



SYRACUSE UNIVERSITY
School of Information Studies



DIEBOLD
NIXDORF

Macy's Self-Checkout System Prototype

Project Charter

Submitted by:

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Project Identification

Project Name: Macy's Self-Checkout System Prototype

Project ID: M9753

Date of Charter Approval: March 01, 2018

Project Start Date: March 01, 2018

Project Finish Date: December 31, 2018

Summary of Project Origin and Description

Macy's, Inc., with 2016 fiscal sales of \$25.778 billion, approximately 14,000 employees, over 700 department stores, 125 specialty stores, is one of the premier retailers in the country. The store wants to experiment with the use of modern technology that creates a personalized shopping experience by integrated use of individualized hardware and software. The project is to develop a prototype for one of over 700 stores of Macy's. The prototype is of the TP Application Suite by Diebold-Nixdorf, which offers a service-oriented software solution that seamlessly supports the entire multi-channel retail flow, including POS transactions, self-service checkouts, mobile interface for consumers, payment processing, order management, merchandize management, customer engagement, and customer loyalty.

The prototype of the self-checkout systems by Diebold-Nixdorf will be established at a Macy's store in Cincinnati, Ohio, located near the headquarters of the retail chain. The project is to implement the prototype to understand the nature of the project and how it can be scaled if it were to be judged successful. Studies suggest that this way of merchandising, using enhanced technology to create a tailored experience for the customers can yield significant return on investment and business growth through customer satisfaction, and can be impetus to increase in market value of the company.

Project Business Case (Expected Results / Impact)

The project is being carried out mainly to understand the effectiveness and efficiency of the new TP.net software solution to facilitate self-checkout at Macy's stores. Expected result is an increase in profit of the store. Successful implementation may also impact the market share of Macy's. Various business cases include:

- To understand the nature of the project and how it might be scaled if it were to be judged successful.

- Gain significant return on investment through modernized methods of merchandizing.
- Implementing a transformational approach that can be strategic in the increase of market share.
- Integrate the new technology into Macy's store inventory and point-of-sale systems.
- Demonstrate the way the data can be collected, integrated, analyzed and reported, including a prototype dashboard system.

List of Product and Process Deliverables to be Produced

The product and process deliverables to be produced to successfully implement the new system include:

- An integrated system of the new Diebold-Nixdorf checkout terminals with the existing point-of-sale system at Macy's.
- Preparing a series of dashboards for the management at the Macy's headquarters, Macy's store managers, with the ability to monitor key performance indicators of the operation of the self-checkout system.
- Modifying the Macy's Mobile App to incorporate the Diebold-Nixdorf TP.net software that will provide an interface to both, Macy's inventory system and point-of-sale system self-checkout terminals.
- Trend reporting system that will be established over time, to give corporate management access to information regarding the overall performance of the system during store traffic variations of the retail year.

Known Project Time and Cost Constraints

The following bullet points explain the known time and cost constraints for the project, as set by the management. They are as follows:

- **Time Constraint:**
President of Macy's, Inc., Hal Lawton wants the prototype completed by December 31, 2018, with a comprehensive prototype report expected at completion of the project. The project is expected to begin on March 01, 2018, when the charter is approved.
- **Cost Constraint:**
No budget constraints have been set for the prototype. The cost will be worked out as the project plan advances through the development phase.

Assumptions

The following assumptions have been regarding the project:

- Project Charter will be approved by March 01, 2018 and the project will begin.
- Merchandizing in this manner will provide return on investment.
- More information will be gathered through the development phase of project planning.
- Business side of the project will be able to derive benefits from the system data.
- The project will be rolled out in other stores of Macy's.
- Any kind of delay will be avoided.
- No alterations will be made in the desired deliverables as the project proceeds.

Project Team Names, Project Roles, Organizational Reporting Structure

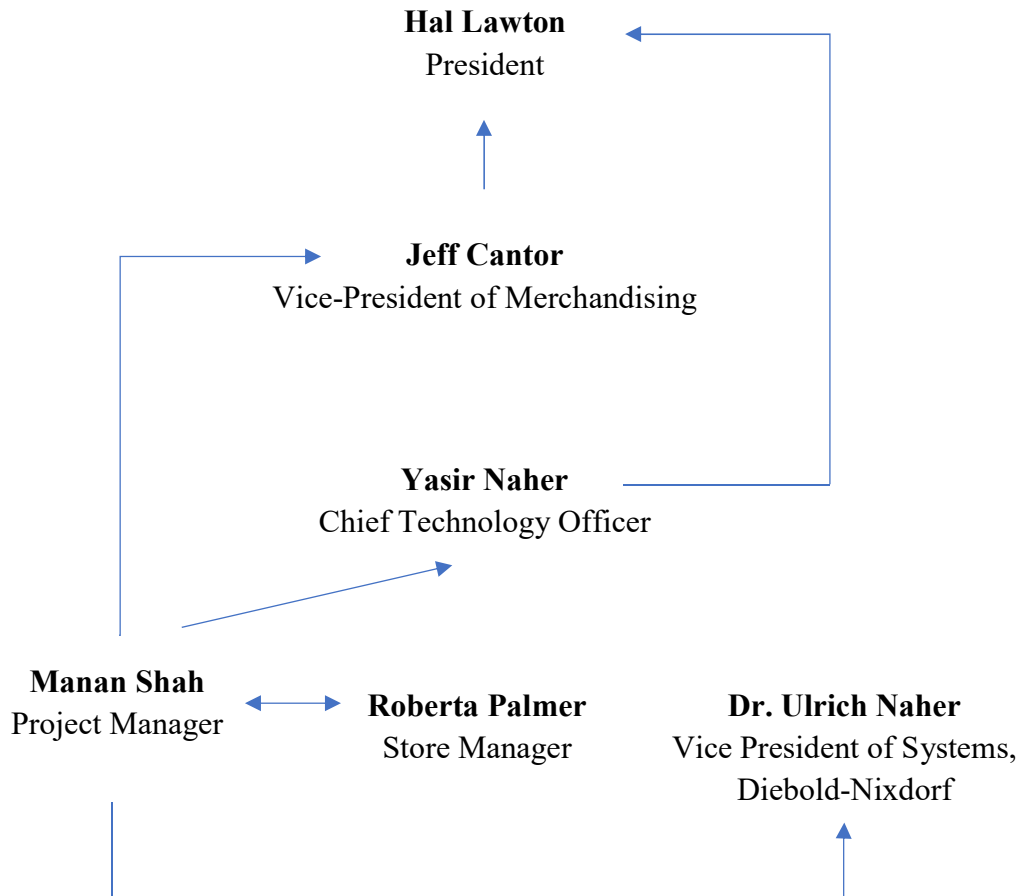
IT Project Team and Roles:

1. Manan Shah, Project Manager
2. Roberta Palmer, Store Manager
3. Nicole Morgante, Senior Programmer
4. Carlos Morales, Database Administrator
5. Anthony Sardina, Business Systems Analyst
6. Peter Sheehan, Programmer
7. Noelle Skube, Information Security Specialist
8. Panita Wichiaankuer, Data Analytics Specialist
9. Huey-Ling Wang, Testing Specialist
10. Kevin Barnett, Diebold-Nixdorf POS Systems Analyst
11. Edward Burns, Diebold-Nixdorf Systems Integration Analyst

Senior Management Involvement:

1. Hal Lawton, President, Macy's, Inc.
Project initiator and approver.
2. Jeff Cantor, Vice-President of Merchandising, Macy, Inc.
Monitoring the project and head of business side of the system.
3. Yasir Anwar, Chief Technology Officer, Macy's, Inc.
Part of executive team, directly oversees the project on behalf of Hal Lawton and reports to him.
4. Dr. Ulrich Naher, Vice-President of Systems, Diebold-Nixdorf
Oversees Diebold-Nixdorf side of the prototype.

Organizational Structure



List of High-Level Phases / Milestones and General Sequence

The project will be carried out in the following phases, showing the milestones and general sequence:

Requirements Gathering:

In this phase, frequent sit-downs will be arranged for the project manager and the IT team to understand the various requirements of the management and how the system needs to be developed, integrated and expanded.

Project Planning:

In this phase, a summary of the project will be developed and presented to the Board of Directors and the IT and Store Management Structure.

After evaluation of the summary, the project will need to be approved by the senior management to proceed to the next phase.

Milestone 1: Project Plan Approval

After approval of the project plan and the project charter document, which is expected to be by March 01, 2018, the project will proceed to the development phase.

Development and Integration:

The main aim of the project is to integrate the Diebold-Nixdorf Self-Checkout Terminal provided by the TP.net Suite into the existing Macy's store inventory and point-of-sale systems. This task will be carried out in this phase, under the supervision of Yasir Anwar and Jeff Cantor from senior management, Dr. Ulrich Palmer from Diebold-Nixdorf, and with inputs from Roberta Palmer, on-site store manager.

Along with the integration of the new system, a series of dashboards will also be created from management at the headquarters. A mobile interface will be created for the new systems.

Milestone 2: Successful Integration of the System

This milestone marks the achievement of the primary goal of the project, that is, integration of the new system with the existing Macy's checkout system.

Testing:

The newly integrated system will be tested at the Macy's Store in Cincinnati, Ohio, where it will be implemented. If any discrepancies are found, the IT Project Team will attempt to resolve them.

Deployment:

After completion of the testing phase, the new systems will be made available to us by the customers. This phase will also establish trends regarding acceptance of the new system, indicating overall performance, especially during traffic variations. These trends will be reported to corporate management for organizational decision making.

Milestone 3: Implementation of the New System

Use of the new system at the Macy's Store in Cincinnati marks the beginning of the project deployment.

Maintenance:

Success of the project is based on how well it is maintained post its implementation. Regular system checks will be carried out. Sessions will also be conducted for company's personnel to understand the use of the new system. Initially, the store will provide help to customers to switch to the new self-checkout system.

Milestone 4: Project Expansion

After finishing all the phases of the project, this milestone marks the beginning of the expansion of establishing self-checkout terminals at other Macy's stores.

Project Integration Plan – Forms, Changes, Procedures

The Project Integration Plan will be developed after successful approval of the Project Charter. All procedures involving execution of development, testing, deployment and maintenance phases will be specified.

Initial List of Project Risks and Initial Responses Planned

Initial list of project risks include the following:

- Integration of Diebold-Nixdorf's TP.net solution with the existing point-of-sale system.
- Acceptance of the new self-checkout systems by the customers.
- Easy-to-understand dashboards for management at corporate headquarters.
- Understanding the requirements of the management as well as the customers.
- Successful transformation of data into correct format for analysis and reporting.

Initial responses planned include the following:

- Implementing on-going project quality management, with status reporting and team reviews.
- Survey-based analysis of customer satisfaction after using the new system.
- Periodic learning sessions for all personnel to understand the working of the new interfaces and the dashboards.
- Bi-weekly meeting with senior executives to discuss project status.
- Using data analytics to find garbage data and to clean the data for analysis.

Project Charter Approval

Name	Position	Sign and Date
Hal Lawton (Sponsor)	President, Macy's, Inc.	
Jeff Cantor	Vice-President of Merchandising, Macy, Inc.	
Yasir Anwar	Chief Technology Officer, Macy's, Inc.	
Manan Shah	Project Manager	
Roberta Palmer	Store Manager, Macy's Tri-County Mall Store, Cincinnati, OH	
Dr. Ulrich Naher	Senior Vice-President of Systems, Diebold-Nixdorf	
