User-Centered Design

ASSIGNMENT 1
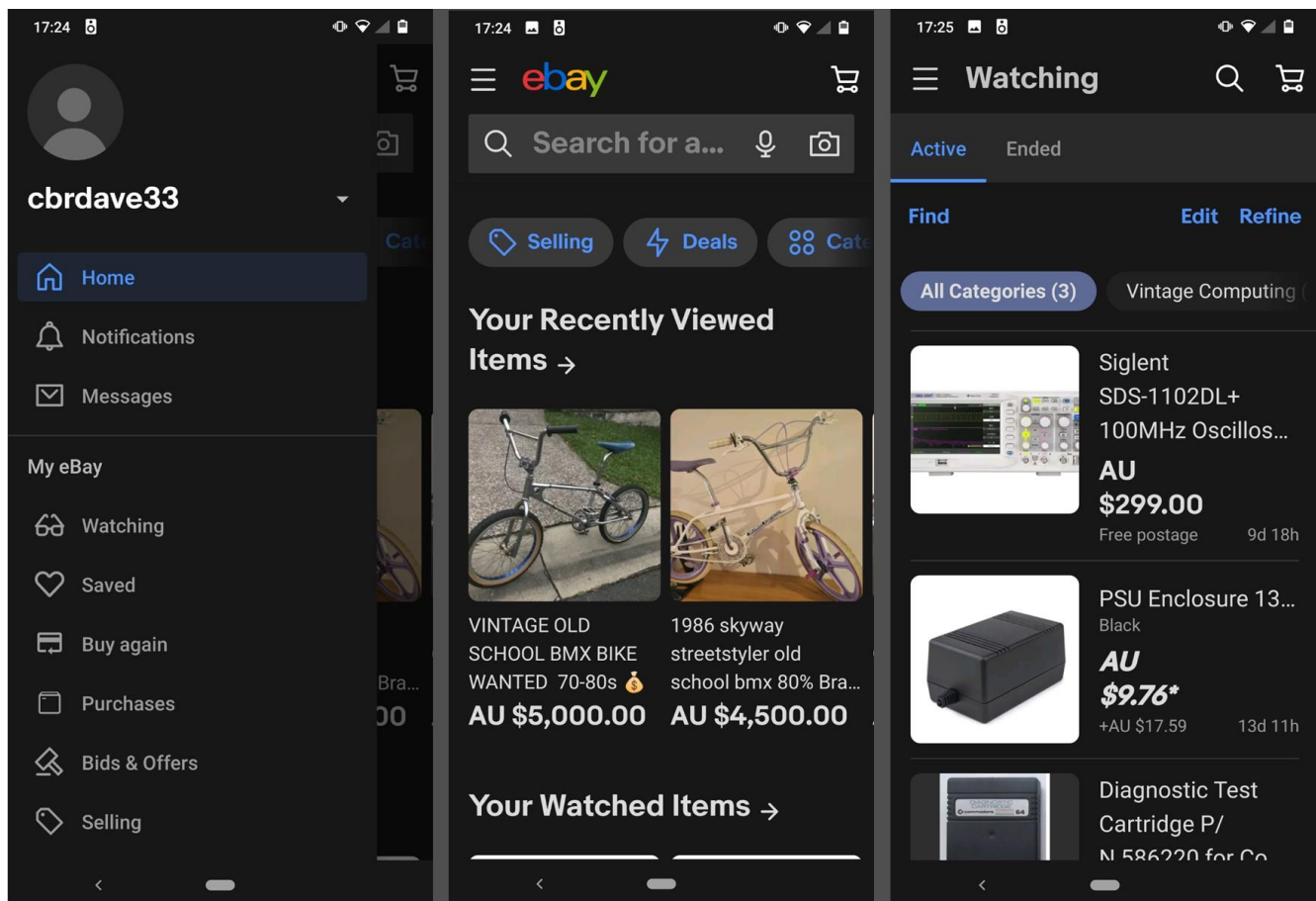
David Pipczak

3805554

Part 1: Analysis of Application

eBay incorporated is a multi-national corporation established in 1995 by Pierre Omidyar, it was originally called AuctionWeb and was renamed to eBay in September 1997. The corporation was listed on the stock market in September 1998 and first expanded globally to Australia, Germany, and the United Kingdom. As of 2020 eBay is now available in one hundred and eighty countries worldwide. eBay First created its mobile application for both iPhone and Android in 2008 and in 2010 eBay brings its application to apple's iPad and was a way to make it easy and more portable for buyers and sellers to watch items that they had been selling and or purchasing, as of 2019, 60% of eBays gross merchandise value (GVM) comes from mobile devices.

This application analysis will be focusing on the android version of eBay's application and will be focusing on the user experience from a buyer's point as a member, this includes signing up, watching, buying (bidding and making an offer) and paying for items on eBay.

1.1 Who are the intended users?

	RANDOM IMPULSE BUYERS	BRAND / QUALITY CONSCIOUS BUYERS	COLLECTORS	REPAIRERS
ATTRIBUTES	18 – 65 years old - Low to high education - Low to High technical skills - Unemployed to full time employment	18 – 40 years old - Low to High education - Low to High technical skills - Unemployed to full time employment - Fashionista – Trend Buyer	18 – 50 years old - Low to High education - Low to High technical skills - Unemployed to full time employment - Collector who accumulates items that might be or will develop in value - Collector of a hobby or interest	20 – 50 years old 18 – 50 years old - Low to High education - Low to High technical skills - full time employment - Repairs items for self as a hobby or possibly works for a shop or other business
TASKS	- Logs in occasionally - Searches items - Watches items - Bids on items - Purchase items randomly - Tracks items - Leaves feedback	- Logs in on a regular basis - Searched for known brand items - Watches items - Bids on items - Purchase items randomly - Tracks items - Leaves Feedback	- Logs in on a regular basis - Searched for specific items - Purchases items based around there collections or interests - Watches items - Bids on items - Purchase items randomly - Tracks items - Leaves Feedback	- Logs in on a regular basis - Searched for specific items - Purchases items based around what they are repairing - Looking for cost effective prices - Watches items - Bids on items - Purchase items randomly - Tracks items - Leaves feedback

1.2 What were the main tasks that the users are expected to accomplish?

➢ **Signing up** – The app will allow you to shop as a guest or as a member. If you wish to become an eBay member then the app requires you to register your details first name, last name, and email, it also requires you to enter a password that you wish to use, if you sign up and become a member you to have better control over your usage, it will allow you to watch items easier as well as keep track previous and current purchases, spending and items that may be of interest, and allow you to email the sellers. These options are and can be a help to the user who wishes to buy items as they have records, it also hinders the guest buyer who can not email a seller due to this option being for registered users.

➢ **Searching –** eBay's app allows searching, the searching function can be filtered, the filtering options that a user have at their control is **Keywords or item number** (All words: any order, any words: any order, Exact words: exact order, and Exact words: any order), **Category** (over 34 types), **Title and description, Completed lists, Sold listings** (looking for past purchases), **Price range** (from AU$, to AU$), **Buying formats** (Auction, Buy it now, Classified ads), **Condition** (New, Used and Classified ads), **Listings** (Starting within a time , Ending within a time, and Ending more than time), **Number of Bids, Multiple item listings** (from, to), **Items listed as lots, Sale items, Best Offer, Postage options** (Free postage, Local pickup), **Located** (Located distance from postcode), **From preferred locations** (Australia or Worldwide), **Sellers** (Specific sellers to include or exclude, saved sellers, sellers with eBay stores), **Sort by** (Best match, Time ending: Soonest, Time: newly listed, Price + Postage: lowest first, Price + Postage: Highest first, Price: lowest first, Price: Highest first, Distance: nearest first, Condition: newest first and Condition: used first), **view results**(All items, Picture Gallery, Show item number), and **Results per page** (25, 50, 100, 200). These filters options can be an advantage and a hinderance as it takes time to select these filters, and some of these filter categories extend to even more filter categories. The one positive is that they are easy clickable on the android application.

➢ **Watch items** – Watching items was designed around unsureness, it was a feature that was added so that you could watch it until you are ready to commit purchasing the item, if you changed your mind you can un-watch the item as well. This feature has also been taken advantage of as it allows other sellers to keep watch on similar items that they might be selling to keep competitive. The watch list will also give you notifications if a listing is close to ending.

➢ **Bid on item** – Bidding on an item will allow the user to bid against other buyers to try win the item that they are interested in. This is an Auction style system. As a user you can bid on an item by using the **Automatic bidding** option, when doing this you set the highest price that you are willing to spend and or pay for an item, eBay will take care of the bidding for you and it increments the size of the bid dependent on the price at the time. These bid increments are as follows :

CURRENT PRICE	BID INCREMENT
$0.01 ~ $0.99	$0.05
$1.00 ~ $4.99	$0.25
$5.00 ~ $24.99	$0.50
$25.00 ~ $99.99	$1.00
$100.00 ~ $249.99	$2.50
$250.00 ~ $499.99	$5.00
$500.00 ~ $999.99	$10.00
$1000.00 ~ $2499.99	$25.00
$2500.00 ~ $4999.99	$50.00
$5000.00 and up	$100.00

➢ **Make an Offer** – Making an offer on an item will let the seller know how much user is willing to spend. This can save the user money; it can also take time as there is no time limit for the seller to respond. When the user makes an offer, they are agreeing to buy the item. The user can retract the offer if it has not been excepted giving them a chance to review and retract it, that is unless they have made three bids on a specific item to where they are locked into the purchase. The seller will reply with one of three options: **Accept your offer, reject your offer** or they can **counter your offer**. This process can be good for a seller but be a hinderance for the user who is trying to purchase items. In my opinion it would have been better if there was a time limit to respond as

well as not being locked in if you have made three bids. If you have a seller who takes his time responding, then the user might be impatient and might change their mind. This should have been an option to give more user flexibility and freedom and allowing for quicker purchases and help delays in communication.

➤ **Pay for Items** – the user has multiple options for payment and must make payment within 4 days, they can choose to pay by: PayPal, Credit Card, Afterpay, Google Pay, Apple Pay, and even pay with an eBay voucher or gift card. The purchases are helped by having so many options for the user to use although this can also be a hindrance as some users might not wish to use their credit card and do not have these other options that will require the user to have to sign up for other company accounts.

1.3 Analyse the application based on the user interface guidelines such as Krug's or Nielsen's usability guidelines.

In this analysis of the eBay android application, we will be tested against Nielsen's usability guidelines. With eBay being one of the top ecommerce companies in the world and with over thirteen thousand employees we should not be able to fin to much wrong.

1. **Visibility of system status**
   Analysing Nielson's first usability guideline against the eBay app and by testing this firsthand with my experience shows that eBay's app does keep you informed quiet well. The app keeps you informed through text information and labels at the top of each screen, it also includes a scrolling circle indicator, and other symbols that are accompanied by text to ensure you can read or visually see what is going on.

2. **Match between system and the real world**
   Analysing Nielson's second usability guideline shows that the app uses good straight forward English statements and outside of the word **bid** does not use any other abbreviations. So, it parses this second guideline.

3. User control and freedom

Analysing Nielson's third usability guideline shows that it does give some control to user control and freedom, with the eBay app if you hit buy it now by mistake the app will then show a second message 'commit to buy' at this point you are able to select the back arrow and exit the accidental purchase. If you add an item to the cart by accident you can then view the shopping cart and have the option to remove the item. So, for these reasons it does pass Nielsen's third guideline.

4. Consistency and Standards

Analysing Nielson's forth usability guideline shows that overall, the app is mostly consistent and does keep the standards, the thing that I have noticed is that depending on what your doing, like looking at your Watched items (**Figure1**), this will be display with only one item wide and each addition item will be displayed one below the other, this changes when you are for example your Buy it again (**Figure 2**) items list which changes to two items wide, this isn't a hindrance and could be an advantage to help quickly look through items.
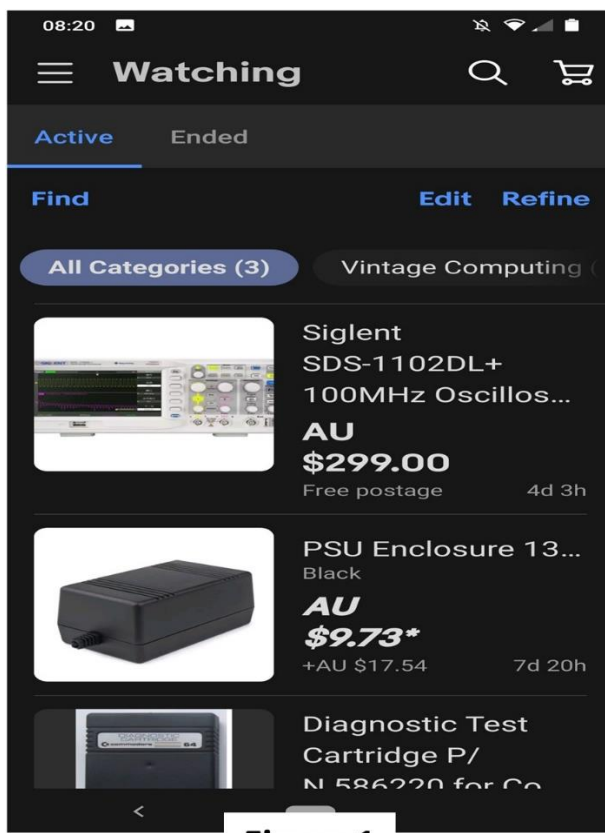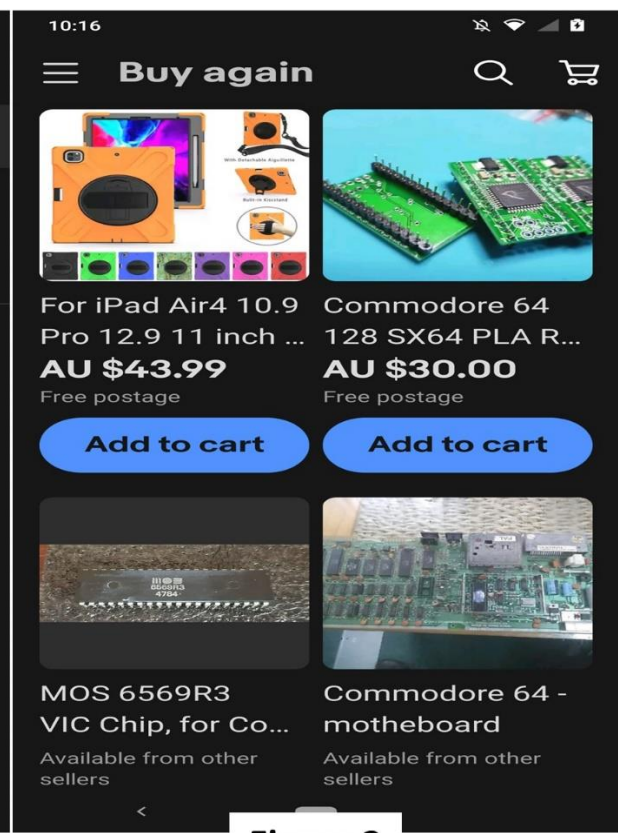

Figure 1

Figure 2

5. Error Prevention

Analysing Nielson's fifth usability guideline shows that the app does have error protection, the app does this by either displaying a second question to commit to a purchase, adds items to a shopping cart that you can review and remove, and it also remembers your shopping cart items even if you have closed the app, so the eBay app passes the fifth usability guideline and is an advantage to the user.

6. Recognition Rather than Recall

Analysing Nielson's sixth usability guideline shows that eBay's app passes, eBay's app does make it easy to navigate through each area of the app without though, and without having to remember how to use it, all information is easily retrievable for the user and is an advantage.

7. Flexibility and Efficiency of Use

Analysing Nielson's seventh usability guideline shows that for an advanced user it is quiet flexible and efficient, although there are some hidden features behind the icon ≡ which for a new user or someone who is not tech savvy might overlook. This option of having features hidden can be an advantage as it will help give more useable space for other content and make it more flexible and efficient for an experienced user, it can also be a disadvantage for a new user who might struggle to find it or recognize it as a button that has options hidden behind it. So, in this instance the app does and does not pass Nielson's seventh usability guideline.

8. Aesthetic and Minimalist design

Analysing Nielson's eight usability guideline shows that eBays app does and does not provide good aesthetics, this would depend on someone's opinion, eBays app does show things like your recent views, categories that you have previously looked at and has advertising, I would not class the advertisements as minimalist although it is understandable as it helps eBay to make money. I find the advertisements and seeing past categories both a hinderance and an advantage, sometimes you do not want to look through this information, and other times am advertisement might catch the user's eye and lead to a sale.

9. **Help Users Recognize, Diagnose, and Recover from Errors**

   Analysing Nielson's ninth usability guideline shows that the eBay app does help users recognize they have made an error, this is done by asking the user to commit to a buy or to have to review the shopping cart before full purchase, this and also the shopping cart remembering what has been selected even after the app has been closed or a possible crash helps the user to visually see what they have done and are able to read their purchases helping the user to be able to recover from errors. This is a great advantage for all user types as even a professional still can make mistakes from time to time.

10. **Help and Documentation**

    Analysing Nielson's tenth usability guideline shows that eBay has an extensive help section, the only issue with this is that it is hidden behind the ≡ icon and as stated in Neilson's seventh usability guideline (flexibility and Efficiency of use) of this analysis this might not be a good location for a novice or new user who does not see or is aware of this area. This help and documentation are extensive and there are many areas for the user to read through, just some examples are: Creating a listing, bulk listings, ending listings, and there is many more, there is also an option to chat with someone from eBay to help. The help section can be an advantage for more experienced buyers and could be a disadvantage to a user who might not understand. This is however where the speak with someone from eBay is a great addition and can be a way to ask questions and get a better understanding.

Part 2: Survey and Report

The survey and report process looks at an eBay buyers' point of view and experience when using the eBay mobile app. The users had been asked prior to sending the survey link and the link was then forwarded through Facebook and by text to those users who did not have a social media account. The survey can be found at the following link:
eBay Phone App - Buyers User Survey

This survey was aimed at the user as well as eBay, the first part of the survey was to determine the users age, skill level, type of buyer, how often they use the app and if they had been a casual or registered eBay user. The second part of the survey was aimed at getting user feedback with its basic tasks such as signup, searching, filtering, watching items, bidding, making offers and paying for items, and at how the user felt when comparing their thoughts against Nielson's usability guidelines.

2.1 Correctly identifying users

To correctly identify the users, and in this case android users, the survey started with an opening question:

Is your phone and Android device?

- o Yes
- o No – You do not need to complete this survey thank you for your time.

This question was the opening question and used to attempt to eliminate any users that may have used other devices such as iphone's, blackberries etc.

2.2 Survey participants.

From our survey of six participants, we were able to determine that 50% of the participants had been aged between the years of 40 – 49, 16.7% had been between the ages of 50 and 59 and 33.3% had been of age 60 and over. Of these participants 66.7% had rated themselves as having medium skills, and 33.3% rated themselves as highly skilled. The survey results also showed 3 out of 4 Categories of buyer had been selected as the chart below shows:
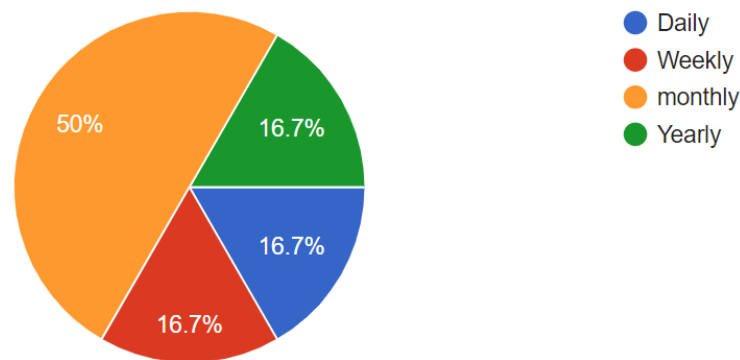
What type of buyer are you?

6 responses

- ● Random Impulse buyer
- ● Brand / Quality Conscious Buyer
- ● Collector
- ● Repairer
- ● Other
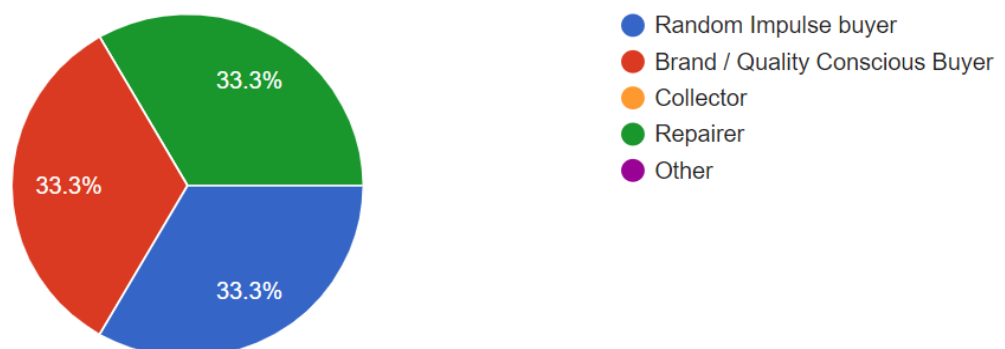
The Survey showed that all six users had been registered as eBay users, and the user's varied from a daily, weekly, monthly, and yearly user as the chart below shows:

a. How often do you use the eBay app?

6 responses

2.3 Survey Questions

The Survey questions had been based on 4 different sections, the first section and as mentioned earlier was an opening question to ensure that only android phone users had taken the survey.

The second section in the survey was based on the user, this was to determine what age group, their education level, technical skills, type of buyer and if they had been an eBay registered user.

The third section of the survey was based on eBay and how each user felt about the ease of use around the signing in, searching, filtering, watching, bidding, making offers and paying for items on eBay.

The fourth section of the survey was based on how the users felt about different aspects that had been based on Nielsen's usability guidelines, these user usability questions are as follows:

Would you say that the eBay app keeps you well informed about what is going on?
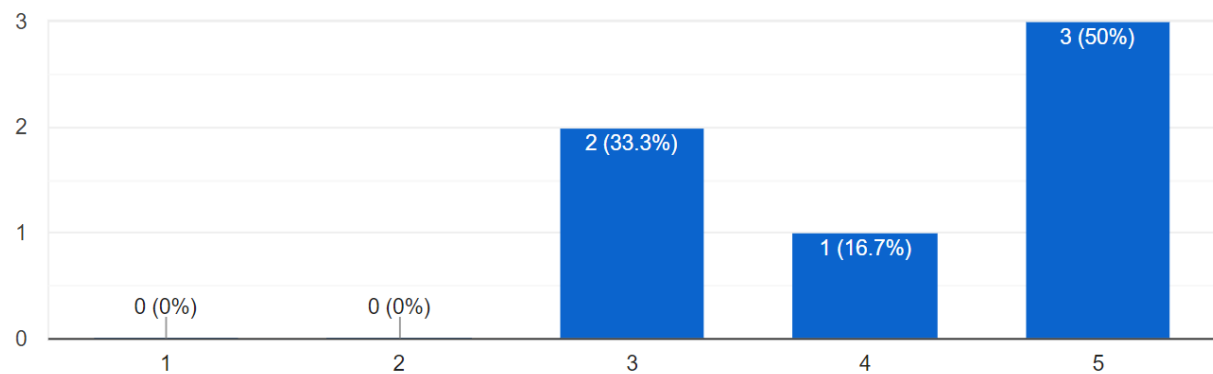
6 responses
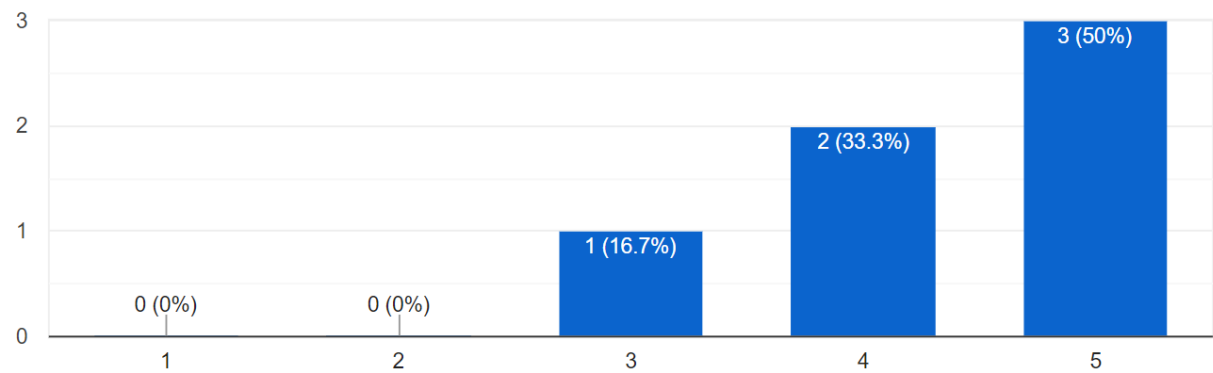
Would you say that the eBay app follows real world conventions, making information easy to follow and understand?
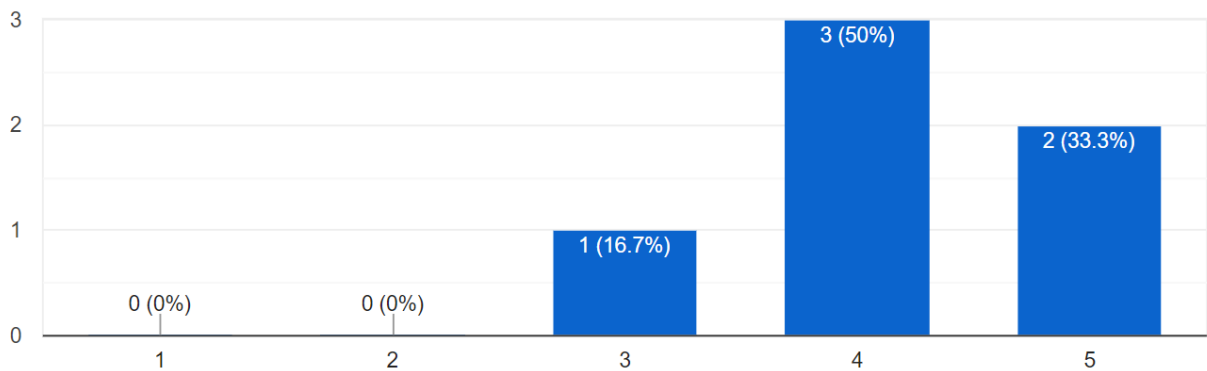
6 responses
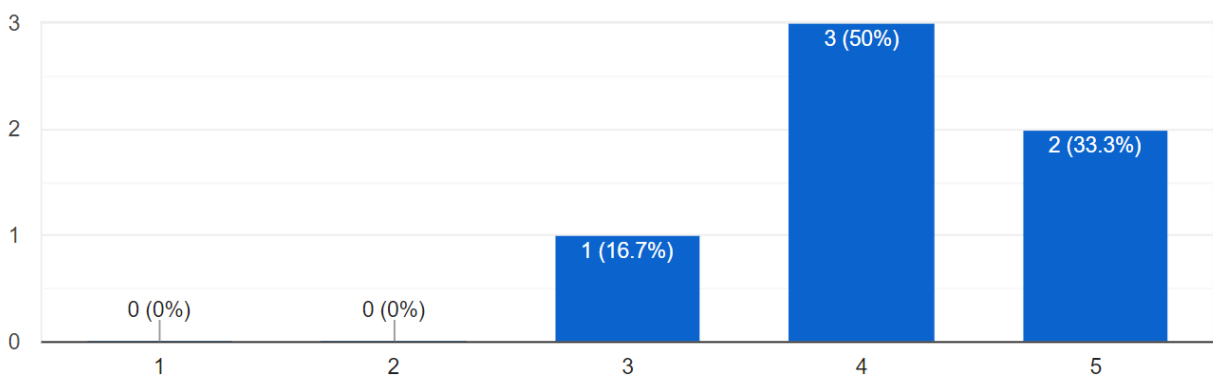
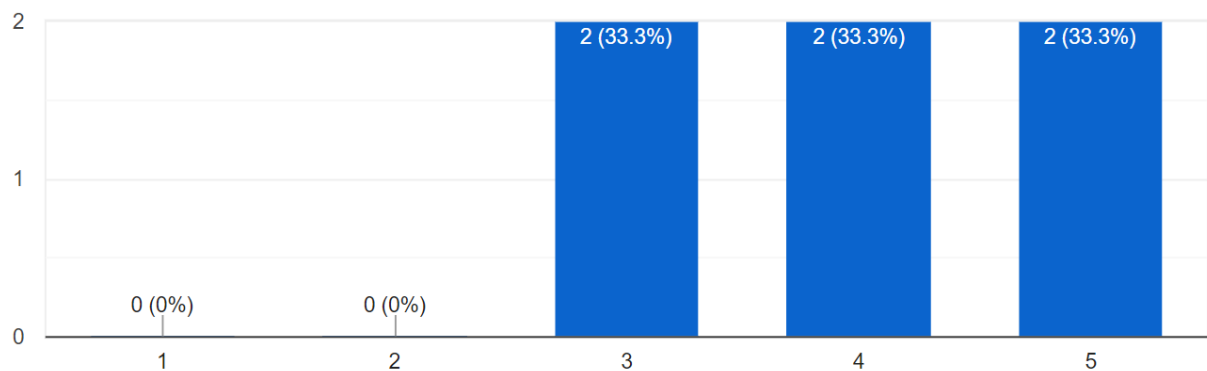Would you say that the eBay app gives you Control and Freedom?

6 responses

Would you say that the eBay app is Consistent in its use?
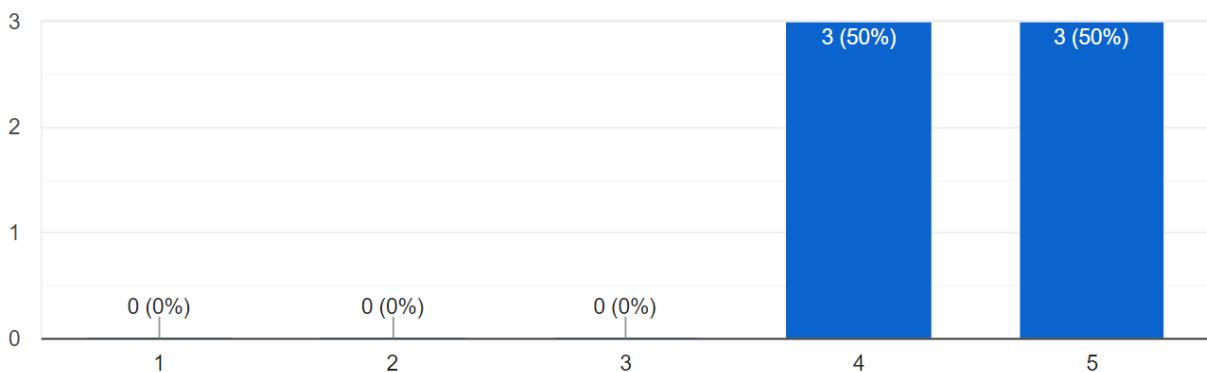
6 responses

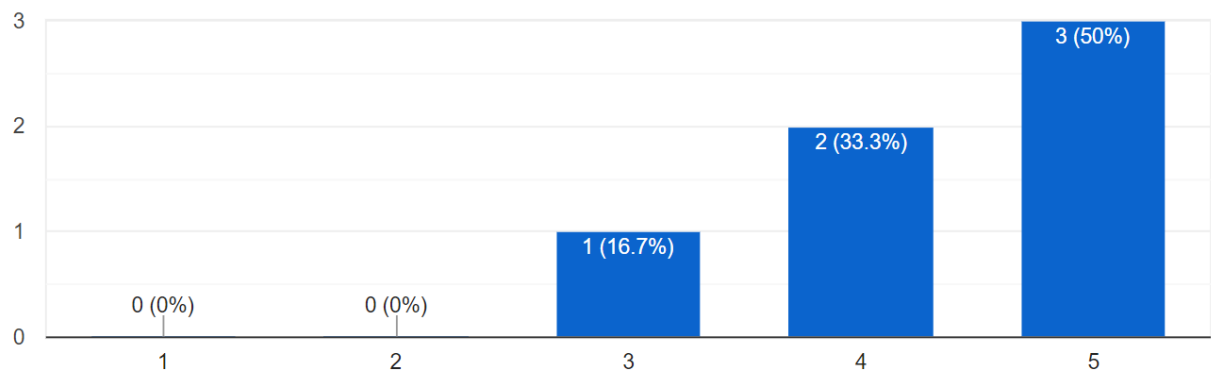Would you say that the eBay app provides good error messages if making one?

6 responses

Would you say that the eBay app is easy to use and does not require relearning each time it is used?
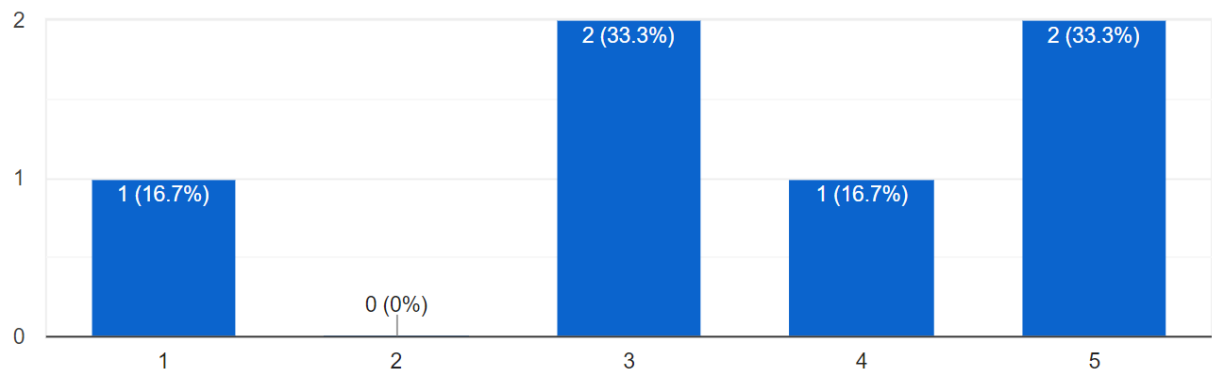
6 responses

Would you say that the eBay app is flexible and efficient to use?
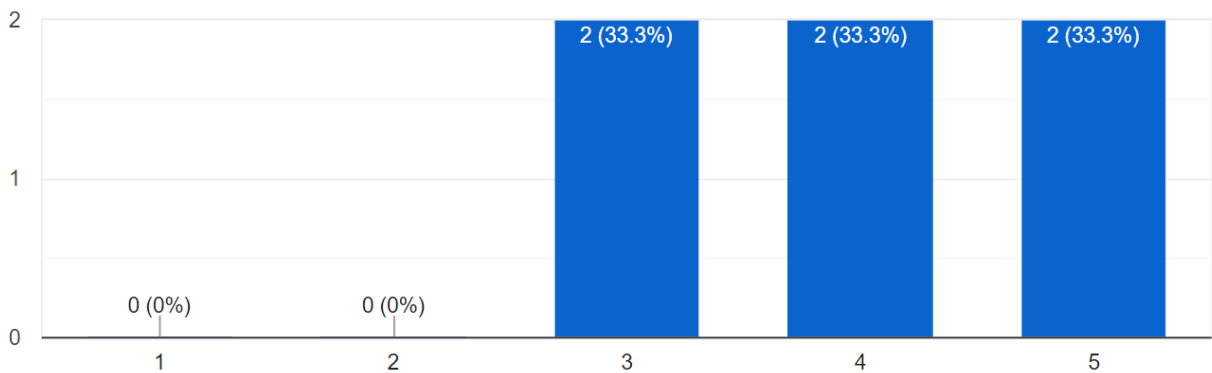
6 responses

Would you say that the eBay app only shows you the information that you need?
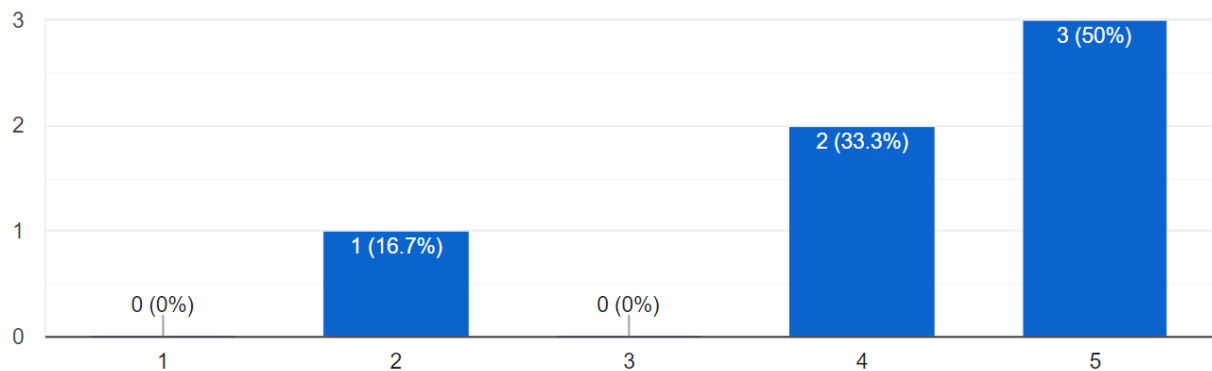
6 responses

Would you say that the eBay app helps you recognize and recover from errors?

6 responses

Would you say that the eBay app has good help and documentation section?

6 responses

Survey Conclusion

The Survey showed that the eBay's users have identified that there could be improvement in most areas, the users depending on their skill levels showed that they felt that there was strengths and weaknesses in eBays android app. These results could be used to improve these areas and could help in making the app more efficient and help with the ease of use for less frequent users.

References

Buying | eBay, 2020 *Ebay.com.au*
https://www.ebay.com.au/help/buying

10 Usability Heuristics for User Interface Design, 2020. *Nielsen Norman Group* [online],
https://www.nngroup.com/articles/ten-usability-heuristics/