

UNIVERSITI TEKNOLOGI MALAYSIA

HUMAN COMPUTER INTERACTION (SECV2113)

PROJECT PART 2

Gathering Requirements - User Analysis

Student Name : 1. Angela Ngu Xin Yi (A24CS0226)

2. Evelyn Ang (A24CS0068)

3. Tan Xin Tian (A24CS0198)

4. Teoh Xin Yee (A24CS0307)

5. Toh Shee Thong (A24CS0309)

Lecturer Name : Assoc. Prof. Ts. Dr. Masitah Ghazali

Section : 1

Table of Contents

Gathering Requirements - Oser Analysis	
1.0 Introduction	3
2.0 Proposed Tasks	4
2.1 Order Food	4
2.2 Monitor and Manage Order Status	4
2.3 Upload Menu	4
3.0 Persona	5
3.1 Persona 1: Benny	5
3.2 Persona 2: Dr Aisha	6
3.3 Persona 3: Puan Siti	
4.0 Scenario	8
4.1 Task 1 - Order Food	8
Persona 1: Benny	
Persona 2: Dr Aisha	
4.2 Task 2 - Monitor and manage order status	9
Persona 1: Benny	9
Persona 2: Dr Aisha	9
Persona 3: Puan Siti	9
4.3 Task 3 - Upload Menu	
Persona 3: Puan Siti	10
Gathering Requirements - Task Analysis	12
1.0 Introduction	
1.1 Order Food	
1.2 Monitor and Manage Order Status	
1.3 Upload menu	
2.0 Derivation of Hierarchical Task Analysis (HTA)	
2.1 HTA for Task 1 - Order Food	
User 1: UTM Student	
User 2: UTM Staff	
Findings from HTA for Task 1	
2.2 HTA for Task 2 - Monitor and manage order status	
User 1: UTM Student	
User 2: UTM Staff	
User 3: Restaurant Owner in UTM Arked	
Findings from HTA for Task 2	
2.3 HTA for Task 3	
User 3: Restaurant Owner in UTM Arked	
Findings from HTA for Task 3	22
A II LIESIGN REGILIPEMENTS	·) ·

1.0 Introduction

A user analysis was conducted to identify and examine three primary user groups of the current system by developing one representative persona for each group. These personas encapsulate common characteristics, behaviors, needs and goals. This provides a clearer picture of the diverse user base. To gain a comprehensive understanding of their expectations and pain points, three main tasks closely related to the proposed solutions were selected. These tasks offer valuable insights into possible usability challenges and areas for enhancement. For each persona, a realistic scenario has been crafted to illustrate the context in which these tasks are typically performed. By connecting the user needs derived from the persona analysis with specific, high-impact system functionalities, we can ensure that our proposed improvements directly address practical user frustrations. The following section outlines the core tasks selected for deeper analysis, each representing a common user journey that significantly contributes to the overall user experience and satisfaction.

2.0 Proposed Tasks

As part of the user analysis for the existing system, several key tasks have been identified for further examination. These tasks were selected based on their frequency of use and their significance to the overall functionality of the system. This analysis aims to analyze how users currently interact with these tasks in order to identify any potential usability issues, inefficiencies, or ways for improvement. The proposed tasks for analysis are as follows:

2.1 Order Food

This task involves the process of selecting and purchasing meals through the platform. It includes browsing available restaurants or food stalls, viewing menu items, customizing orders and applying promotional vouchers or discounts during checkout. A smooth and efficient ordering process is crucial for user satisfaction, especially during time-constrained situations. Challenges in this task may include limited filtering options, confusing interfaces and unclear discount availability. These can delay decision-making and lead to user frustration.

2.2 Monitor and Manage Order Status

Once an order is placed, users need to be able to track its progress. This includes viewing preparation status, estimated delivery time, live rider location and receiving updates. Additionally, users may need to contact support if problems arise. The effectiveness of this task is crucial in ensuring transparency, reducing uncertainty, and maintaining user trust.

2.3 Upload Menu

This task focuses on vendors' ability to upload or update their menus. It includes uploading new food items, editing existing listings, adding descriptions or dietary labels (e.g., vegetarian, halal), and configuring promotional deals. A smooth and intuitive interface for managing menu content is vital for vendors to keep their offerings current and accurate, which directly impacts customer satisfaction and sales.

3.0 Persona

3.1 Persona 1: Benny



Figure 1: Picture of Student (https://www.vecteezy.com/photo/26911382-happy-student-boy-with-books-isolated)

Benny is a second-year Data Engineering student at University of Technology Malaysia (UTM) who often has to use food delivery services due to his busy academic schedule and the impossibility to cook in his hostel. Convenience and speed are the most important considerations for him when choosing meals because he often places orders during study sessions or sometimes even between classes. As a budget-conscious student, he always looks out for discounts, vouchers and any promotions available to support his limited budget effectively. Relying on food delivery is not just a matter of convenience but it is a necessity shaped by his environment and lifestyle.

Despite being a regular user of food delivery applications, Benny faces many challenges. He often gets bound by times and has no idea what to do in such a situation, leading to skipped meals at times. His primary concerns are the potential loss of access to prompt promotions and the accidentally ordering food that does not meet his dietary preferences. Therefore, Benny focuses on quickly discovering low-priced meals that suit his preferences, making the best use of all discounts available, and ensuring he does not end up making mistakes in the ordering process.

If the app offered clearer promotion filters and accurate voucher notifications, Benny could easily find affordable meals that suit his preferences within minutes. This would help him save time, stick to his budget and avoid missing meals between classes. Then, he could stay focused, energized and more productive throughout the day.

3.2 Persona 2: Dr Aisha



Figure 2: Picture of UTM Staff (https://images.app.goo.gl/7Sb2DzTUAsyHGSEx6)

Dr. Aisha is a dedicated university professional who has a hectic schedule and leaves little time for meal planning. As a Muslim vegetarian, she requires quick access to convenient and halal-certified vegetarian meals that align with her dietary and religious requirements. However, she often struggles to find it. Her biggest worry is the difficulty in locating halal and vegetarian cuisine options on food delivery platforms due to the lack of filtering systems that force her to manually sit through the options. The time she wastes scrolling through irrelevant options makes her feel annoyed, as it disrupts her tight schedule. Without any good food labels, she becomes even more frustrated because she can't always check if a meal is suitable before she orders.

Her primary goal is to filter food options instantly to match her dietary preferences. She faces challenges due to unclear menu labeling and limited filtering tools. Dr. Aisha needs a solution that saves time and ensures her meals meet her dietary requirements without unnecessary effort. She wishes to have an ideal solution that would provide one-click access to verified halal vegetarian options with clear labeling. A more intuitive system would help her order food quickly and get back to her work without delays.

With reliable filters and verified dietary labels, Dr Aisha could quickly find halal vegetarian meals that meet her religious and nutritional needs. This would reduce her daily stress, help her manage her short breaks more effectively. Moreover, she can eat with peace of mind without wasting time scrolling through irrelevant options.

3.3 Persona 3: Puan Siti

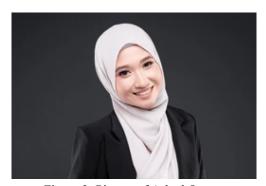


Figure 3: Picture of Arked Owner (https://docs.google.com/document/d/1aq-bWVNCEEsDqPTfoscOUnRRqjREqtCkDerJQzcqDLk/edit?usp=sharing)

Puan Siti operates a noodle stall at Arked UTM and often uses food delivery apps to reach more customers. She hopes that by offering daily deals on the app, she will be considered as the right destination for the student community to look for discounts. However, she faces difficulties. Puan Siti does not know if the menu and special offers are displayed properly on the app. It is a big concern for her as she thinks that the customers will not get her deals. Therefore, her main worry is whether her meals with specific diet labels like halal or vegetarian come up when people search for them. Consequently, her expansion during peak hours is limited as she is losing opportunities from the clique of students who apply dietary restrictions because of the wrong placement of her items.

Puan Siti's main goals are to boost online orders and enhance customer satisfaction through clear communication. She struggles to manage the labelling and presentation of her cuisine on the app, which occasionally results in miscommunications or unfavourable ratings. For instance, it is possible that the vegetarian noodle dish does not show up during the search because of irrelevant tags. Through better search results and employing appropriate menu management tools, Puan Siti will be able to not only improve her online presence and minimize order discrepancies but also create stronger bonds with her customers at the university. If she had a more user-intuitive seller interface, these objectives would be within her reach, including the fact that she can still do her daily tasks without getting troubled.

If the menu tagging and promotion display systems were improved, Puan Siti would be able to confidently showcase her dishes to the right customers, especially those with dietary preferences. This would boost her online visibility, reduce customer complaints and help her grow her small business while maintaining her regular kitchen routine without extra hassle.

4.0 Scenario

4.1 Task 1 - Order Food

Persona 1: Benny

Benny's stomach growled as he hurriedly opened the food delivery app between classes, he only had 20 minutes to place a food order and have it delivered. He opened the delivery app, hoping for a reasonably priced meal. The app lacks a detailed filter for promotions, so he cannot filter the promotion he wants. He had to scroll through each and every restaurant manually to look for the discounted offers in the menu set that suited him. It took too long since he cannot view the available vouchers unless he adds items to the cart and proceeds to the checkout. He finally found an RM6 meal. At checkout, he found that some vouchers cannot be used. Benny felt angry and gave up ordering food from the app. After shutting down the app, he headed to class hungry and difficult to concentrate when he skipped the meals.

This keeps happening every day, and his time and money are wasted by the app. The discounts expired with little to no notification, leading Benny to miss the offers. Then, he began purchasing food from the vending machine after losing trust in the app. The snacks were expensive and unhealthy. But they were quick, so he didn't miss class. However, he still felt tired and frustrated because his stomach growled during lectures. He wished there was an improvement to the app so that he could save time and worry. But nothing changed. Thus, Benny kept struggling, hungry and annoyed, just trying to get through the day.

Persona 2: Dr Aisha

Between classes, Dr Aisha had only 30 minutes to order her lunch. Because there was no filter for both vegetarian and halal, the app made it difficult for her to have a vegetarian halal meal. With no choice, she first searched for halal restaurants. Then, she had to check vegetarian options on each menu on her own. Some restaurants claimed to be halal but had no certification. This made her unsure if the food was truly halal. After 10 minutes of scrolling, she finally picked a meal. By the time she finished ordering, her break was almost over.

This annoying experience happened regularly as the app's poor filter wasted her precious breaks. Unverified halal labelling caused her to doubt the food, forcing her to spend too much time looking without clear filters. Sometimes, she occasionally missed meals to save herself the trouble. Other times, she ate snacks just to help her stay focused. Therefore, she wished the app had better features for dietary needs to prevent her from keeping rushing to class hungry.

4.2 Task 2 - Monitor and manage order status

Persona 1: Benny

Benny finally placed his order after struggling with the app. A notification soon popped up that said "Delivery delayed." without any reason given. When he attempted to check the order status, it just displayed the rider's slowly moving location. He phoned the delivery man but no one picked up.

Then, Benny turned to customer support in order to get an answer. He tapped "Order Details," and scrolled to the bottom to find a tiny "Help" button, then waded through irrelevant options before finally selecting "Delivery Issues." After a 15-second loading screen, he was greeted by a useless chatbot that kept parroting, "Your rider is on the way." After 30 minutes, his food arrived cold with missing items. By then, he had to rush to class, leaving half his meal untouched. The whole experience left him frustrated. He wasted money on food he couldn't eat and lost study time dealing with support. This makes him afraid to place another order because of the bad tracking and unhelpful customer care. Next time, he could just go without food; at least it was less stressful than having to deal with yet another unsuccessful delivery.

Persona 2: Dr Aisha

Dr Aisha still did not get her lunch after 30 minutes waiting. She tried to check where the rider was but the map showed that the rider did not move. This tracking system of the app already caused her daily stress as she was unable to determine if the delays were traffic issues or wrong directions. Sometimes riders just circled her building without entering.

After a long time waiting, Dr Aisha finally got her lunch box but instead of vegetarian cuisine, she spotted meat. Before her next lesson, she had to have things fixed as soon as possible. So she tried to contact support, but the help section was buried deep in menus (Account → Support → Help Centre → Chat to get help). The chatbot only gave automated replies about delivery status. It fails to understand her complaint since the questions deviate from predefined issues provided. Moreover, there was no way to call the restaurant directly. She felt her break time slipping away. She thought that maybe a better map or delay alerts could help, but the app stayed unreliable. Now, she no longer believes in delivery promises. Dr. Aisha has started bringing emergency snacks with her now, having learned the hard way that she can't rely on the broken system when she's starving between classes.

Persona 3: Puan Siti

During the hectic lunchtime rush, Puan Siti's kitchen was busy with lunch orders. In the merchant app, her food was tagged "Ready for Pickup" and was steamed and packed. However, no rider came to collect them. Anxiously, she tapped the app, but there was no way to contact the assigned driver. The

order timer kept climbing—5 minutes late, then 10, then 15. Then, she began receiving messages from hungry customers enquiring about where their meals were.

She tried using the merchant assistance chatbot to find out where the rider is. Unfortunately, all it said was, "Your rider is on the way." However, she could not stand in the long lineup at the customer service hotline during peak hours. The food became cold since there was no way to fix the issue. Furthermore, customers choose to cancel orders and leave angry reviews regarding the delayed deliveries. So, Puan Siti suffered both money and reputation loss. The app's inadequate tracking and communication negatively impact her small business daily. She needed real-time updates or a way to request new riders, but the system does not allow this. Now, she can only alert customers about the possible delays and feel ashamed as she cannot provide better service.

4.3 Task 3 - Upload Menu

Persona 3: Puan Siti

Puan Siti wanted to add her special vegetarian laksa to the online menu but there was no explicit and comprehensive option for dietary labelling on the merchant site. She must have typed "vegetarian" in the description box herself. However, her laksa never showed up when customers looked for vegetarian fare. This is because the system has no "vegetarian" tag for filters, not her handwritten note. She attempted to call for assistance but received no useful answer.

More issues occurred when the dish was promoted. For example, when she listed a dish as a special deal, it often disappeared from the promotions section without any justification. She was unable to respond when customers enquired about the missing deal. These technical issues hurt her business as vegetarian customers could not find her speciality dish. Puan Siti felt frustrated because the app limited her growth instead of helping. She hoped to reach more customers, but the broken system prevented her from doing so.



UNIVERSITI TEKNOLOGI MALAYSIA

HUMAN COMPUTER INTERACTION (SECV2113)

PROJECT PART 2

Gathering Requirements - Task Analysis

Student Name : 1. Angela Ngu Xin Yi (A24CS0226)

2. Evelyn Ang (A24CS0068)

3. Tan Xin Tian (A24CS0198)

4. Teoh Xin Yee (A24CS0307)

5. Toh Shee Thong (A24CS0309)

Lecturer Name : Assoc. Prof. Ts. Dr. Masitah Ghazali

Section : 1

1.0 Introduction

This study evaluates the Grab food delivery application, commonly used by students, lecturers, and vendors within the Universiti Teknologi Malaysia (UTM) community. This app connects local vendors with customers—primarily students and staff—allowing them to browse restaurants, search for meals, apply vouchers, place orders, and track deliveries. Vendors use a merchant version of the app to manage menus, promote dishes, and respond to feedback.

Despite its widespread use, the app has several usability and functional issues affecting all user groups. This study focuses on three core tasks to observe these challenges:

1.1 Order Food

This task explores how customers place food orders. Users face difficulty finding relevant meal deals, filtering for dietary preferences, and applying vouchers, which are only confirmed at checkout. Students, in particular, struggle with time and budget constraints, leading to frustration over the manual effort required.

1.2 Monitor and Manage Order Status

This task focuses on how users track orders after placement. While tracking is available, updates like "Your rider is coming soon" lack detail. When delays occur, users turn to the in-app support, which provides generic replies. This creates stress and confusion, especially for students and staff relying on timely deliveries.

1.3 Upload menu

This task reviews how vendors manage their menus and promotions. Merchants report missing dietary tags and bugs that cause promoted items to disappear. Help center support is often vague, leaving issues unresolved and impacting business visibility.

By focusing on these three representative tasks, this study identifies key usability barriers and proposes areas for design and system improvement.

2.0 Derivation of Hierarchical Task Analysis (HTA)

2.1 HTA for Task 1 - Order Food

User 1: UTM Student

Video Link: Task 1 UTM Student

- 0. Order Food
- 1. Open food delivery app
 - 1.1. Sign Up
 - 1.2. Log In
- 2. Search for meals with promotions
 - 2.1. Scroll through restaurant list
 - 2.2. Manually check for menu promotions
- 3. Check meal price and suitability
 - 3.1. Evaluate if price is affordable
 - 3.2. Select meal and add to cart
- 4. Apply available vouchers
 - 4.1. Proceed to checkout
 - 4.2. Review list of vouchers at checkout
 - 4.3. Attempt to apply voucher
 - 4.4. If voucher not applicable, return to menu
- 5. Finalize and place order
 - 5.1. Review order details
 - 5.2. Confirm delivery time
 - 5.3. Make payment

Plan 0: Do $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5$

Plan 1: If new user do 1.1

If regular user do 1.2

Plan 2: Do $2.1 \to 2.2$

Plan 3: Do $3.1 \to 3.2$

Plan 4: Do $4.1 \rightarrow 4.2 \rightarrow 4.3$

if 4.3 fails, do $4.4 \rightarrow 2$

Plan 5: Do $5.1 \rightarrow 5.2 \rightarrow 5.3$

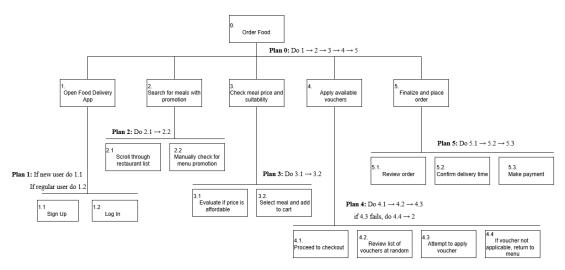


Figure 1: Textual HTA of UTM Student for Task 1

User 2: UTM Staff

Video link: Task 1 UTM Staff

- 0. Order Food
- 1. Open food delivery app
 - 1.1. Sign Up
 - 1.2. Log In
- 2. Search for vegetarian restaurants
 - 2.1. Manually filter for vegetarian
 - 2.2. Browse vegetarian restaurants/menus
- 3. Check for halal certification
 - 3.1. View restaurant profile for halal status
 - 3.2. Verify ingredients and food type
- 4. Select a meal
 - 4.1. Add to cart
 - 4.2. Confirm suitability
- 5. Proceed to checkout
 - 5.1. Review order details
 - 5.2. Confirm delivery timing
 - 5.3. Make payment

Plan 0: Do $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5$

Plan 1: If new user do 1.1

If regular user do 1.2

Plan 2: Do $2.1 \to 2.2$

Plan 3: Do $3.1 \to 3.2$

If fail 3.1 or 3.2, do 2

Plan 4: Do $4.1 \rightarrow 4.2$

Plan 5: Do $5.1 \rightarrow 5.2 \rightarrow 5.3$

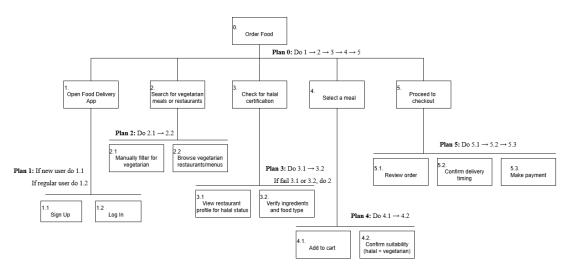


Figure 2: Textual HTA of UTM Staff for Task 1

Findings from HTA for Task 1

- Both UTM student and lecturer face time-sensitive food ordering challenges
- The promotion system is inefficient and unreliable for searching meals and apply vouchers
- Utm student requires manually scroll and verify deals, and vouchers can only be checked at checkout.
- The system dietary preference filtering is too basic.
- UTM lecturer need manually check for halal certification, after selecting vegetarian meals
- The system can introduce combine dietary filter such as halal and vegetarian
- The system should allow users to view applicable vouchers before checkout
- The system can add halal certifications to the profile in order to expedite the food ordering process

2.2 HTA for Task 2 - Monitor and manage order status

User 1: UTM Student

Video Link: Task 2 UTM Student

- 0. Monitor and manage order status
- 1. Open the food delivery application
 - 1.1. Log in
 - 1.2. Receive "Delayed Delivery" message
- 2. Select current active order
 - 2.1. Identify ongoing or most recent order
 - 2.2. Tap the order to open its details
- 3. Track the order progress
 - 3.1. View food preparation status ("Your driver is coming soon")
 - 3.2. Monitor the rider's live location on the map
 - 3.3. Check estimated time of arrival (ETA)
- 4. Take action if problems occur
 - 4.1. Try contacting the rider via in-app call
 - 4.2. Access the help section and chatbot
 - 4.3. Attempt to ask why the delay occurred
 - 4.4. Receive the default reply
- 5. Finalize the order
 - 5.1. Receive confirmation of delivery
 - 5.2. Rate the rider and service experience
 - 5.3. Submit feedback for improvement

Plan 0: Do
$$1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5$$

Plan 1: If the user has not logged in, do $1.1 \rightarrow 1.2$ If the user has logged in, do 1.2

Plan 2: Do
$$2.1 \to 2.2$$

Plan 3: Do
$$3.1 \to 3.2 \to 3.3$$

Plan 4: Do
$$4.1 \rightarrow 4.3$$

If fail 4.1, do
$$4.2 \rightarrow 4.3 \rightarrow 4.4$$

Plan 5: Do
$$5.1 \rightarrow 5.2 \rightarrow 5.3$$

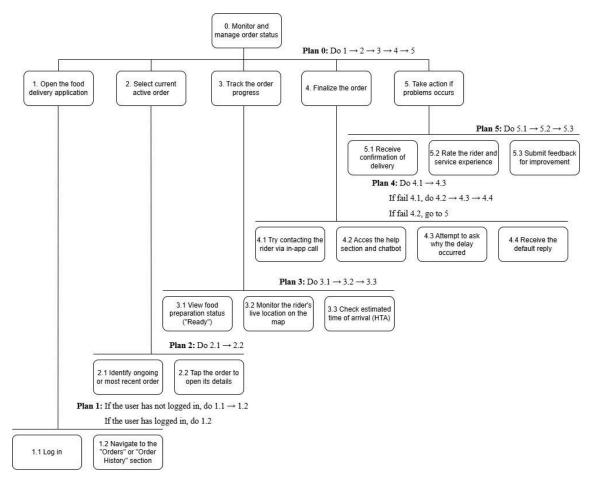


Figure 3: Textual HTA of UTM Student for Task 2

User 2: UTM Staff

Video Link: Task 2 UTM Staff

- 0. Monitor and manage order status
- 1. Open the food delivery application
 - 1.1. Log in
 - 1.2. Navigate to the "Orders" or "Order History" section
- 2. Select current active order
 - 2.1. Identify ongoing or most recent order
 - 2.2. Tap the order to open its details
- 3. Track the order progress
 - 3.1. View food preparation status ("Ready")
 - 3.2. Monitor rider's live location on map
 - 3.3. Check estimated time of arrival (ETA)
- 4. Finalize the order
 - 4.1. Receive confirmation of delivery
 - 4.2. Rate the rider and service experience

- 4.3. Submit feedback for improvement
- 5. Take action if problems occur
 - 5.1. Receive non-vegetarian food
 - 5.2. Access the help section and chatbot
 - 5.3. Attempt to report the wrong meal and get a refund
 - 5.4. Receive the default reply

Plan 0: Do $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5$

Plan 1: If the user has not logged in, do $1.1 \rightarrow 1.2$ If the user has logged in, do 1.2

Plan 2: Do $2.1 \to 2.2$

Plan 3: Do $3.1 \to 3.2 \to 3.3$

Plan 4: Do $4.1 \rightarrow 4.2 \rightarrow 4.3$

If fail 4.2, go to 5

Plan 5: Do $5.1 \rightarrow 5.2 \rightarrow 5.3 \rightarrow 5.4$

If 5.4 does not work, end

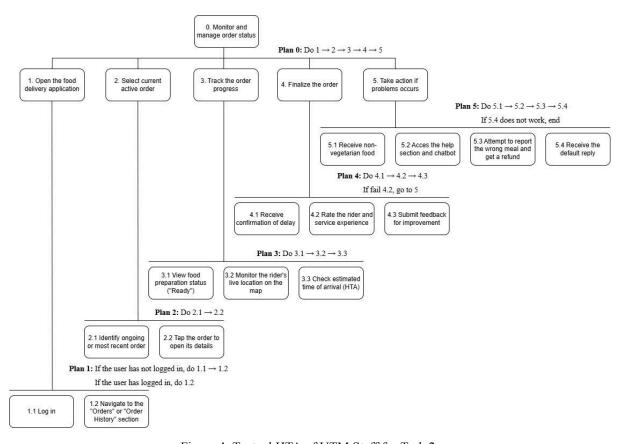


Figure 4: Textual HTA of UTM Staff for Task 2

User 3: Restaurant Owner in UTM Arked

Video Link: Task 2 UTM Arked Restaurant Owner

- 0. Monitor and manage order status
- 1. Open the food delivery application
 - 1.1. Log in
 - 1.2. Navigate to the "Orders" or "Order History" section
- 2. Select current active order
 - 2.1. Identify ongoing or most recent order
 - 2.2. View status ("Ready for Pickup")
- 3. Track rider
 - 3.1. Look for rider info (none shown)
 - 3.2. Try contact (no option available)
- 4. Use chatbot support
 - 4.1. Open chatbot
 - 4.2. Ask about rider
 - 4.3. Receive default reply
- 5. Respond to customers
 - 5.1. Read complaints
 - 5.2. Reply manually
 - 5.3. Apologize
- **Plan 0:** Do $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5$
- **Plan 1:** If the user has not logged in, do $1.1 \rightarrow 1.2$ If the user has logged in, do 1.2
- **Plan 2:** Do $2.1 \to 2.2$
- Plan 3: If 3.1 fails to show rider info, do 3.2
- Plan 4: If 3.2 fails (no contact option), do 4
 - If 4.3 is unhelpful, go to 5
- **Plan 5:** For each customer message, do $5.1 \rightarrow 5.2 \rightarrow 5.3$

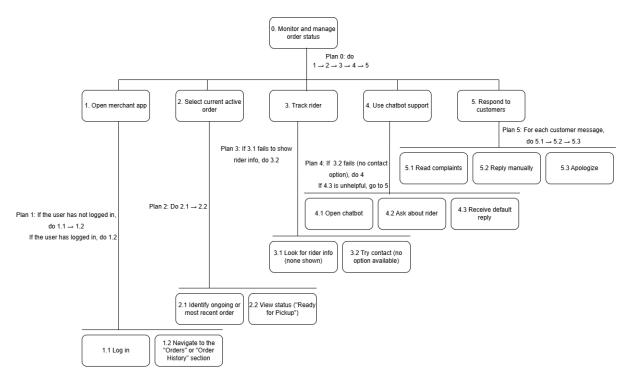


Figure 5: Textual HTA of Restaurant Owner in UTM Arked for Task 2

Findings from HTA for Task 2

- All three users encountered difficulty accessing help features, limited information transparency and ineffective communication tools.
 - > They had to dig through menus to access help or track orders.
 - > The status messages like "Your rider is coming soon" were vague and not actionable besides no reasons were provided for delays or errors.
 - > The chatbot provided generic, repetitive replies instead of context-aware responses.
- UTM student experienced poor order tracking and vague updates when her food delivery was delayed. For UTM lecturer, she struggled to report the issue due to a generic, unresponsive chatbot. Meanwhile, the vendor faced communication challenges because the system failed to show rider information.
- The system should retain useful features such as live rider tracking, push notifications for updates and post-delivery feedback options.
- Some key improvements are needed, such as informative status messages, accessible help features, more context-aware responses from the chatbot, access to real-time rider data and smart tools for customer communication.

2.3 HTA for Task 3

User 3: Restaurant Owner in UTM Arked

Video link: Task 3 UTM Arked Restaurant Owner

- 0. Upload a new dish to menu
- 1. Open merchant app
 - 1.1. Log in
 - 1.2. Go to Menu section
- 2. Add new dish
 - 2.1. Tap "Add Item"
 - 2.2. Enter dish name ("Vegetarian Laksa")
 - 2.3. Add photo
 - 2.4. Write description ("vegetarian")
- 3. Add dietary or filter tags
 - 3.1. Look for tagging options (none available)
 - 3.2. Leave "vegetarian" in description only
- 4. Promote the dish
 - 4.1. Tap "Special Deal"
 - 4.2. Save changes
 - 4.3. Dish disappears from promotion
- 5. Get support
 - 5.1. Try help center
 - 5.2. Receive unclear or no solution

Plan 0: Do
$$1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5$$

Plan 1: Do $1.1 \to 1.2$

Plan 2: Do 2.1 \rightarrow 2.2 \rightarrow 2. 3 \rightarrow 2.4

Plan 3: If no tagging option in 3.1, do 3.2

Plan 4: If dish disappears from promotion in 4.3, proceed to 5

Plan 5: Do $5.1 \rightarrow 5.2$; if no clear support, stop

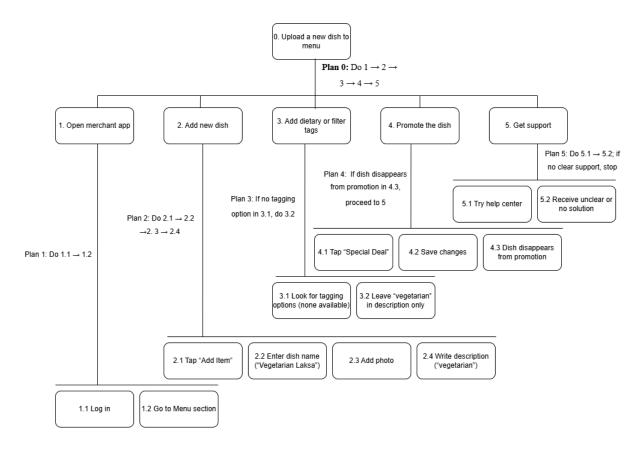


Figure 6: Textual HTA of Restaurant Owner in UTM Restaurant for Task 3

Findings from HTA for Task 3

- Restaurant owner can upload menu items easily, but the system lacks dietary tags like "vegetarian," which affects dish visibility.
- The promotion feature is unreliable—items sometimes disappear after being added.
- The help centre support gives unclear responses, leaving problems unresolved.
- These issues limit her business growth and cause confusion for customers.
- The app could improve by adding proper tags, fixing promotion bugs, and offering better support.

3.0 Design Requirements

Based on the usability concerns identified across the three tasks — food ordering, order tracking and menu uploading, some design changes are proposed to address the issues that users faced and improve the overall experience for both customers and merchants. First, the system should retain useful features such as live rider status tracking, push notifications and post-delivery feedback in order to provide consumers with transparency. However, unclear status updates (e.g. "Your rider is coming soon") and poorly accessible help features must be re-designed—users currently face a laborious navigation process (Account → Support → Help Centre → Chat) just to ask for assistance, which is unacceptable for time-sensitive issues. Users like UTM student and UTM lecturer were annoyed when they needed to dig through menus for basic support, indicating a critical need for immediately accessible, context-aware support such as a persistent help button or integrated chat on every order screen. Besides, status messages must be more informative and specific to reduce user anxiety during delays. The generic responses of the chatbot also undermine trust, suggesting an all-new move to AI-powered, dynamic support that is capable of anticipating issues like late deliveries or lost orders.

Secondly, the process of finding and checking out the food has to be enhanced. Although the overall task flow is good, but the inefficient filtering (i.e., no upfront halal labeling) and hidden vouchers introduce unnecessary friction. UTM student's frustration with the necessity to manually verify deals and UTM lecturer's extra step of re-verifying halal and vegetarian meals show that there is a need for active dietary preference marking and promotion visibility upfront. Therefore, the system should preserve search functionality but enhance it with smart filters so that users can choose both "vegetarian" and "halal" tags at the same time and one-click voucher application—eliminating the checkout-only voucher check.

Third, merchant-side tools must be clear and reliable. According to restaurant owner's experience, missing dietary tags and buggy promotions hurt business growth even if menu uploads are easy. Thus, the system should keep the simple upload routine but add structured tagging options such as vegan or gluten-free and stabilize promotions to prevent disappearing items. Moreover, the vendor support needs to move beyond generic chatbots—adding human-assisted escalation paths and real-time rider data to facilitate more customer communication. By addressing these pain points and keeping functional strengths in place, the design can be aligned with expectations around speed, transparency, and control.