Canteen Ordering System For Unilever

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Content Table

Project Overview & Break down (illustration)

Company Introduction

- Unilever is a British-Dutch MNC FMCG company, headquartered in London, England.
- One of the oldest FMCG companies present in around **190 countries**.
- Its UK office had around **1500 employees** spread across **12 floors**.
- They had **2 canteens** to cater to 1500 employees.
- Each canteen could seat around 150 employees at a time **(300 in total).**

Problem Breakdown

- Preferred Lunch time = 12pm — 1pm **(1 Hour)**
- This led to a huge rush in the canteen during lunch hours resulting in employees wasting a lot of time waiting for tables to be vacant.

    - 30-35 mins wasted in que/grab table
    - 10-15 mins spent in eating
    - 10 mins spent in reaching and coming back from the canteen using the elevators
    - It took around 60 minutes for employees to go and come back from lunch

- Changing turns to hours can be made into a rough calculation of **~ 3.5 hours** a day

    - Total Number of Employees = **1500**
    - Total seating capacity = **300**
    - No: Turns required = 1500/300 = **5**

Observations

- **Employee Complaint** — Employees don't always get the food they want.

- **Canteen problem** — throws away significant amount of food if not sold in time.
- **Employee request**— To create an online system to order meals, and delivered in desired timeslot.

Business Objectives & Success Criteria

Objective — [1 — 2] (Canteen Operations)

- Reduce food waste **>= 30%** (in 6 months)
- Reduce canteen operating cost to **15%** (12 Months)
- Scale value of food thrown away o Previous- **25%** wasted o Must plan for <15%

Objective — 3 (Work Efficiency)

- Increase average effective worktime by 30min per day from each employee (in 3 months)

Objective — 4 (Online System)

- Make Ordering process automated
- Deliver food to user workstation
- Canteen can function with less manpower

Program Environment

Java Script — Doesn't go through much change & if done right won't need much maintenances

Objective Based Outlook (Breakdown)

No: of Employees = 1500
Hours used (Collectively by 1500) = 3.5 = 3hr 30min [logical rough approximation from turns (5)]
Hours used in month = 3hr 30min x 26 days
= 91 hours per month
Increase worktime average in future = 30min per day Collective
employee lunch time reduction = 3.5 - 0.5
= 3 hrs
Productivity increase per month = 91 hrs - (3hrs x 26 days)
= 13 hours per month
Solution explanation (Used general assumptions and approximations to create a model)
The approximation and logic used shows an approximate **13hrs extra productive worktime is achievable** in a month which can be optimized and improved in later stages for the company.

Project Task:

1. Identifying stakeholders — Create a list of stakeholders (as taught in Business Analysis Planning and Monitoring Knowledge Area)
2. Identify the problem statement in this system.
3. Identify objectives of the new Canteen Ordering System.
4. Create as-is and future process map (using flowcharts). You can use any of the popular tools in the market like Microsoft Visio, Lucid Chart, Creately, Pidoco, or Balsamiq
5. As a Business Analyst working on this project, find out the scope of the Canteen Ordering System. To find the scope you can use the case diagram (UML) or context diagram for the same.
6. Write down the main features that need to be developed.
7. Write the in-scope and out-of-scope items for this software.
8. Draw an activity diagram for the system.
9. Draw an ER diagram of the system.
10. Write out the business requirements, both the functional and non-functional requirements.

11. Draw wireframes or mock screens for any two of the features namely Menu Creation and any other feature as deemed fit by the student. (Use the technique prototyping or wire framing that is taught in the Training). You can use any of the wireframing tools like Microsoft PowerPoint, Microsoft Word, Balsamiq, Sketch, Adobe XD, Adobe Illustrator, Figma, UXPin, In-Vision Studio, Invision Freehand, or Moqups.

Business Analysis Core Concepts

CHANGE:

Switching from an existing manual ordering system to an online canteen order system that will facilitate food delivery to the employees in their workstation.

NEED:

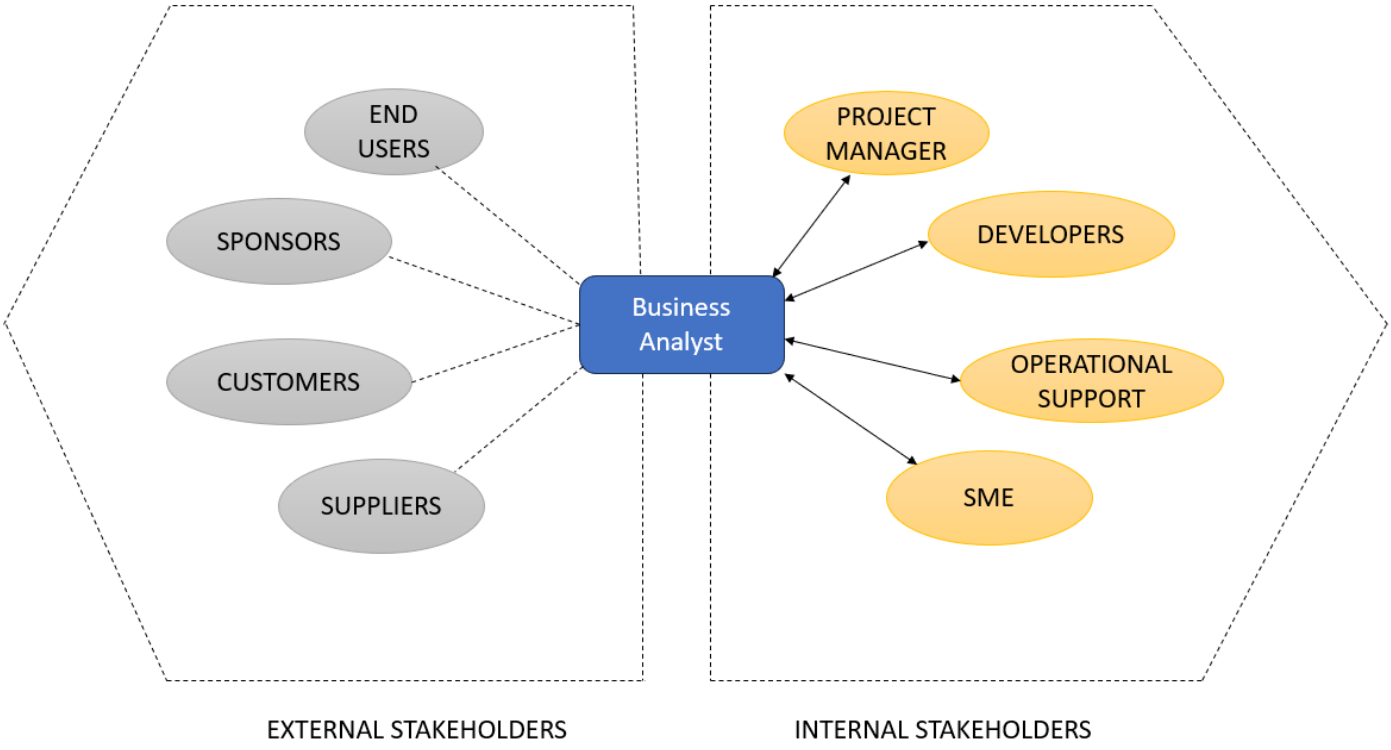
Need to develop a system for online canteen operation which will help employee to order food online, will reduce employee wait time and will indirectly increase employee efficiency and help with food availability, reduce wastage of food.

SOLUTION:

1. Design and implement an IT project that enables the organization to have its own online canteen order system which is integrated with the payroll system and that facilitates the food delivery to the employees on time.
2. The existing system will also run parallelly until everyone will be able /willing to use the new online system
3. Setup a delivery system so that the food is delivered on time and without mix-up errors.

STAKEHOLDERS:

- Sponsors-Company Management/Operation manager/ other managers
- Suppliers
- Business Analyst
- customer -Canteen Management/operational support/Chef
- Delivery persons
- Developer
- End User- Employees
- SME
- Project Manager



VALUE:

1. Increased effective worktime and increased productivity.
2. Satisfied Employees
3. Reduced Food wastages and reduced canteen operating cost.
4. Efficient canteen management
5. Record of employee eating habits

CONTEXT:

Platform is to be created in using java script.
Reasons –

1. Easy to maintain
2. No drastic changes in program language for long time.
3. Compatibility with systems
4. Cross platform usability

Project Evaluation and Review Techniques (*Speculated overall time period of core objectives*)

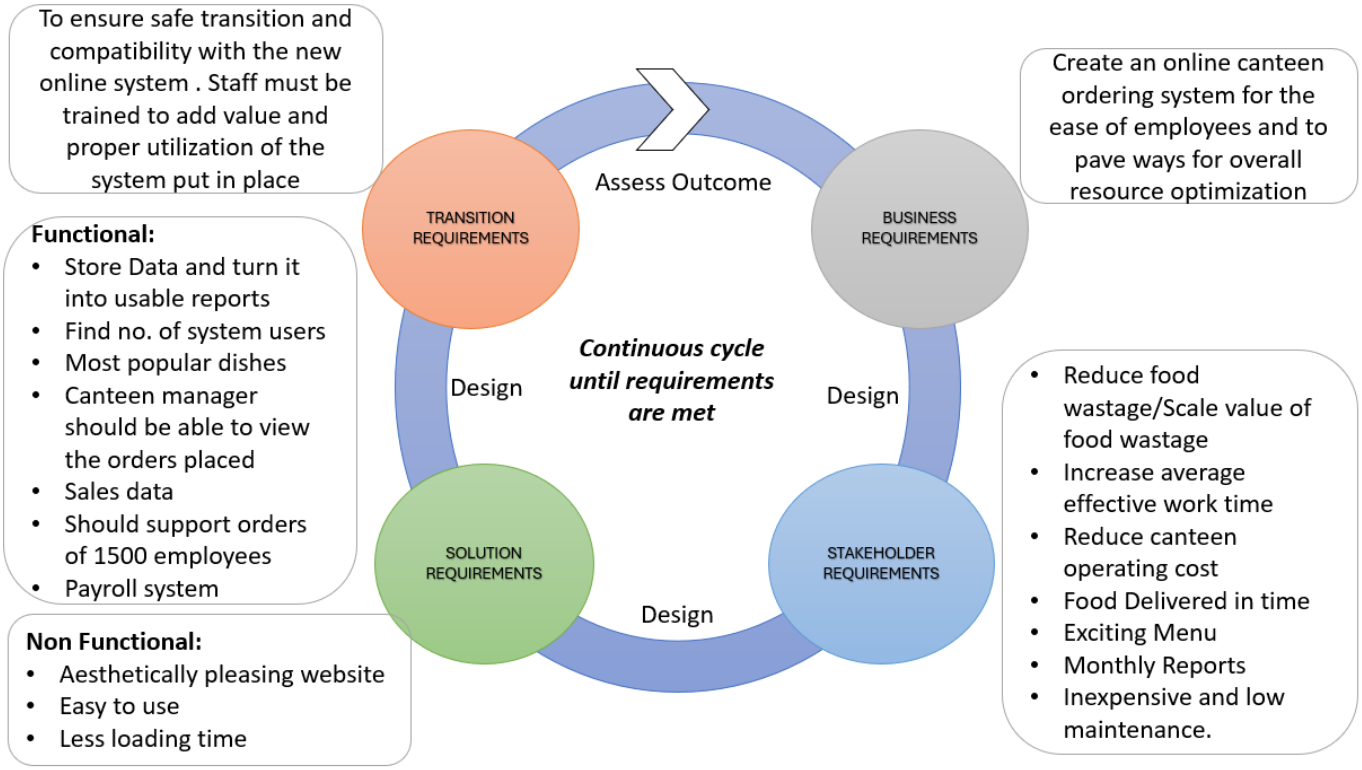
Triangular Distribution

Optimistic = 3 Months (average worktime)
Most Likely = 6 Months (reduce food wastage)
Pessimistic = 12 Months (operating cost reduction)

PERT = [3 + (4 x 6) + 12] / 6
= 6.5

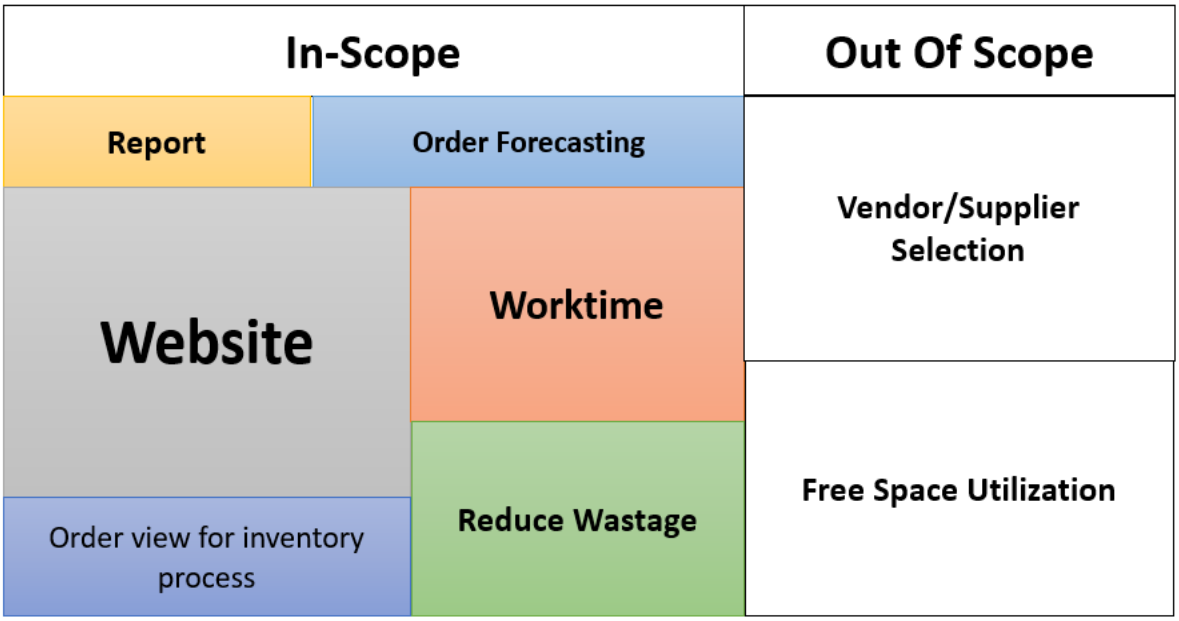
Approximately it will take 6.5 months for the 3 core objectives to be put in place and come into effect

Requirements Classification Schema



Requirements and Design Cycle was utilized to illustrate the different solution schemas and how they are interlinked and aids to reach most appropriate outcome.

In Scope and Out of scope (scopes pointing at core objectives briefed)



The tiles show the core and differentiations between the scopes. In-scope is elaborated in the objectives and requirement classification schema vividly and classified accordingly.

Future and Old System Process/Journey (As is & To be)

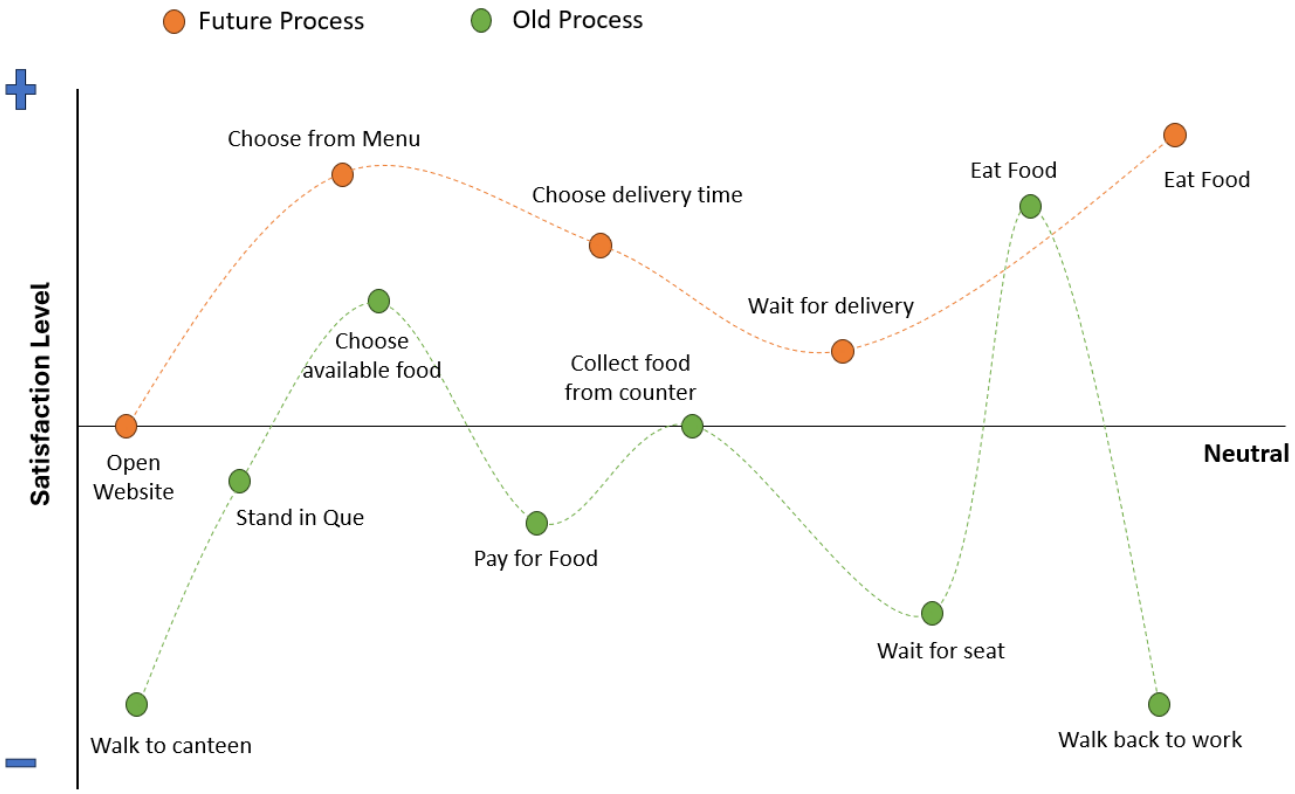
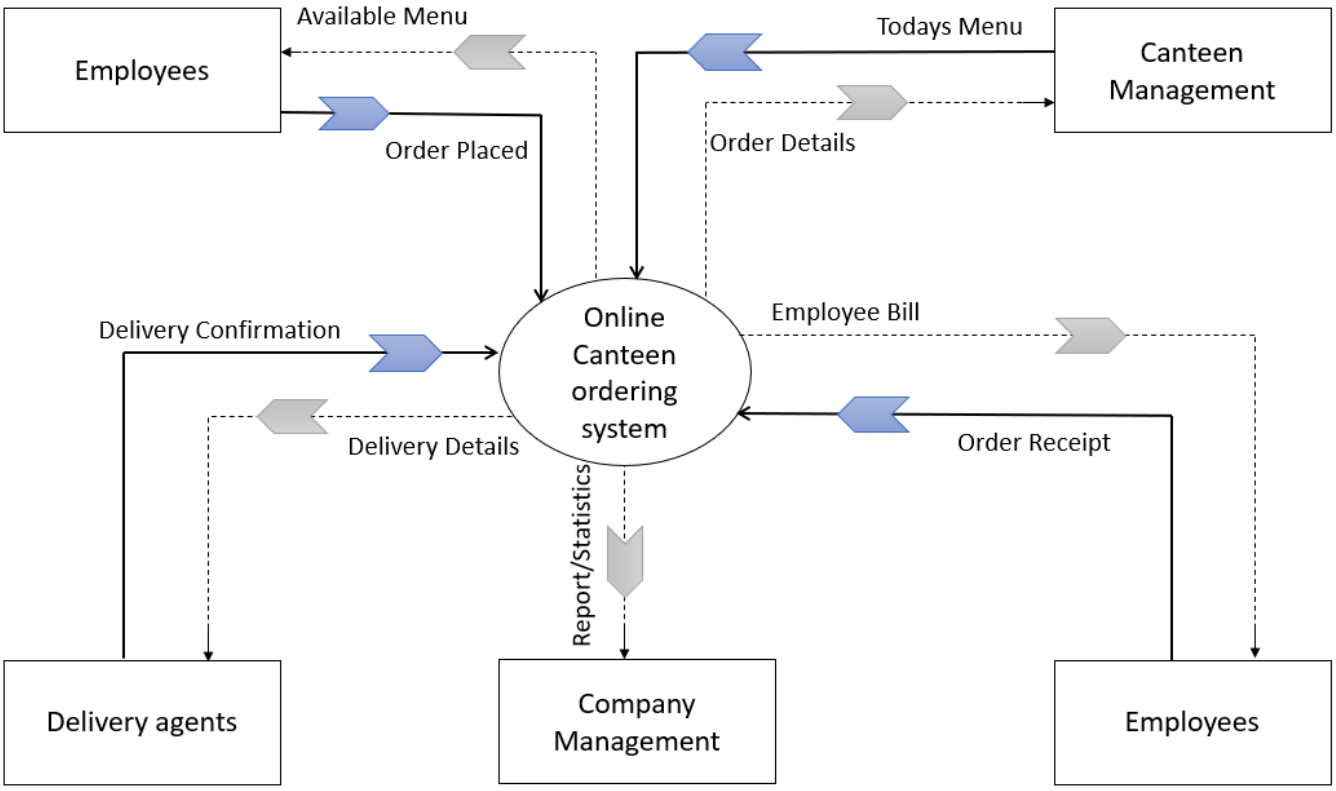


Diagram portraits a vivid picture of how the old process (as is) and Future process (To be) looks like and also depicts how this system change will affect the involving end user. As it shows the old process was tiring with too many contact points and wastage of time which in turn effects the satisfaction level of the involved parties. But the new system completely eliminates all contact points except delivery and takes the wastage of time to a bare minimum which leads to maintain a higher satisfaction level.

Context Diagram



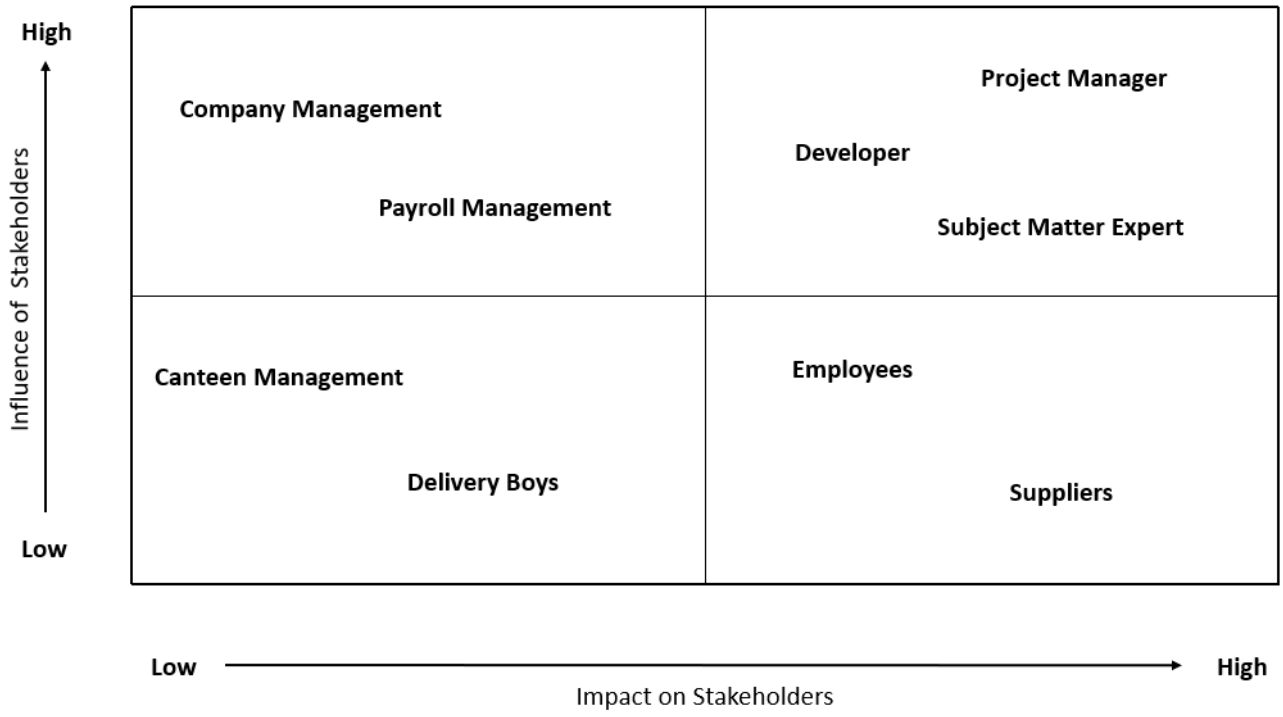
Context diagram gives a bird's eye view on the entire system and the data flows within. It shows how each section acts and how they transform data which they receive as input and give out as output for the next section or process point to carry out.

Online canteen acts as a center hub for all the data to flow and transform into their respective forms and flow into the next sector. Even when this is a loop, the center acts as a storage (mostly temporary) the initial trigger comes with the input from the employee side which triggers other entities even when it comes to the report generation at the end of each month (continuous process for continuous improvement and monitoring).

Stakeholder Matrix

Stakeholder Matrix grid helps in identifying the degree of involvement and influence of each stakeholders, which helps in identifying and structuring the processes forward. Especially deciding on ways to interact and collect requirements and segregate the participation in terms of the stages of new system solution setup. Other stakeholders who were not explicitly included are:

- Chef | Website maintenance | Operational Support | Employee representatives.



Knowledge areas explicitly used

- Business Analysis Planning and monitoring.
  - Plan Business Analysis Approach
  - Plan stakeholder engagement
  - Plan business analysis information Management
- Requirement Lifecycle Management
  - Trace Requirements
  - Prioritize requirements

- Approve requirements

❖ Requirement Analysis & Design Definition o
- Specify & Model Requirements
- Validate requirements
- Define requirements architecture
- Define design options

❖ Strategy Analysis
- Analyze Current State
- Define Future state
- Define change strategy

❖ Solution Evaluation
- Analyze performance Measures
- Asses solution limitations
- Recommend Actions to increase solution Value

ER Diagram

Diagram shows the flow structure and the entities that each unit stores and the triggers to activate and process that initiates the actions.

Mock Screen of Online System (Prototype)

figma.com/proto/4NGORFFcBk1m4GjONvzaIN/Untitled?type=design&node-id=6-7&t=86egbre1wYZcWI6R-0&scaling=min...

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