Final Project Plan

Farmer's Market Vend-o-mat

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JONES COLLEGE OF BUSINESS

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Overview

Creating the Farmer's Market Vend-o-mat project allowed us plenty of creativity and collaboration. Early in the planning phase, we determined that the vending machine would enable farmers to sell their products after short events like farmer's markets. Customers who were unable to attend these limited-time events will have the opportunity to purchase local produce with ease. The vending machine will be located inside an airport, which allows it high exposure to a wide range of consumers. The option of easy access to fruits and vegetables will be a new concept to customers in this setting. Our project aims to benefit both local farmers and people from all over the country looking for a healthy snack while waiting to get from place to place.

Executive Summary

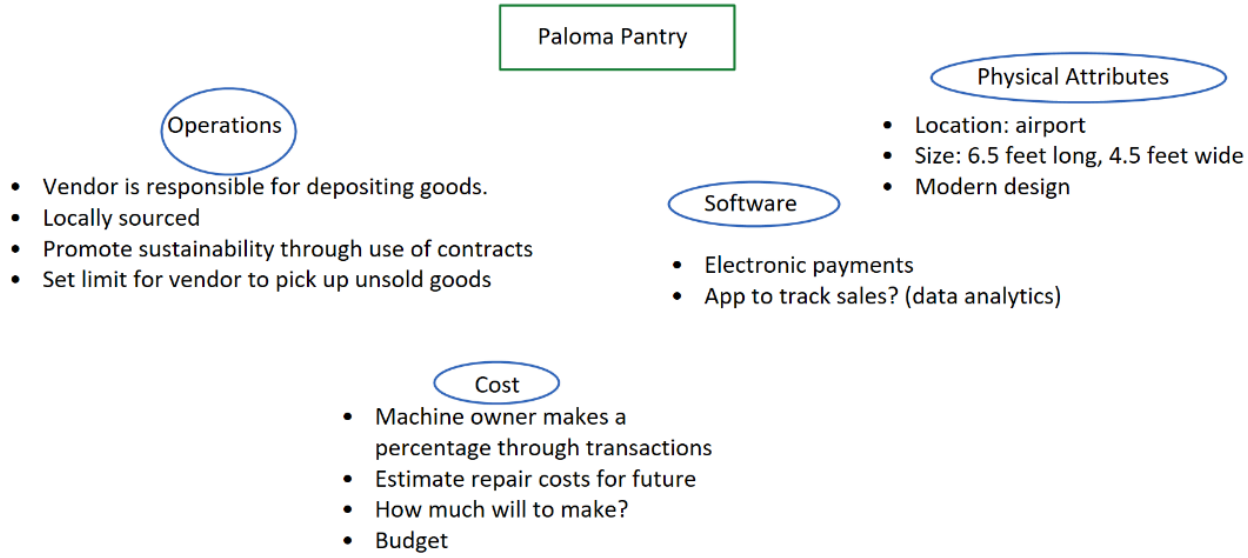
Our team allotted plenty of time to determine the resources needed to make this project a success during our planning process. This project will take at least 16 weeks to complete. The total cost estimated for this project is $28,376.75. Some critical risks associated with this project are needing more time for critical path activities, depending on unreliable suppliers, and lacking interested vendors. We planned to overcome these risks later on in our planning. We researched other projects to develop our cost and time estimates for this project. Our cost estimates are derived from costs associated with similar activities on other projects. We estimated high on each value to ensure our budget is not too low when it is time for implementation. Similarly, our time estimates are based on times it took other teams to complete the same activities we plan to conduct. Overall, our estimates aim to closely portray the actual values we will observe, like cost and time, once the project launches.

Project Team

Our team consists of a variety of talents, skills, and perspectives. Our project champion is Susanna Gayed. She is the driving force behind all substantial project activities. She makes sure the project stays on track, and everyone knows their responsibilities. Yooshi Zhang is our process owner. She is responsible for overseeing the main processes involved with the project. Lindsey Hunsicker is our CI facilitator. The CI facilitator ensures that project activities are at the level they need to be, and improvements occur when required. Lastly, we have Lauren Dassinger on our team to be a helping hand wherever she is needed. Lauren is here to assist other team members when activities exceed allotted time or costs. Altogether, our team works well together, and we bring our many ideas together to make our project fulfill its potential.

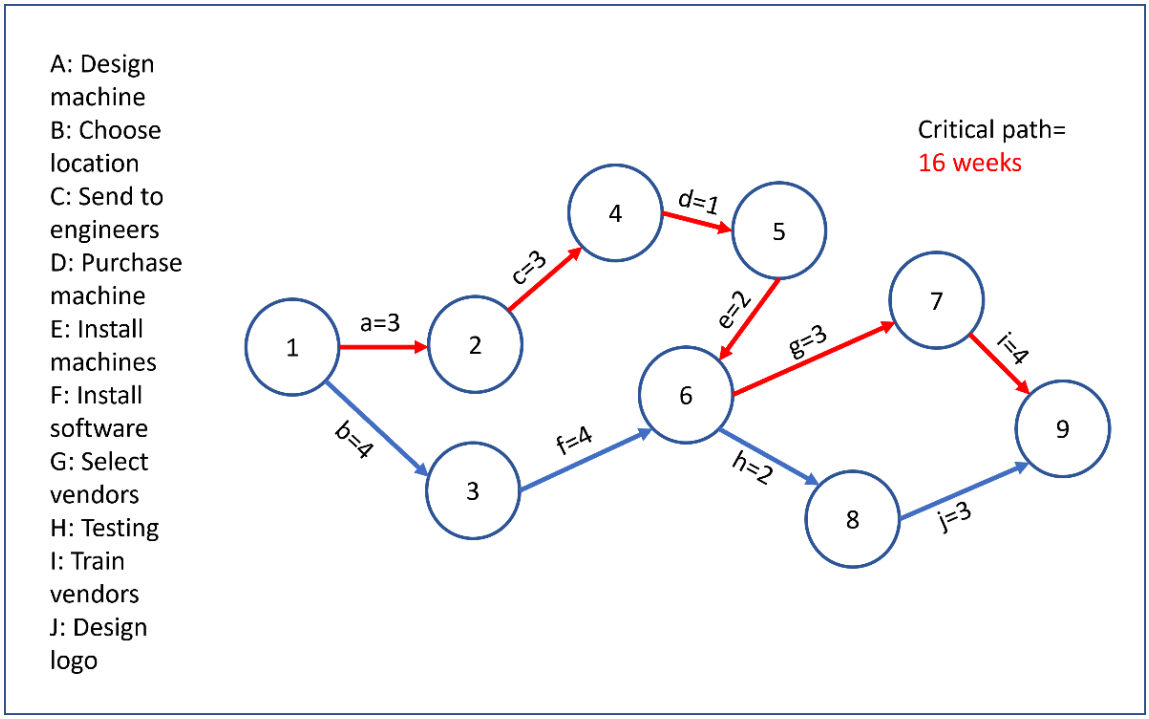
Scope

Project managers must define the scope of a project to initiate it properly. Defining the scope means establishing what dimensions will be included or not included in the project. Below is the scope of our project creating and implementing a farmer's market vending machine. Our team outlined what tasks must take place for each vending machine category. With this, we were able to put all team members on the same page so that we were able to tackle the project more cohesively. We established the physical dimensions of our vending machine, where we will get the products to sell, how we plan to collect payments, and the software we might use. Detailing these scope components will help us understand how much we can do with this project, and we can leave out features beyond that defined scope.



Schedule

Project duration estimating and timetable estimating helps to set clear direction and priorities. The network diagram provides a visual overview of the project from start to finish, shows the precedence relationships among activities, and helps understand the workflow in a project. The identified critical path is the longest total duration and network, and the shortest time the project can be completed. This leads to increased work efficiency among team members because close attention must be given to critical activities to prevent project delays. To implement our Farmer's Market Vend-o-mat project, we identified ten activities and sixteen weeks of time duration. Below is the network diagram, and the red line highlights the critical path.



Quality

With the ASQ – A3 Report (Quality), we analyzed where our weak spots are within the food market vending machine. As you can see in the report, our focus was on software, maintenance, installation, and machine design. Knowing the focus points on these items, we can have an action plan to maintain stable quality. We also analyzed a problematic root cause that may arise. We identified and prepared a solution if specific quality issues may occur. This is an essential step in quality because staying fresh is the number one priority. If the food is not fresh, low quality, this will significantly impact the success of the vending machine.

ASQ A3 Report

Division/Location/Dept.: Airport	**Project Name:** Vending Machine	**Project #:** 1	**Version:** 1	**Start Date:** 1/18/2022 **Last Updated:** 2/12/2022	**Close Date:** 5/10/2022
Team Members and Roles			**Goals/Targets/Metrics Impacted** (Specific outcomes required, including current and future goals.)		
Project champion: Susanna Gayed			Goal is to make $1,500 by the end of the first quarterly.		
Process owner: Yuxin Zhang					
CI facilitator: Lindsey Hunsicker					
Other team members: Lauren Dassinger					
Problem Statement and Possible Constraints (Clearly and succinctly define the presenting problem. Why are we talking about it?)			**Analysis/Think** (Identify root cause and solution and/or design future state. What do you know and how do you know it?)		
Farmer's market timeframe accessibility and limited availablity			Root cause: food is available all around and at all times. The variety of food and kinds are depended upon what the farmers make available. This may cause a shortage and have one type of food sell quicker than others. Therefore, keeping up with demand may be challenging. A solution could be to have the farmers have an app connected to the vending machine. That way, the farmers can get alerts when one product is running low.		
Scope—Define start and end of process (Define the elements of what is in scope for the project.)					
design, create, and install vending machine for vendors. One spot location.					
Current State (Where do we stand today? Have you gathered and verified facts—not just data and anecdotes—to clearly understand current state? Have you gone to the gemba?)					
Planning (budget, schedule and scope)			**Action Items—Improve/Implement** (Activities required to achieve proposed future state. When updating a process, make sure all procedures get updated.)		
			Description	**Responsible**	**Completion Date**
			Software	CI facilitator	on-going
			Maintenance	Process Owner	om-going
			Installation	Project Champion	3/22/2022
			Machine Design	Project Champion	2/8/2022
			Measures to Control/Sustain (Ensure an ongoing plan, do check, adjust)		
			payments to farmers, dispense food, basic functions, and checking expired food		
			Sign Off Project Completion	Champion: SG	Process Owner:

Communications

Developing a communications plan is essential to project success because it reduces the amount of uncertainty around communications. Without this formal documentation, there may be a lack of understanding between the project team and stakeholders. Establishing regular means of communication with each stakeholder group ensures that everyone's input is valued throughout the project. It is also necessary to verify that communication methods are effective for each group or individual. Creating this plan, our group considered how often stakeholders want updates and which method appeals most to them. We determined our key stakeholder groups and based our communication approach on their needs and influence in the project.

Communications Plan							
Farmer's Market Vending Machine | Paloma Pantry							
Stakeholder	**Timeline**	**Description**	**Delivery Methods**	**Interest**	**Influence**	**Frequency**	**Owner**
Farmers	3/1/22 - 5/10/22	Quantity of supply, profit, project updates	Email, phone	High	Medium	Bi-weekly	Project Champion
Engineers	1/18/22 - 3/22/22	Needs/preferences, project updates	Zoom, email	Medium	Medium	Weekly	CI Facilitator
Graphic Designers	4/19/22 - 5/10/22	Aesthetic preferences, design ideas	Zoom, email	Low	Low	Weekly	Process Owner
Developers	1/18/22 - 3/29/22	Functional requirements, app creation	Email, phone	Medium	High	Weekly	Project Champion
Customers	1/18/22 - 5/10/22	Preferences, features, software	Surveys, flyers	High	High	Bi-weekly	CI Facilitator
Airport	4/5/22 - 5/10/22	Space needs, approvals, rent, location	Email, phone	Medium	High	Weekly	Process Owner

Paloma Pantry RACI Chart

Task	Susanna	Yooshi	Lindsey	Lauren
Create designs	A	C	I	R
Choose location	A	R	I	I
Find farmers	R	A	C	C
Send to engineers	A	R	C	I
Select software	R	C	A	A
Assess risk	A	I	R	I
Product testing	C	A	R	C
Review logo	I	I	A	R

R: Responsible
A: Accountable
C: Consulted
I: Informed

Budget

Cost management is essential for business as it helps in pricing goods and services and sets the baseline for the project budget. Effective cost management ensures that a project's budget is on track, and the project will finalize according to its planned scope. Putting cost controls in place lowers companies' overall expenses. A company can easily lose money without cost control, and costs can exceed project profit. Below is our Cost Plan table, which lists the activities in which costs may occur. The explanations detail how the budget is allocated, the price for each activity, and overall budget estimates.

	Steps	Explanation	Estimated Cost
A	Design machine	Designed in-house. Blueprints created on LucidChart. Wages for 2 people for 3 weeks.	$ 4,200.00
B	Choose location	Wages for 2 people for 4 weeks.	$ 4,000.00
C	Send to engineers	Wages for 1 person for 3 weeks.	$ 1,500.00
D	Purchase machine	Machine price. Labor included.	$ 7,016.75
E	Install machines	Installation included in purchase.	$ -
F	Install software	Outsourced. Purchasing software and having it installed. Yearly subscription to use software.	$ 560.00
G	Select vendors	Wages for 2 people for 3 weeks.	$ 1,800.00
H	Testing	Outsourced. We pay vending machine experts to test machine.	$ 1,800.00
I	Train vendors	Paying our team to teach vendors. Wages for 4 people for 4 weeks.	$ 4,000.00
J	Design logo	Outsourced. Pay 1 graphic designer to create logo.	$ 1,000.00
	Unexpected Expenses		$ 2,500.00
			Total cost:
			$ 28,376.75

Risk

Identifying potential risks for the project prevents any unfortunate or expensive surprises. Our team proposed and documented seven risks and measured their possibility of occurring. This risk register allowed us to narrow down which risks we may need to worry about most during the project. Using this risk register, we can plan and develop countermeasures that allow us to go into the project with ease.

Project Risk Register

Risk ID	Risk Description	Risk Impact (where 1 is the lowest impact value and 5 is the highest impact value)	Risk Probability (where 1 is the lowest probability value and 5 is the highest)	Risk Value	Risk Owner	Countermeasures	Cost of Countermeasure Alternatives
R1	Design isn't completed on time	4	1	4	Project Champion	Give earlier deadline than needed	N/A
R2	Complications with installment	3	1	3	CI Facilitator	Have a backup company to take over installment	$750
R3	Not enough interest from farmers	5	2	10	Project Champion	Make formal agreements with farmers ahead of time	$500
R4	Poor communication with vendors	3	2	6	Process Owner	Enforcing communication plan	N/A
R5	Airport denies implementation	5	1	5	Process Owner	Contract with the airport before the project begins	$200
R6	Issues with software	4	3	12	CI Facilitator	Create our own software (in-house)	$1,500
R7	Dissatisfied with engineered machine upon purchase	5	3	15	Project Champion	Adding more time to purchasing phase	$875
				0			

Conclusion

This project has many fundamental elements that have been mapped out to execute this plan for the Farmer's Market Vend-o-mat. Our team understands the goals now that we know our critical path, communications plan, budget, scope, possible risks, and quality focus spot. With this mapped-out plan for the project, we can begin implementation. Our next step in the project will be designing the machine and finding the airport location needed to start phase one. As we work through each project phase, our documentation will assist us in keeping the project on track, maintaining stakeholder satisfaction, and delivering a robust final product.