AIM : Pick a website/app that you use on a daily basis. Evaluate the product based on user experience principles. Explain usability testing process for the same.

THEORY

As per problem statement , We are going to select three types of websites, e-business website (Flipkart or Amezon), educational website(www.mu.ac.in etc) e-governance website(www.incometaxindia.gov.in etc.) This experiment focuses on usability evaluation of e-commerce or e- business website.

URL : www.flipkart.com

OBJECTIVE: To do usability testing of above mentioned website.

Usability: Usability is a pragmatic component of user experience including effectiveness, efficiency productivity, ease of use learn-ability, retain-ability and pragmatic aspects of user satisfaction.

Usability metrics : A usability metric describe the kind of value to be obtained for a ux measure .It states what is being measured e.g. one metric for software complexity measure is counting the lines of code.

User experience: It is the totality of effects or effect felt by user as a result of interaction with and usage context of a system device or product including usefulness emotional impact during interaction and savoring the memory after interaction Following image is homepage of flipkart e-business website.
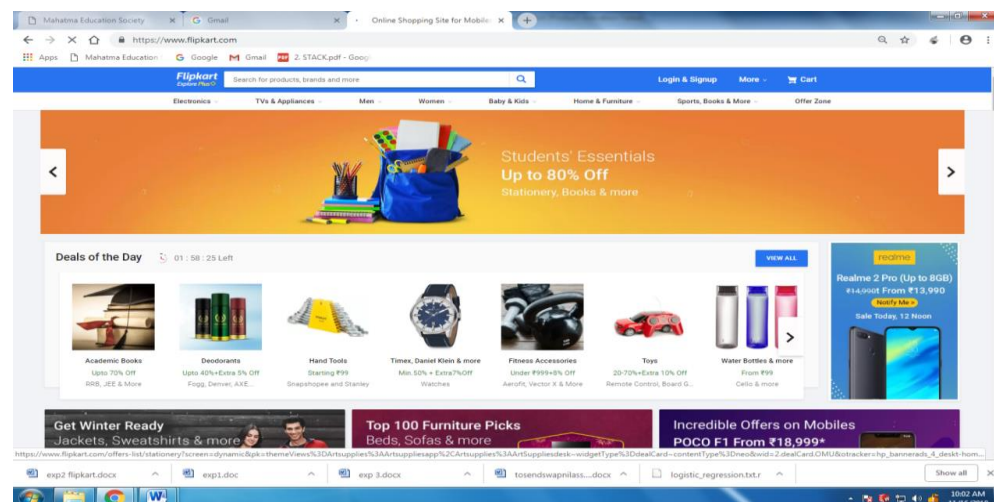

Fig. 1 : Homepage of Flipkart

USABILITY EVALUATIION

For usability evaluation we selected four parameters learnability, memorability, efficiency, universality.

Learnability:

It is a quality of products and interfaces that allows users to quickly become familiar with them and able to make good use of all their features and capabilities. Learnability is one component of usability and is often heard in the context of user interfaceor user experience (UX) design, as well as usability and user acceptance testing.

- A very learnable interface or product is sometimes said to be intuitive because the user can immediately grasp how to interact with the system. First-time learnability refers to the degree of ease with which a user can learn a newly-encountered system without referring to documentation, such as manuals, user guides or FAQ (frequently-asked questions) lists. One element of first-time learnability is discoverability, which is the degree of ease with which the user can find all the elements and features of a new system when they first encounter it. Learnability over time, on the other hand, is the capacity of a user to gain expertise in working with a given system through repeated interaction.
- The site is modeling a similar manner to a traditional supermarket.
- The customer is presented with many suggestions about other products that interest the customer
- It helps you to see the item, see information related for eg:while purchasing the books you have the options like "look inside" which makes it more easier to learn about the details of the product.

Memorability:

- The concept of memorability within the usability context is that user can leave a program and when he returns to it he remembers how to do things in it How many times we all have gone for training exercise with someone who knew the system only come back to it and confused ,This is the issue memorability tries to address
- The search option has many subcategories instead of consolidation it into one .For eg for purchasing clothes user goes to clothes section and then it divides into clarification as Men, women children ,which makes it easy to be kept in the memory and purchasing takes less time

Efficiency:

- Efficiency is the ability to avoid wasting materials ,energy ,effort, money, time in doing something or in producing the right result. In a more general sense its the ability to do things well, successfully without waste .Efficiency refers to very different input and output in different field and industries

- It includes product details, related product search ,product with different offers, free delivery charges, good quality, delivery within few days, easy and quick access to products, all of these factors bring up the site to be user friendly and exhibit great deal of efficiency.

Universality:

The precise meaning of Universality is contentious built the most common interpretation is that categorical imperative asks whether the maxim of your action could become one that everyone could act upon in similar circumstances action could become more morally accepted if it can be universalized   In India various languages are spoken ,apart from English and Hindi which are widely spoken and used for interface, we find different languages based on the states .To make the site more universal language options such as Marathi, Gujarati, Tamil ,and other variety should be included which attracts more customers to the site and makes it more universal Website content is available in local languages (other than English).

User Selection and survey questions for each parameter:

We have selected 5 users and provided them questionnaire for the parameter of learnability, memorability, efficiency, universality and taken their opinion about the site. It is considered like if they said yes it counts 1 if they said no it counts 0.Details of information collected from survey available in following tables 1,2,3,4 for different parameters of usability.

Table 1 gives information about user opinion for **Learnability**.

Table 2 gives information about user opinion for **Memorability**.

Table 3 gives information about user opinion for **Efficiency**.

Table 4 gives information about user opinion for **Universality**.

Table 1 : Learnability

Users and Questions	It is easy to learn to use it.	It is not difficult to use it quickly	It provides flexible user options (i.e, information is available in audio/video format	The information provided by system is not difficult to understand and interpretation
User1	Yes	Yes	Yes	Yes
User2	Yes	No	Yes	Yes
User3	Yes	Yes	Yes	Yes
User4	Yes	Yes	Yes	Yes
User5	Yes	Yes	Yes	Yes
Addition		19		
Average		19/20		
Percentage: 95%				

Table 2: Memorability

Users and Questions	The tool is easy to remember and I can confidently use it every time	The tool is not confusing to use after a long time
User1	Yes	Yes
User2	Yes	Yes
User3	Yes	Yes
User4	Yes	Yes
User5	Yes	Yes
Addition		10
Average		10/10
Percentage 100%		

Table 3 : Efficiency

Users and Questions	The information and contents are useful and well organized	The website is not unnecessarily complex	It helps to perform task easily and web pages navigate efficiently	The website does not has too much inconsistency
User 1	Yes	Yes	Yes	Yes
User 2	Yes	Yes	Yes	Yes
User 3	Yes	Yes	Yes	Yes
User 4	Yes	No	Yes	Yes
User 5	Yes	Yes	No	Yes
Addition	**18**			
Average	**18/20**			
Percentage	**90%**			

Table 3 : Universality

Users and Questions	Website content is not available in local languages (other than English	It is not easy to understand information of website of other languages (i.e , Hindi ,Marathi)
User1	Yes	Yes
User2	Yes	Yes
User3	Yes	No
User4	Yes	No
User5	Yes	Yes
Addition	8	
Average	8/10	
Percentage: 80%		

The Usability of the user interface of Flipkart is: (95+100+90+80) / 4

Overall usability of user interface for Flipkart =91.25%

CONCLUSION : We studied Usability evaluation and user experience.