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ALTERNATIVE ASSESSMENT: HEURISTIC EVALUATION

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Table of Contents

Introduction	3
Method	4
Results.....	7
Discussion.....	22
Conclusion.....	24
References	24

Introduction

This report is about a report on my case study which is heuristic evaluation on a website which with link (<https://ezbuy.my/>) It contains all of the heuristic evaluation that I want to highlight from the website.

This website's name is ezbuy. ezbuy is an e-commerce website that is based in Singapore that is owned by Wendy Liu. ezbuy is Singapore's largest global online shopping platform and leader in cross-border e-commerce in Southeast Asia. Ezbuy offers a lot of service which including "Shop with ezbuy" where customer can buy anything that is available on the website. Besides, it also provides service like "Prime membership" where they will provide the extra care services to the prime members. As example, the prime members will get RM8.80 unlimited flat shipping regardless of weight, size and quantity. They will also receive exclusive vouchers and rewards. Not to forget, they also will give exclusive discounts to the prime members.

In my scope of job, I will evaluate the website by using **heuristic evaluation**. A heuristic evaluation is a convenience investigation strategy for computer software that assists with distinguishing ease of use issues in the (UI) structure. It explicitly includes evaluators analysing the interface and making a decision about its consistence with perceived ease of use standards.

Method

A heuristic evaluation is an ease of use investigation technique fundamentally used to distinguish any structure issues related with the UI (Liyanage, 2016). It explicitly includes evaluators inspecting the interface and making a decision about its consistence with recognized usability principles. There are various types of method in heuristic evaluation that I personally find it's quite helpful with my case study. From what I have found, firstly is **Nielsen Heuristic Evaluation**. Jakob Nielsen's heuristics are likely the most-utilized ease of use heuristics for UI plan. Nielsen built up the heuristics dependent on cooperate with Rolf Molich in 1990. The last arrangement of heuristics that are as yet utilized today were discharged by Nielsen in 1994. I think that is **Nielsen Heuristic Evaluation** is suitable for my case study because It is a detailed, practically a stable procedure that assesses the item against clear standards.

Besides, **The Eight Golden Rules of Interface Design** owned by Ben Shneiderman (Shneiderman, 2016). Shneiderman proposed this assortment of rules that are gotten heuristically for a fact and relevant in most intuitive frameworks in the wake of being appropriately refined, expanded, and interpreted. To improve the ease of use of an application it is essential to have an all-around planned interface. Shneiderman's "Eight Golden Rules of Interface Design" are a manual for good connection structure. This Golden Rules by Ben Shneiderman is also can be considered as functional to my case study

Lastly, **Gerhardt Powals' principles** which was developed by Jill Gerhardt-Powals. Jill Gerhardt-Powals built up a lot of cognitive engineering principles for upgrading human-PC performance. These heuristics, or standards, are like Nielsen's heuristics yet adopt a progressively comprehensive strategy to evaluation.

For my case study, I decided to combine **Nielsen Heuristic Evaluation** with **Shneiderman Eight Golden Rules**. This is a list of heuristic evaluation that I have chose to be in my case study:

Nielsen Heuristic Evaluation

1. *Visibility of system status* - The system ought to consistently keep users informed about what is happening, through suitable input inside sensible time. (Nielsen, 10 Usability Heuristics for User Interface Design, 1994)
2. *Match between system and the real world* - The system ought to communicate in the users' language, with words, expressions and ideas recognizable to the user, instead of system arranged terms. Follow certifiable shows, causing data to show up in a characteristic and consistent request. (Nielsen, 10 Usability Heuristics for User Interface Design, 1994)
3. *User control and freedom* - Users frequently pick system functions unintentionally and will require an obviously checked "emergency exit" to leave the undesirable state without experiencing an all-inclusive exchange. Backing fix and re-try. (Nielsen, 10 Usability Heuristics for User Interface Design, 1994)
4. *Error prevention* - Good error messages is a cautious structure which keeps an issue from happening in any case. Either wipe out mistake inclined conditions or check for them and present users with a confirmation choice before they focus on the activity. (Nielsen, 10 Usability Heuristics for User Interface Design, 1994)

5. *Recognition rather than recall* - Limit the user's memory load by making objects, actions, and options visible. The user ought not need to recall data starting with one piece of the exchange then onto the next. Directions for utilization of the system ought to be noticeable or effectively retrievable at whatever point fitting. (Nielsen, 10 Usability Heuristics for User Interface Design, 1994)
6. *Flexibility and efficiency of use* - accelerate the communication for the master client to such an extent that the system can take into account both unpracticed and experienced clients. Permit users to tailor frequent actions. (Nielsen, 10 Usability Heuristics for User Interface Design, 1994)
7. *Aesthetic and minimalist design* - Dialogues ought not contain data which is unimportant or once in a while required. Each additional unit of data in a discourse contends with the applicable units of data and reduces their relative visibility (Nielsen, 10 Usability Heuristics for User Interface Design, 1994)
8. *Help and documentation* - Despite the fact that it is better if the system can be utilized without documentation, it might be important to give assistance and documentation. Any such data ought to be anything but difficult to look, concentrated on the users's undertaking, list solid strides to be completed, and not be excessively huge. (Nielsen, 10 Usability Heuristics for User Interface Design, 1994)

Shneiderman Eight Golden Rules

1. *Offer simple error handling* - the system needs to make it simple for the user to comprehend the issue and skill to illuminate it. Basic approaches to deal with blunders incorporate showing clear mistake notices alongside graphic insights to tackle the issue. (Santos, 2018)
2. *Reduce short-term memory load* - For instance, in a web based business condition, a list of recently viewed or purchased items. (Santos, 2018)

In this heuristic evaluation case study, I will use **Severity Rating System**. Severity ratings can be utilized to distribute the most assets to fix the most significant issues and can likewise give an unpleasant gauge of the requirement for extra ease of use endeavors. On the off chance that the Severity evaluations show that few terrible ease of use issues stay in an interface, it will most likely be unadvisable to discharge it. However, one may choose to proceed with the release of a system with a few ease of use issues in the event that they are totally decided as being cosmetic in nature. (Nielsen, Severity Ratings for Usability Problems, 1994)

In this heuristic evaluation case study, I want to evaluate the efficiency of the system while doing some task as a new customer there. My persona that will be testing this system is Puan Maznah, 59 years old. She is a woman who lives alone in Ipoh, Perak. She doesn't like going to the crowded shopping mall to buy her needs as she is a person who is shy and afraid of crowded places. In addition, with the current situation of the world with the coronavirus, she prefers stay at home. She will buy everything her needs through e-commerce online shopping mall.

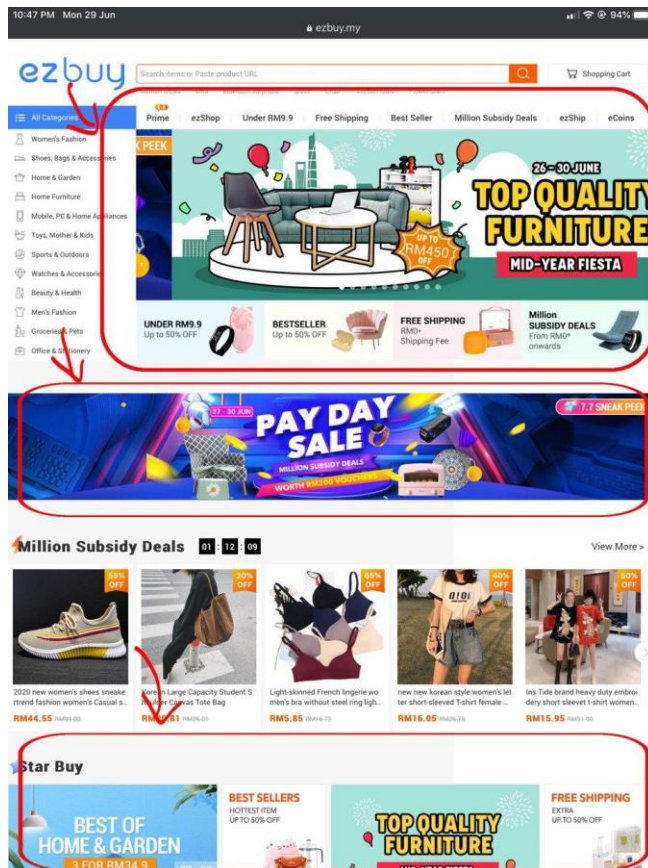
One day, she found out about ezbay. She wanted to give this website a try. She **decided to set up her account**. Firstly, she is required to register as she is a new user. She used google account to register. Then she went to the setting to add her current address info. She also adds her birthdate so that the website keeps her data.

Then, she **decided to review a product**. Firstly, she clicked the search bar and typed "hijab". Lots of recommendations has been displayed. She chose the one that caught her eyes and heart by clicking the picture displayed. She then read all of the review and the details that the seller has put in the details section, but she still got unexplained questions in her head. She **decided to try chat** with the seller because she has a question regarding the hijab. She tries to search everywhere on that page, any chat icon so that she can privately chat with the seller. She even went to the seller profile to find whether is there any way she can contact the seller. Here she found out that the website is actually has problems.

Results

PROBLEMS ENCOUNTERED

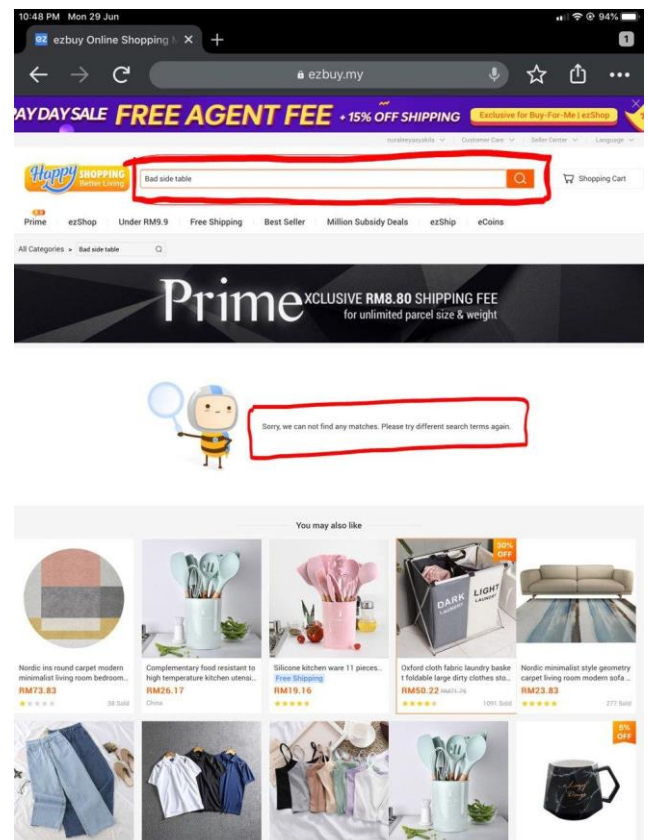
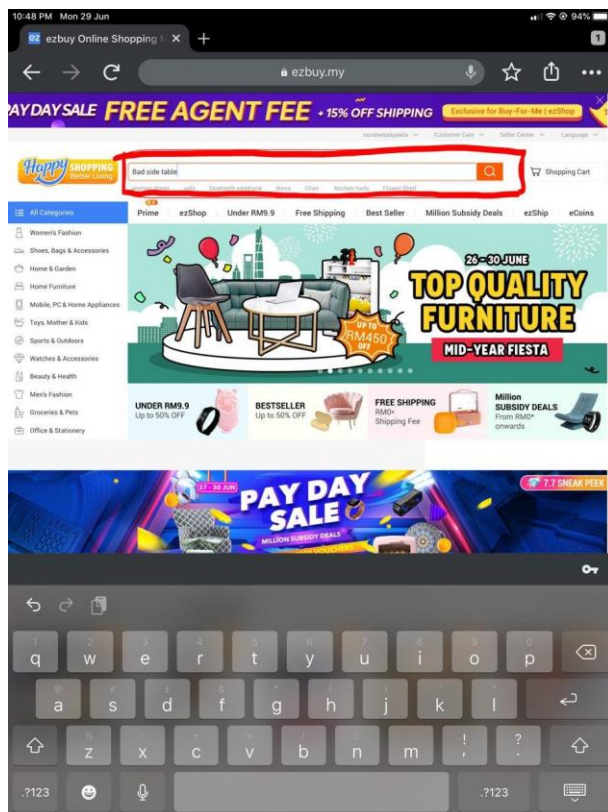
1. Violate heuristic: **Aesthetic and minimalist design** (Nielsen Heuristic Evaluation)



In the above screenshot, this is my first interface as I open ezbuy. This is too much of information which I personally think it's too crowded for a homepage. Homepage should not be this crowded (too many wording and promo photos) as homepage should be minimalist so it won't cause any shock to any newbie customer. Too many ads and crowded homepage will leaving new visitors confused and looking for another answer to their problem. (Shuda, 2012)

For this problem, I rate it as **cosmetic issue** as having a crowded homepage does not affect a customer's activity. So, this doesn't count as a "big problem". This is just to make the website looking more minimalist and trustworthy.

2. Violate heuristic : **Error Prevention** (Nielsen Heuristic Evaluation)



Based on the screenshot above, I purposely mistyped “bed side table” as “bad side table”. The system didn’t even re-correct me as a user who mistakenly type. This will cause problem when what if a user don’t know how to spell a product specifically by its name, so he/she will type the closest as they can at the search bar but there’s no help from the system to recognize an obvious typo from the user.

From my point of view, this type of problem is a **major issue**. This definitely will make the user disappointed as they can’t find the one that they desired to buy only because they typed the name of the product that they were trying to find wrongly.

3. Violate heuristic : **User control and freedom** (Nielsen Heuristic Evaluation)

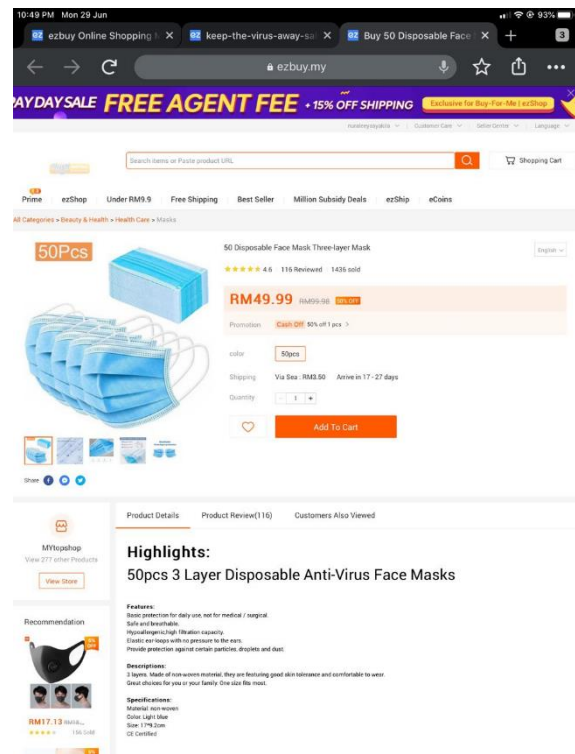
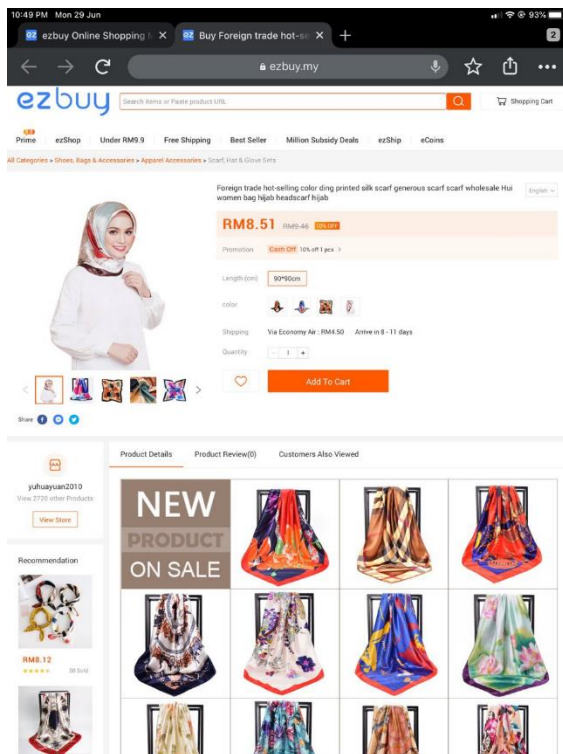
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ezbuy Online Shopping | X +
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DAYDAYSale FREE AGENT FEE + 15% OFF SHIPPING Exclusive for Buy-For-
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Announcement
My Favorite
My Orders
All Orders
To Pay(S)
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Pending Reply
Cancelled
My Review
Product Review
Service Review
ezShip
Forwarding Address
My Payment
My Available Amount
Payment History
My Credits
My eCoins
My Account
My Settings
Change Password
Membership
My Special Cash
My Voucher

My Setting
Personal Information To receive ecoins upon completion
User Name: nuraileyasyakila
My E-mail Address: nuraileyasyakila@graduate.utm.my
Notification E-mail: nuraileyasyakila@graduate.utm.my Save
Phone No.: +60 196645943
Sex: ☐ Male ☐ Female
Date of Birth: 3 March 1977
Upload Photo
Delivery Address
+ Add new Address
Table with 6 columns: Region, Name, Phone Number, Address, Postal Code, Action. Row 1: west malaysia, Syakila, +60196645943, Selangor Sepang No 14, Jalan Dahlia 3/4, Taman Dahlia, 43900.

Based on the screenshot above, I was testing the system whether if I can change my username and email address. Turned out that I can't change the both of them. This definitely going to cause problem to occur when a customer intended to change their email as their email is no longer can be used or maybe they needed to change their username.

From my point of view, this problem is a **major issue**. It needed to be fix as soon as possible. Especially for the email address, it is important as it is also considered the customer's details that should not be wrong.

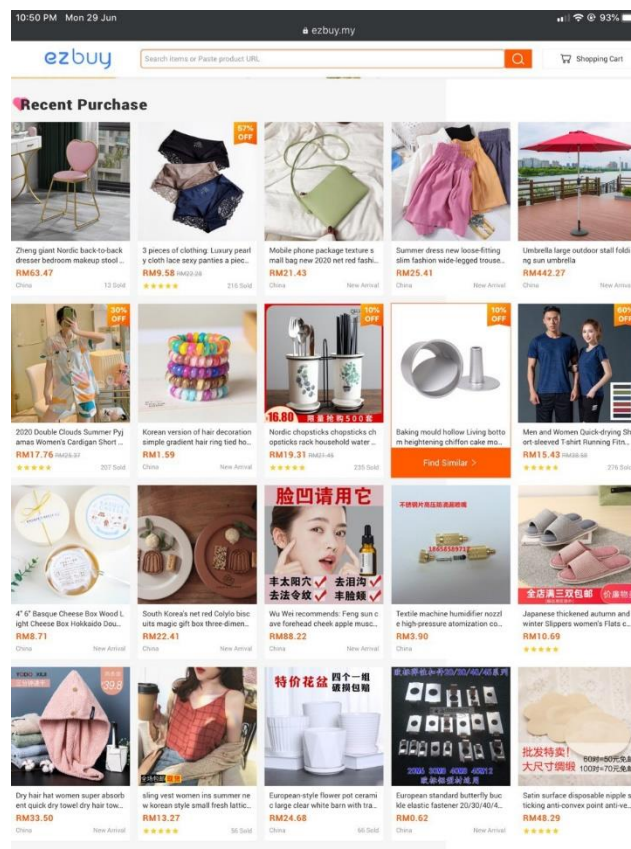
4. Violate heuristic : **Help and documentation** (Nielsen Heuristic Evaluation)



Based on the screenshot above, I was trying to find the chat button so that I can have a chat with the seller. I even tried with two of different seller. I have a lot of question to ask to the seller yet in ezbuy, they didn't let me talk to the user directly in the private message.

From my point of view, this problem is **major issue**. Considering this as major issue because what if a new customer has a lot of unexplained thoughts in their mind even after checking all of the information that the seller has provided, they would definitely preferred chatting with the seller personally to ask them about the product.

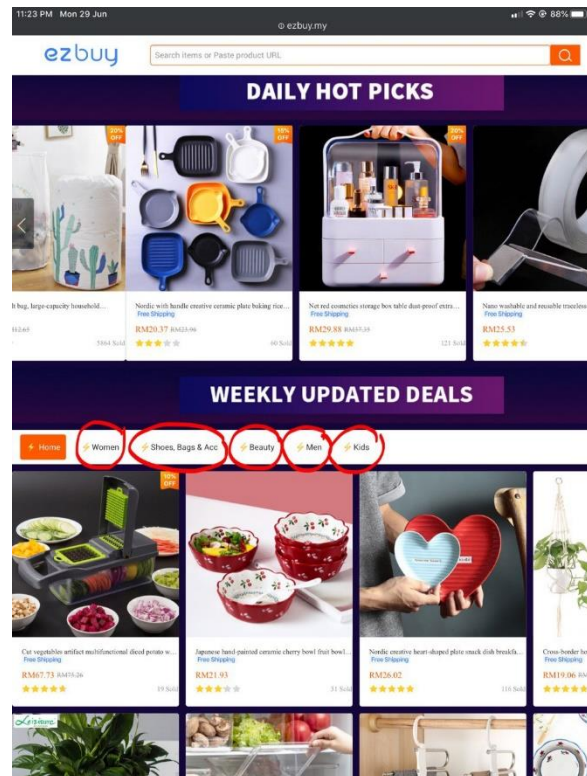
5. Violate heuristic : **Recognition rather than recall** (Nielsen Heuristic Evaluation)



Based on the screenshot above, the website can only show “Recent Purchase” which they display product that is seems more likely the same as the customer’s history purchase. But ezbuy didn’t have the “From the same seller” where it should display more products from the recent seller that the customer has been dealing with.

From my point of view, this is a **cosmetic issue**. It is not that important to be fix, it is just to help user to recognize the seller that they had deal before and bring ease to the customer more so that they can find more new product from the seller that they had put their trust as the customer and the seller have purchase history before this.

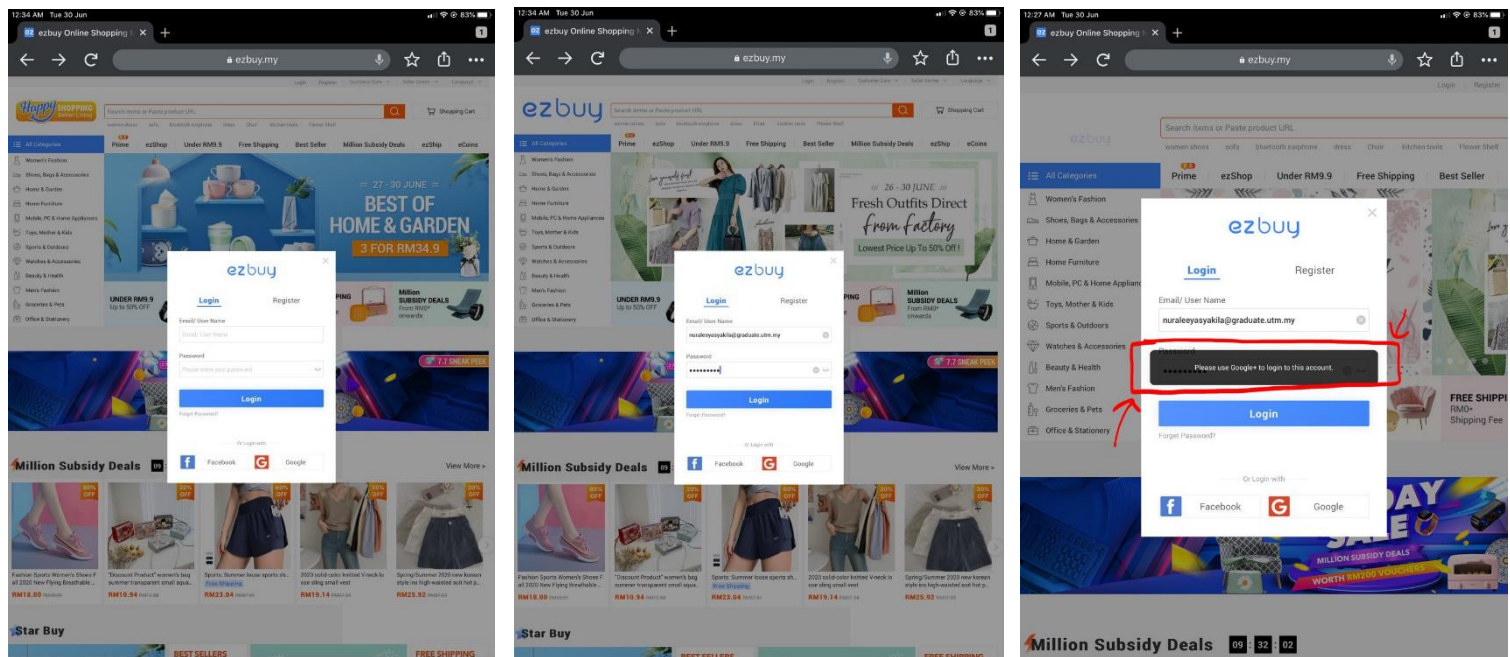
6. Violation heuristic : **Match between system and the real world** (Nielsen Heuristic Evaluation)



Based on the screenshot above, it is shown that the bar was a lightning icon instead of a particular icon for each option. This could make the customer unnoticed the real function of each option.

From my point of view, this problem is a **cosmetic issue**. It is because it doesn't affect with the customer's activity. It's just for a better quality of the website.

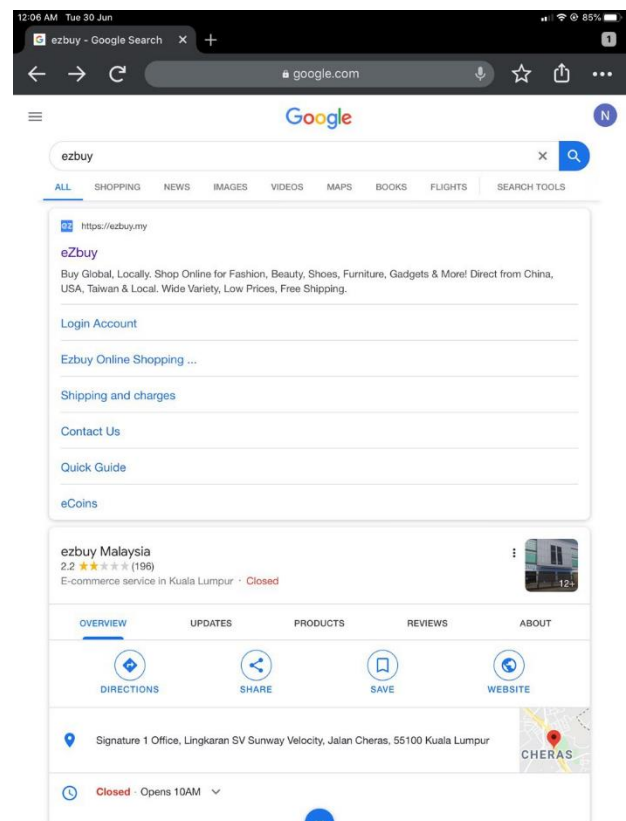
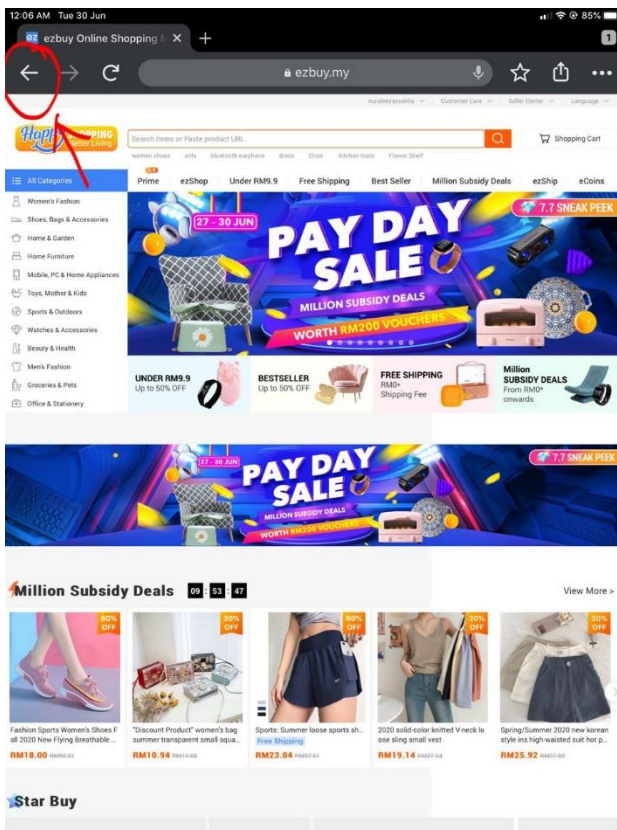
7. Violate heuristic : **Flexibility and efficiency of use** (Nielsen Heuristic Evaluation)



Based on the screenshot above, this shows that it is violating the flexibility and efficiency of use. Imagine if we have a new customer that is barely know about this IT stuffs and got that error message saying that their account needed to use Goggle+ to sign in when they know nothing about that Google+. They will be confused by the action of the website.

From my point of view, this is a **catastrophic issue** as it will preventing the user to sign in directly from the main sign in pop up.

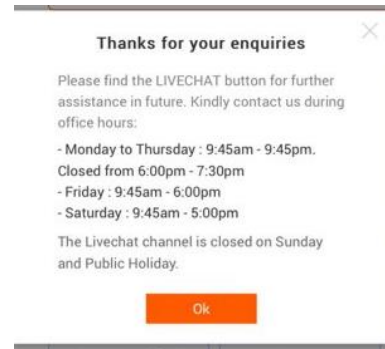
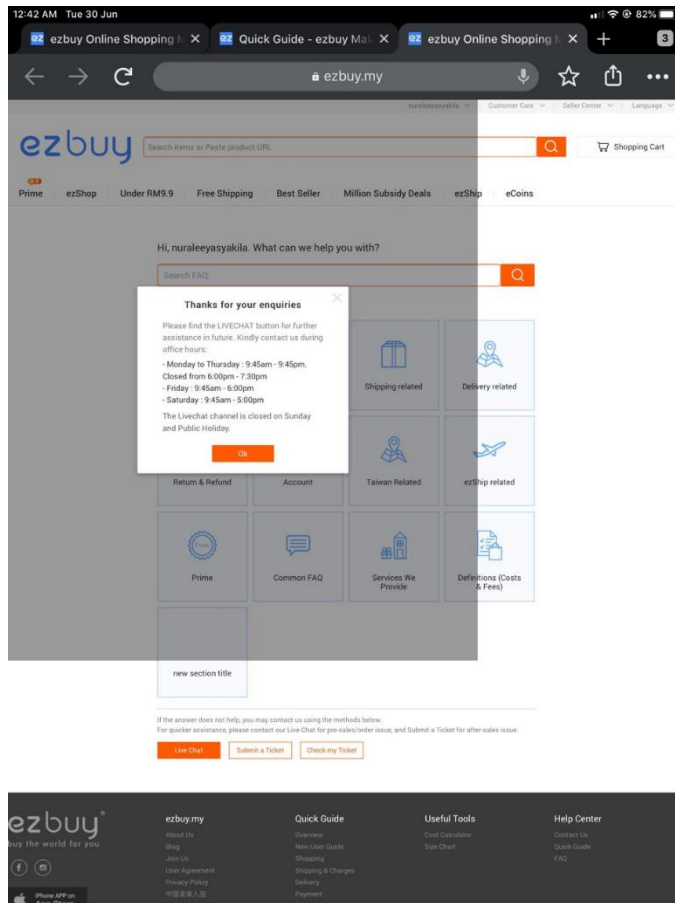
8. Violate heuristic : Offer simple error handling (Shneiderman Eight Golden Rules)



Based on the screenshot above, it shows the situation when user mistakenly pressed the 'back' button and it straight exit the website. This surely will bring problem if the user was actually was reviewing a product but then when they hitted the back button it went straight out without any warning message.

From my point of view, the problem is **major issue**. This is because it is crucial to keep the user from doing mistake by mistakenly pressed any button that will bring them to exit from the website.

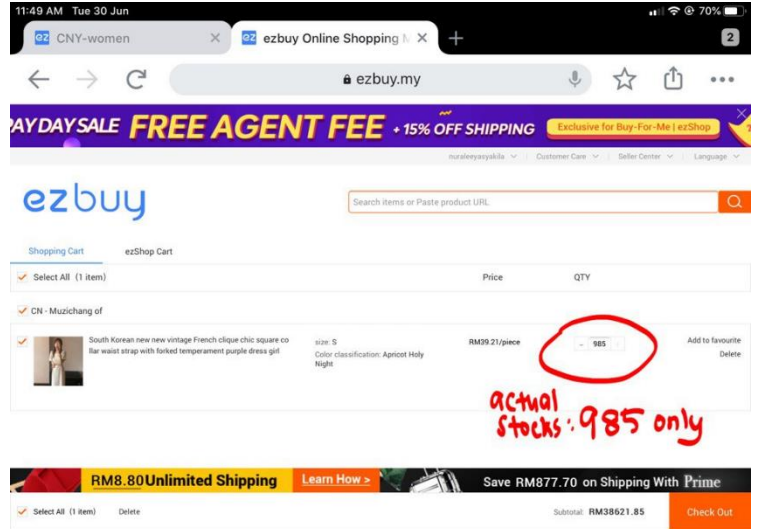
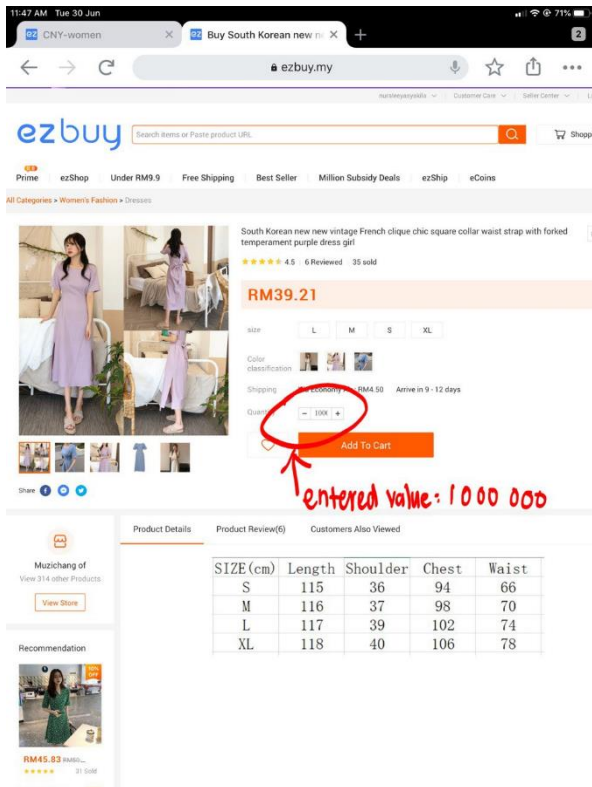
9. Violate heuristic : **Flexibility and efficiency of use** (Nielsen Heuristic Evaluation)



Based on the screenshot above, it shows that ezbuy has inflexible time of operation. This will affect to the user that want to ask important question at the “LIVECHAT” button but then found out that ezbuy has closed due to end of the operation time. They should consider people who prefer to surf through the website even late at night.

From my point of view, this is a **minor issue**. This is to make sure all user are satisfied with the flexibility of the website.

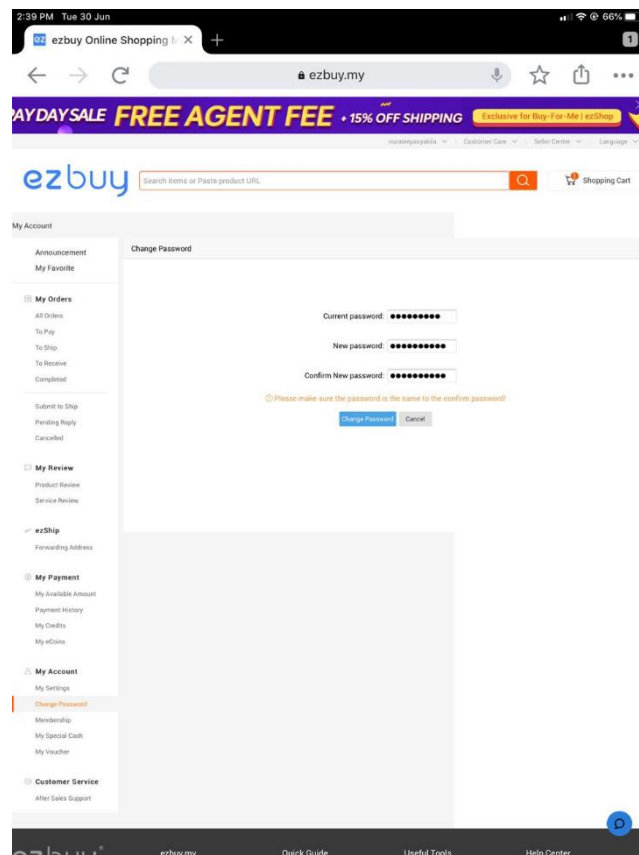
10. Violate heuristic : **Error prevention** (Nielsen Heuristic Evaluation)



Based on the screenshot above, it shows that when I entered a total of product that I wished to buy which is 1000000, it accepted any value. But when I wanted to proceed to the checkout, it said that I only ordered 985 which means that is the only stock available.

From my point of view, this is a **major issue**. Imagine if a customer wants to buy a such big total of product, so they just enter the total product as much as they wished without having any limit stock message from ezbuy. This will more likely causes the customer to get disappointed when knowing that their product has no enough stock.

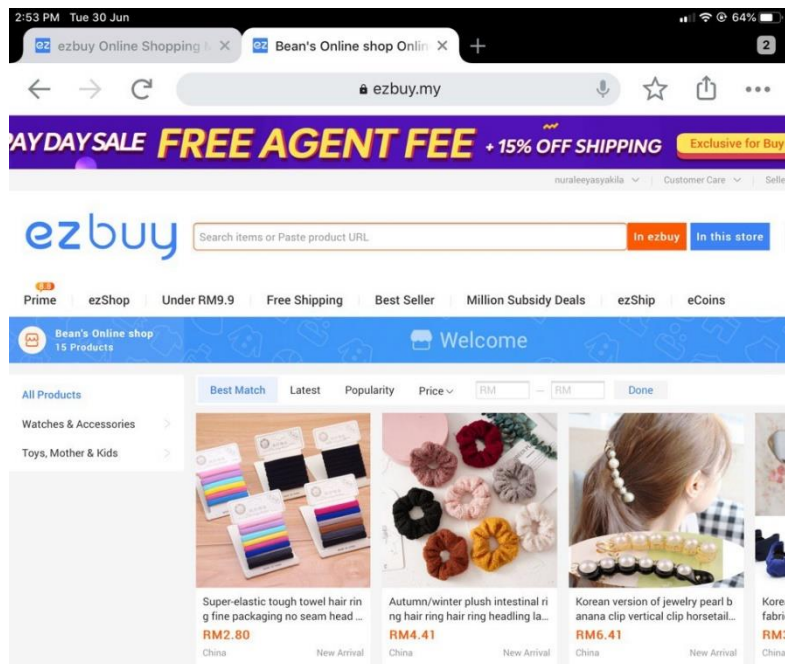
11. Violate heuristic : **User control and freedom** (Nielsen Heuristic Evaluation)



Based on the screenshot above, I am facing problem where I can't check what did I insert as the password. I couldn't find my error in the new password or confirm password as the system won't let me check.

From my point of view, this is **minor issue**. Without it having to be fix, the customer still can complete the task to change password, but it will take times as customer need to retype the password. It is needed to be fix as customer came from various age, it can be kids, middle age or even senior citizen. We should consider customer especially those who are senior citizens, they might got frustrated in trying to find their fault.

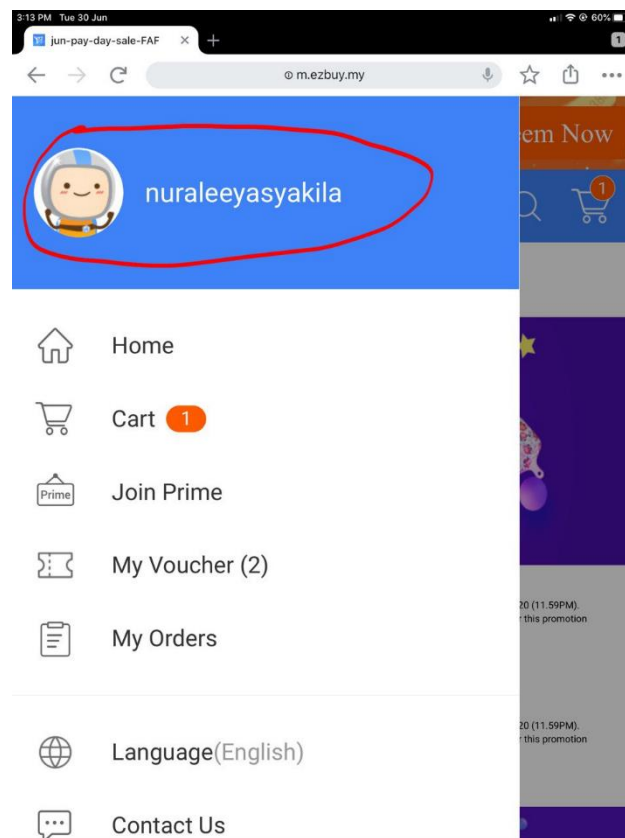
12. Violate heuristic :**Reduce short-term memory load** (Shneiderman Eight Golden Rules)



Based on the screenshot above, this is my favourite shop in ezbuy. I found it hard as everytime I want to purchase with the same seller, I need to search the product that I used to buy from the shop first, Then I get to see the seller's other product. This is all because I can't add the seller as my favourite shop or follow the seller on ezbuy.

From my point of view, this is **minor issue**. Customer may can do by re-search their history and find the seller there.

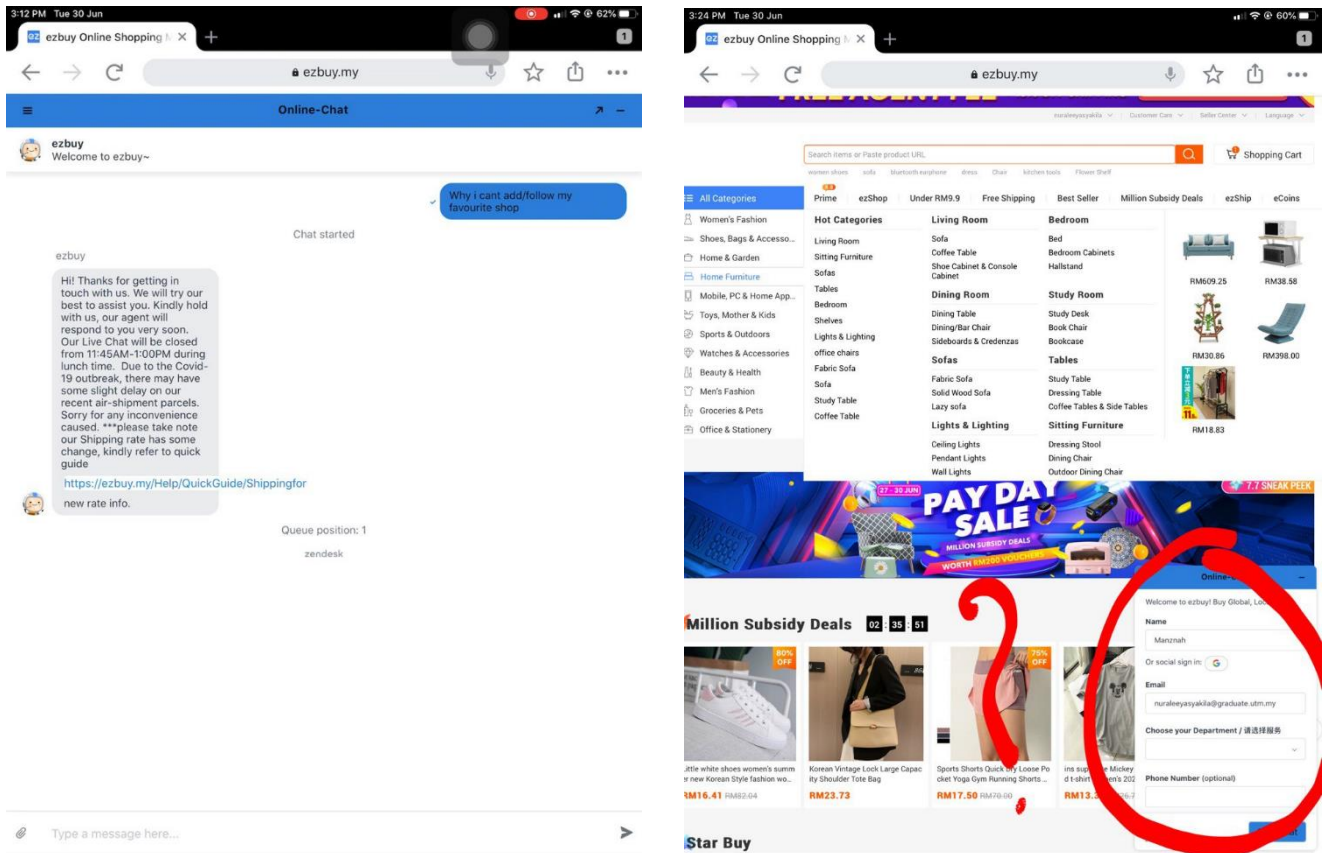
13. Violate heuristic : **Flexibility and efficiency of use** (Nielsen Heuristic Evaluation)



Based on the screenshot above, I was trying to click on my username in hoping that it would direct me to my profile setting. But turned out it can't be click.

From my point of view, this is **cosmetic issue**. By not fixing the problem, it won't affect the customer activity. This is just to make the website seems more functional and efficiency to use.

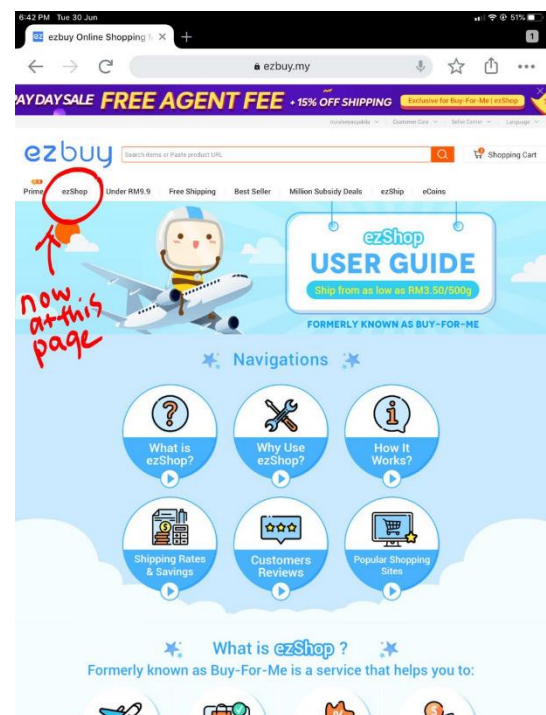
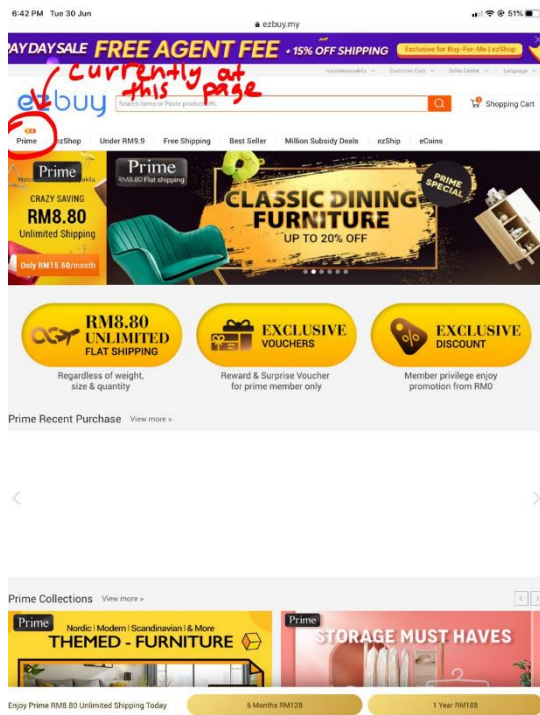
14. Violate heuristic :Reduce short-term memory load (Shneiderman Eight Golden Rules)



Based on the screenshot above, I was trying to chat with the customer service. Firstly I clicked on “chat” and I started the conversation. Then I exit from the chat to look around in ezbuy. When I want to get to the chat back, it lost and I couldn’t find my chat that I have started. It even shows the starting of asking question segment like the first time I tried to start the conversation. It seems like ezbuy didn’t keep the data for the chat.

From my point of view, this is a **major issue**. Imagine if a customer asked questions to the customer service but then their chat data wasn’t keep in the website, how frustrated the customer will be.

15. Violate heuristic : **Visibility of system status** (Nielsen Heuristic Evaluation)



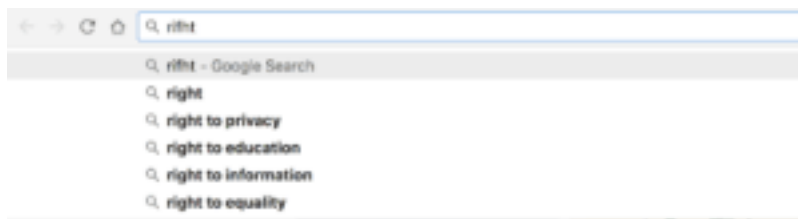
Based on the screenshot above, it shows that when I am at the “prime” page, the website doesn’t show to me that I am actually at the “prim” page. Same goes to when I click on “ezShop”, it didn’t show any sign that I am at that particular page. This will cause confusion to customer when they wanted to know what page that they currently looking at (besides referring at the content of the page).

From my point of view, this is a **cosmetic issue**. It didn’t cause any harm to the customer, but it would be nicer if the website could show to the customer the status of the location of page that is the customer currently located at.

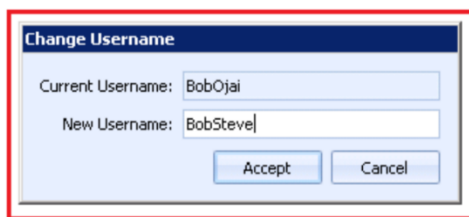
Discussion

Problem 1: The solution to this problem is to lessen the content of the homepage. Display what is important only. Try to minimize the homepage. For the promotion ads, instead of putting it everywhere at the homepage, it should be in a page that puts them together so that customer will find that particular page if they wanted to.

Problem 2 : For the solution, I suggest the system to add the recognition of error in typing or recommend the nearest or the closest to the user's finding instead of displaying "Sorry we can not find any matches. Please try different terms again"



Problem 3 : For the solution, the system should be able to give the customer freedom to change their details whatever they want to. There should not be any limit to the customer's intention in changing their personal details.



Problem 4 : For the solution, ezbuy should definitely give the option for the customer to interact directly to the seller that sell product that they intended to buy.

Problem 5 : For the solution, I think ezbuy should provide a new segment where it display the latest product or more product of a seller that the customer had deal before.

Problem 6 : For the solution, I suggest ezbuy should put icon that shows the meaning of the words. As example, if "Women", put a woman icon beside of the word .

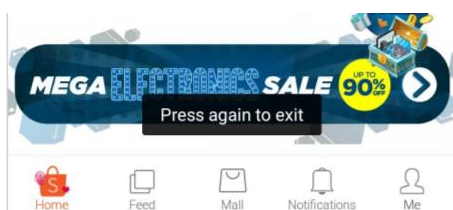


Same goes to "beauty", put a makeup brush or lipstick icon instead.



Problem 7 : For the solution, I suggest ezbuy to standardise all sign in method so that newbie user or non-advance type of user will face no problem during the sign in.

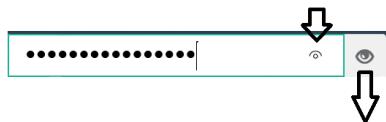
Problem 8 : For the solution, I propose that ezbuy should make it double click the 'back button' if the user want to exit the website, instead of making it only one click.



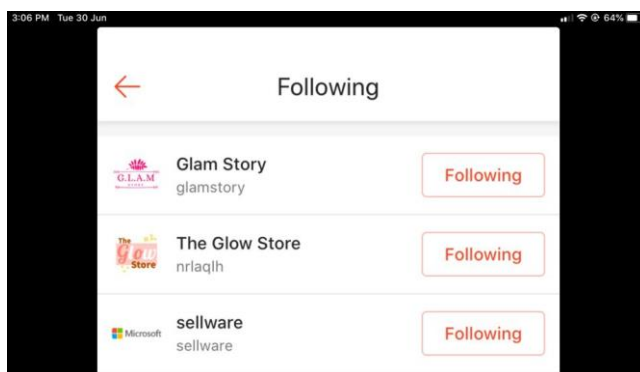
Problem 9 : For the solution, I suggest ezbuy to have more flexible operation hours at least close at 12 midnight.

Problem 10 : For the solution, I suggest ezbuy to show the stock available so that customer know and so that it could prevent errors to occur.

Problem 11 : For the solution, I suggest ezbuy to add the function that make we as a customer can see the password. Customer deserved to see their password so that they will remember it very well.



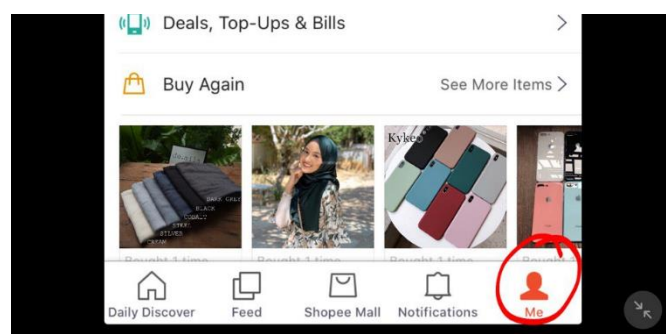
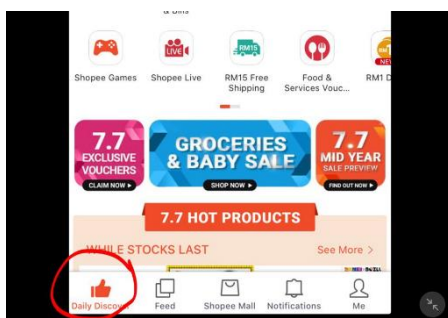
Problem 12 : For the solution, I suggest ezbuy to make a function where customer can follow a particular shop that they love so that they can easily search for their favourite shop in a brief.



Problem 13 : For the solution, I suggest ezbuy to make use of the big username at the upper menu screen become more functional by directing to “my profile setting” when customer clicked on it.

Problem 14 : For the solution, I suggest ezbuy to keep data of conversation between customer and customer service. This is to make sure customer won't forget what have they asked to the customer service.

Problem 15 : For the solution, I suggest ezbuy to make sure if the current display page is known by the user, As example, if it is at “prime” page, show that it is at that page by make it outstanding by making the font darker “prime”.



Conclusion

In a nutshell, there is a lot of problems of the website that I have observed and evaluated equally by using those two heuristic evaluations that I had chosen which are Nielsen Heuristic Evaluation and Shneiderman Eight Golden Rules. Both heuristic are reliable and precise as I can point out the problem by just looking at the criteria the website had or did not have. I am very grateful to get the chance to do this heuristic evaluation case study as I can learn more about the principles of User Interface design in the real life.

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