivity by allowing speedier access through checkout so more customers can checkout more quickly.
- Improve customers' access to open checkout lanes, thereby improving convenience, customer satisfaction, and retention, and attracting more customers.
- Reduction of out-of-stock merchandise.

Critical Success Factors:

- The RFID Project will be a success when the store checkout times are decreased.
- It will be a success when the accounting costs have been trimmed.
- When Fresh Foods customer base grows we will have achieved our objective.

Expected Benefits:

- All Fresh Foods activities will become streamlined
- The stocking process can be improved using hand-held transceivers for item placement and item replacement.
- The shopping process will include "Ready-Bags" shopping carts for customers to place their items in, relieving the bagging process.
- The checkout process will be fast, smooth, and accurate.
- Accounting processes including inventory will be speedier reducing out-of-stock merchandise.
- Fresh Foods will realize a higher profit
- Accounting processes will be streamlined.
- The Fresh Foods customer base will grow due to convenience.

1.8 Budget Estimate and Financial Analysis

A conservative preliminary estimate of costs for the RFID Tag Project is $ 484,950, to obtain the project rough budget liberal estimate 30 percent was added to each of the

costs bringing the total to $ 630,435. More than half the cost is for labor, including outsourced consulting and training. Internal labor includes employees involved in implementing the system. The cost of infrastructure improvements includes the redesign and construction of shopping checkout areas, including wiring, this estimate may still be very conservative.

Exhibit A summarizes the projected costs and benefits spread over four years. Since it would take nearly a year to implement the RFID system there are no benefits for year one. It conservatively estimates the benefits based on reduction in accounting and labor, and customer attraction and sales increase. The financial estimates are encouraging, showing the project payback year as year three. It shows the estimated NPV as $ 193,839.51 and the estimated ROI as 37.13%.

Budget Estimate

	Estimated Cost	Estimated Cost +30%
RFID Tags (passive) @ .29 - .38 * 100,000	$ 38,000	$ 49,400
RFID Readers Motorola Symbol XR450 @ $ 2,195 * 10	21,950	28,535
Printers (writes to RFID chips) @ $ 5,000 @ 3	15,000	19,500
Middleware (approx.)	5,000	6,500
Infrastructure Improvements (aisles, etc.)	145,000	188,500
Labor – Internal - Implementation	100,000	130,000
Labor – External - Consulting	100,000	130,000
Labor – External - Training	60,000	78,000
TOTAL ROUGH BUDGET	$ 484,950	**$ 630,435**

1.9 Schedule Estimate

Project Charter Approved	2 Days
Project Plan Completed	10 Days
Project Plan Approved	1 Day
Project Execution - Research	90 Days
Project Execution – Implementation	120 days
Project Closed Out	5 Days
Total Number of Days	228 Days

1.10 Potential Risk

The biggest concern in using RFID tags in a Fresh Foods is the security. People can take advantage of this new technology since there is less human interaction when customers check out their groceries. Hackers/and or criminals can attempt to gain access into the system and try to crash the whole database or make RFID tags of their own so they can cheat the system. Developing a secured database and RFID tag system is crucial. The lack of human interaction may also affect Fresh Foods customer service.

Section 2. Points of Contact

Primary Contact	**Name/Title/Organization**	**Phone**	**Email**
Amber Rusell	Project Manager		
Secondary Contacts	**Name/Title/Organization**	**Phone**	**Email**
Damon Mulligan	Installation Supervisor		
	Name/Title/Organization	**Phone**	**Email**
Curt Ireton	Research Manager		
	Name/Title/Organization	**Phone**	**Email**
Tyler Rudolph	Resource Supervisor		
	Name/Title/Organization	**Phone**	**Email**
Jan Bondoc	Training Researcher		

Section 3. Revision History

Version	**Date**	**Name**	**Description**

Exhibit A

RFID Project Financial Analysis

Discount Rate 8%

	Year 1	2	3	4	Total	
Costs	157,609	157,609	157,609	157,609		
Discount Factor	0.9259	0.8573	0.7938	0.7350		
Discounted Costs	145,934.03	135,124.31	125,115.11	115,847.32	522,020.77	
Benefits	0	300,000	300,000	300,000		
Discount Factor	0.9259	0.8573	0.7938	0.7350		
Discounted Benefits	0.00	257,201.65	238,149.67	220,508.96	715,860.27	
Disc. Ben - Costs	-145,934.03	122,077.33	113,034.57	104,661.64	193,839.51	**NPV**
Cumulative Ben - Costs	-145,934.03	-23,856.70	89,177.87	193,839.51		

Payback Year 3

ROI 37.13%

According to the ROI, it would be good to invest in this project because the return would be significant.

The Net Present Value is positive and although it would take 3 years to pay back, the benefits would significantly outweigh the costs.