# ITIS 6400, ITIS 8400 Human-Centered Design Spring 2023

Design Critique Report

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#### **OVERVIEW:**

The website I have chosen is Sam's Club website. The website offers its members a wide range of products and services, including groceries, electronics, furniture, appliances, and automotive products. Users can perform multiple tasks on the website such as purchasing products, managing their orders, and management, travel and entertainment, health services, protection and installation, and other various digital services(scan and go).

Home Page of the website:

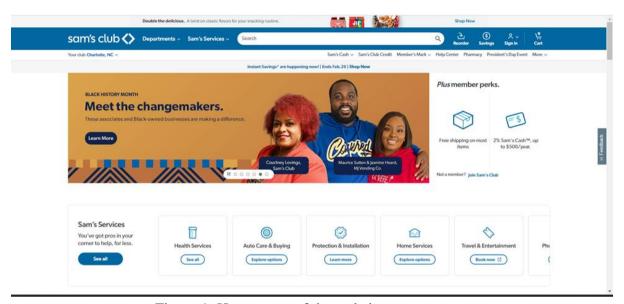


Figure 1: Home page of the website

## LIST OF SERVICES:

Services – The "Services" tab displays the list of various services provided by the website.

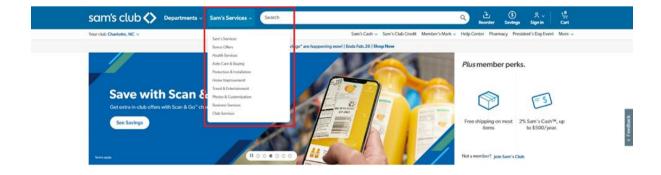


Figure 2: List of services under the "Services" tab

Departments – In this tab users can find the list of all the categories available on the website.

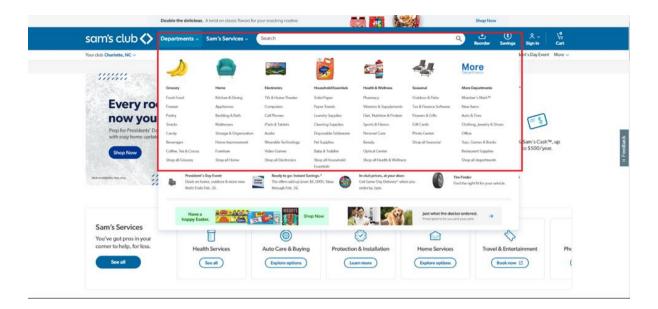


Figure 3: The list of categories under the "Department" tab

From the above image, users can choose one of the categories to explore more about that category. For instance, if a user chooses "Grocery" the website redirects the user to the groceries page which displays all the sub-categories of groceries.

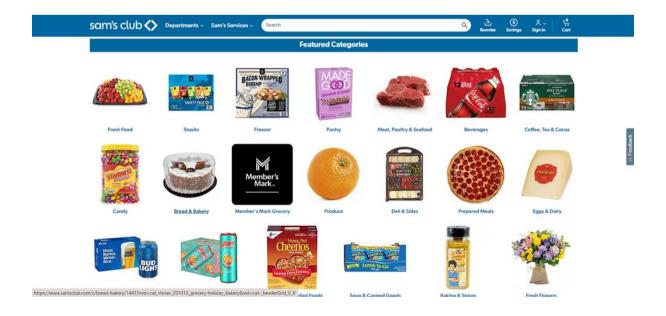


Figure 4: Subcategories under the "Grocery" department

Sign-in – Existing members can sign in to their account using the sign-in button. If the user is not a member they can join the membership using join now. Other options include account information, purchase history, sams credit card, etc.

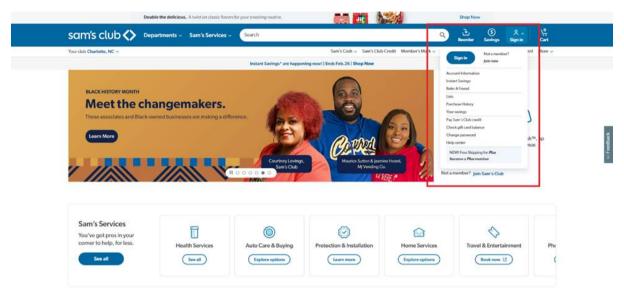


Figure 5: Actions under the "Sign in" option

Search – Users can search for products based on user requirements using the search bar.

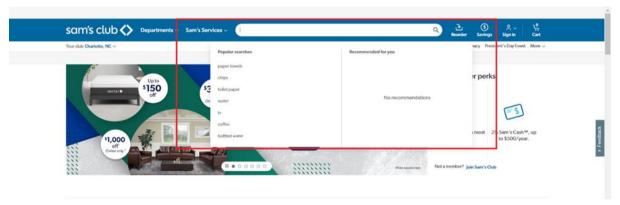


Figure 6: Search functionality

Reorder – The "Reorder" tab on the Sam's Club website is a feature that allows customers to quickly and easily reorder items they have purchased before.

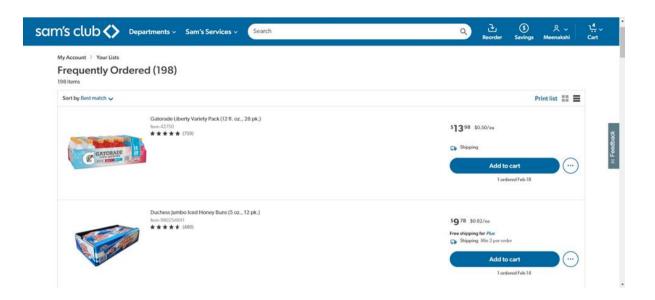


Figure 7: Reorder functionality

Savings- The "Savings" tab on the Sam's Club website is a section that displays current promotions, deals, and discounts available to Sam's Club members.

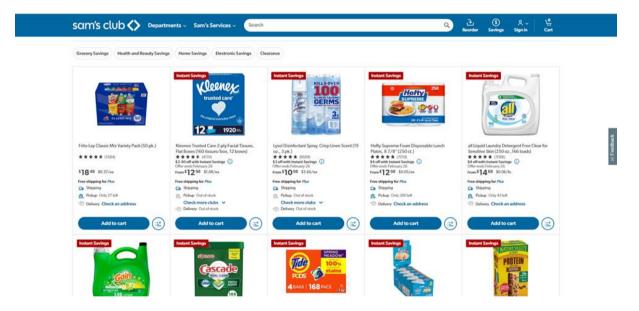


Figure 8: "Savings" tab

#### VISUAL DESIGN

Visual design is crucial for building a website since it influences how the site looks and feels. All the design principles like white spaces, grids, columns, typography, layout, color, etc are well applied in designing the website to achieve the three major goals: guide, pace, and message. Below is the description of various design principles used in the website with their respective images.

#### GRID AND ALIGNMENT

The Grid alignment across the website is not the same as we can see in Figure 9 there are different grids for advertisements and we can observe that for Sam's services, the grid alignment has changed. There are obvious design standards and patterns that may be recognized, even though the spacing of columns and gutters on the website might vary depending on the user's screen size and resolution as well as the particular page or area being viewed.

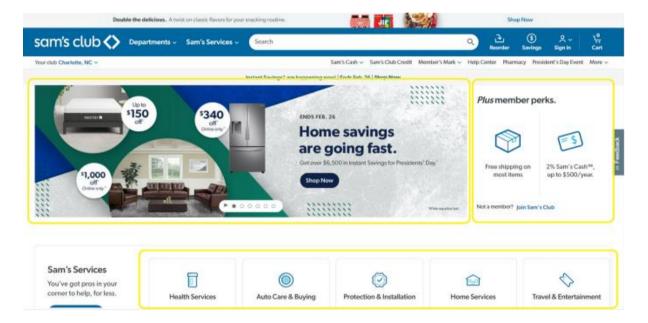


Figure 9: Grid layout

We can see in Figure 10 below there are many columns (which are shown in red marked lines) that are used to show the items in an organized manner so it is easy to see the items and the user can conveniently choose the items for selection. The gutters are shown in blue color which is used to separate the column for a better understanding of the content of the items. The usage of gutters in website design creates a visual distinction between various columns or groups of items, improving the readability of the text and other components by facilitating this distinction for the user. Similarly, in Figure 11 we can observe the gutters and columns. Still, we can also see that the grid is broken in many places such as initially on the top for advertisement the grid is broken for Deli & Sides section and again after that the grid is again broken for the Fresh is the best to section. Also, there are horizontally aligned texts which are marked in purple color. The item names are left-aligned horizontal texts and the heading are center-aligned horizontal

texts. By using horizontal text it is easy and comfortable for users to read and it can also help in using the space efficiently where the left-aligned horizontal text where the name of the items is written helps in accommodating more columns in a single page which is convenient for users.

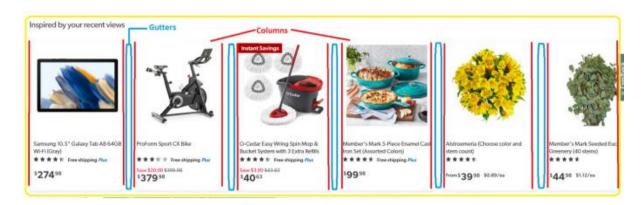


Figure 10: Gutters and columns



Figure 11: Broken grid

Also as we can see in figure 12 there is a lot of white spacing used around the website which is essential for a good user experience as it helps the user to concentrate on important aspects, and also for better readability. It also gives the website an excellent visual appeal with a sophisticated look.

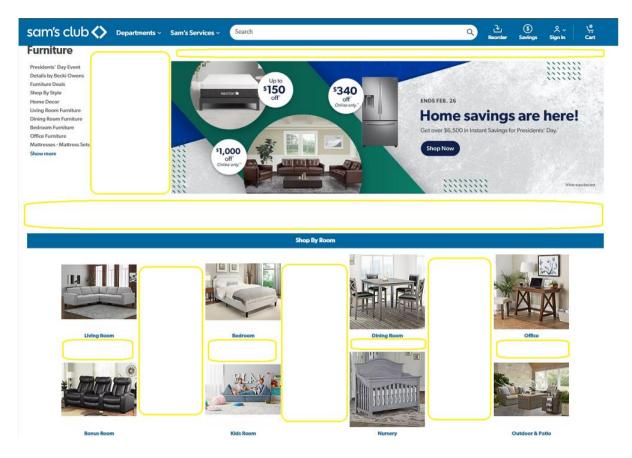


Figure 12: White spacing

#### TYPEFACE AND EMPHASIS

Fonts are an important part of a website design as they affect the user experience and readability of the user. The Sam's Club website uses sans serif font overall. This is because the sans serif font is easier to read and is also most commonly used across all websites. With this font selection, the company presents a contemporary, clean, and appealing appearance that fits with its values and target market. Sans-serif fonts may be simpler to read for those who have visual impairments, which is why accessible design frequently employs them.

As we can observe in figure 13, on the homepage of the website sans serif font is used for the header which includes department, Sam's services, search bar, etc. which is clear to read and understand, also the same font is followed in the subsection of the main headers, for example as shown in figure 13, for departments subsection, sans serif font is used and is very clear to read showing the importance of consistency in font throughout the website.

Also in figure 14, we can observe that for advertisements, the same font is used, it looks effective for the users to read, and with big font size and use of sans serif makes it attractive to the users.



Figure 13: Fonts used in the department section and header of the website

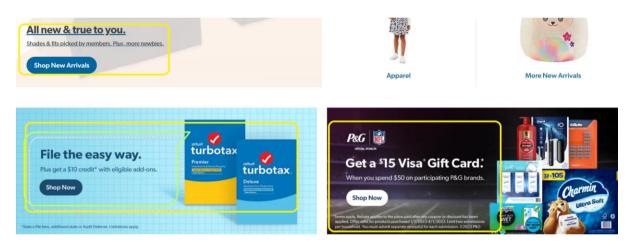


Figure 14: Font for advertisements on the website

Talking about the font size, it is used very effectively throughout the website, the headers on the top of the website are used good font size, observing figure 15 the font size used in the subsection is good, but it could be increased a little for better readability for people with visual problems.

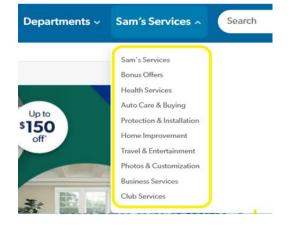


Figure 15: Sam's Services subsection font size

In figure 16 for the item names the font size is good and for pricing labels, the font weight is increased with font size making it easy for users to recognize the price.

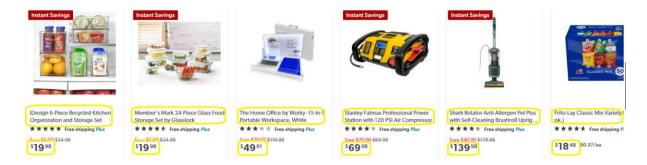


Figure 16: Font size of the item names

In figure 17, headings on the top of the website including departments, services, etc. have a good font weight which is helpful for the users because those headers are seen on almost every page of the website as they are frequently accessed by the users. And the headings under the department's section are given good font weight which helps in good identification of particular departments. Also, advertisements throughout the website are in bold and big font sizes for attracting customer attention.

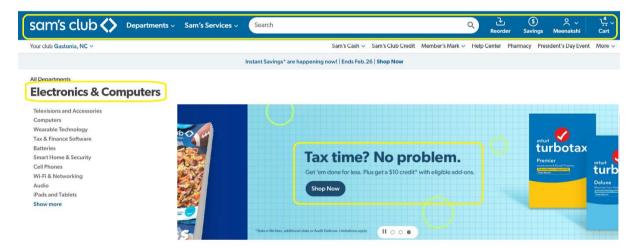


Figure 17: Font weight of headings and advertisements.

In figure 18, we can observe the dominance of blue color on the website. There are many colors used throughout the website but blue is used consistently all around, which makes the user comfortable instead of using different colors and makes the user stressed. Other than blue, red(showing the discount price under the item) is used in a few places, and light blue colors are used in advertisements and a few other places. And the green color is also used in a few places such as the 'shop now' button in advertisements.

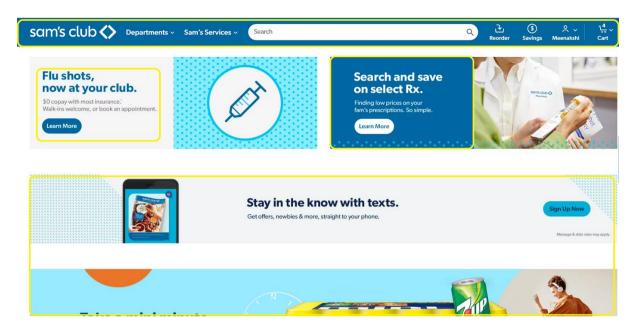


Figure 18: Dominance of the blue color on the website

#### VISUAL DESIGN CRITIQUE AND IMPROVEMENT

The Visual design is pretty good for the website and is comfortable for any user to browse all around the website. Usability, accessibility, and appeal are important aspects of the website. The evaluation of visual design critique involves analyzing the organization of content, the balance, and contrast of color, the consistency of font, etc. The overall efficiency of the website is depicted by how well the website is able to communicate with users, in this case, Sam's club's website has a good visual user interface with consistency in the usage of color and font. Also, the white spaces are used effectively throughout the website which helps in better readability.

One improvement which I feel should be made is the organizational arrangement of some category items, for example, on a few pages of the website, we can see many advertisements being displayed in an unorganized manner in between the item categories, which could be frustrating for some users. So, better alignment of the advertisements could be beneficial for user experience.

#### INTERACTION TYPES AND MODALITIES

#### INTERACTION TYPE

It is a convention for users to communicate with any kind of application/website. Instructing, conversing, manipulating, and exploring are the four different types of interactions.

Sam's club website uses "instructing" as it way to interact with users. It involves defining and communicating the rules and expected behavior for user interactions with the system, such as input formats(typing commands, selecting options) and the system's responses. This helps users effectively and efficiently interact with the system, and reduces the chance of errors or misinterpretation. The usage of this interaction type is explained using the figures below.

Navigation menu: The navigation menu on the top of the Sams Club website provides clear and concise instructions on how to access different sections of the website, such as membership, pharmacy, and services.

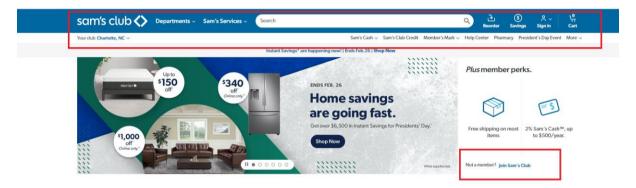


Figure 19: Navigation menu

Product pages: Each product page on the Sams Club website includes clear instructions on how to add the item to the cart, view details about the item, and check availability at local stores.

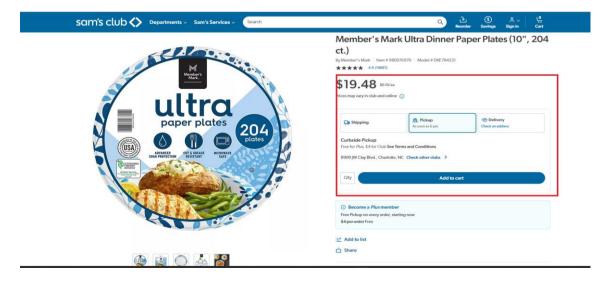


Figure 20: Product page

Account information: The account information page includes instructions on how to update personal information, purchase history, and details about sam's cash.

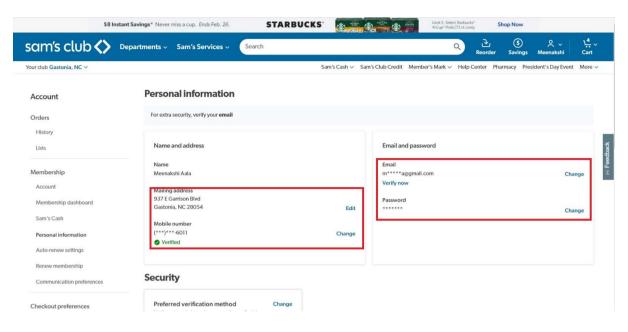


Figure 21: Account information

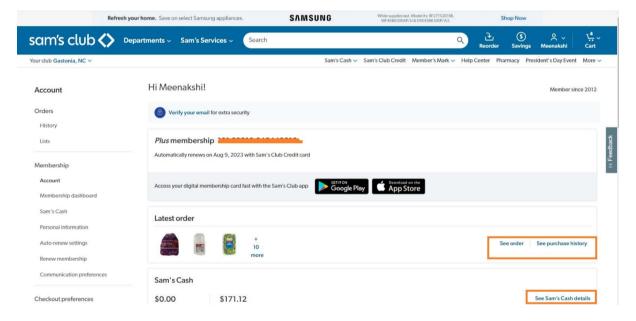


Figure 22: Purchase history and Sam's cash

Help center: The help center on the Sam's Club website provides clear instructions on troubleshooting common issues, finding answers to frequently asked questions, and contacting customer support.

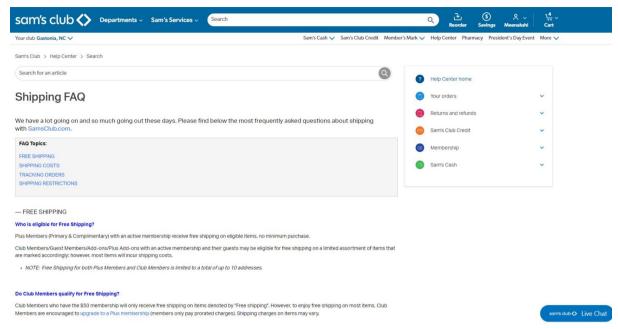


Figure 23: Help center

Membership: When users sign up for a membership or place an order, the website provides clear instructions on the required information for each field and what format the data should be in.

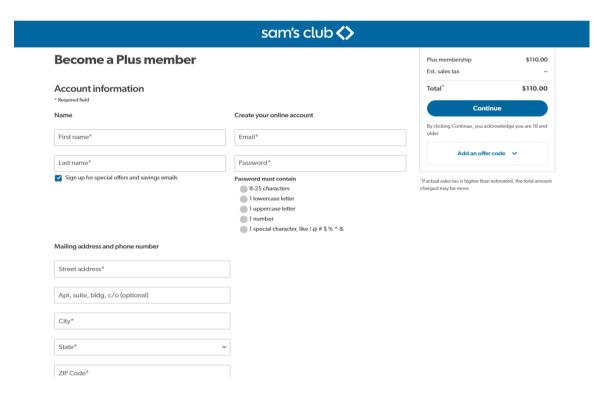


Figure 24: Membership

#### INTERACTION MODALITIES

The web browser's graphical user interface(GUI) and WIMP is the main way to interact with the Sam's Club website. Users of this modality utilize a mouse and keyboard to interact with the website's numerous elements, such as buttons, links, and text fields. GUI and WIMP modality is used on the website in various ways such as

Window: The website uses pop-up windows or modal dialogs to display additional information or prompt the user for action.

Figure 23 below shows the description of changing the club location. So, when we click on the 'find other clubs' button which is present on top of the home page, there will be a pop-up window appears asking for 'zip code or state'.

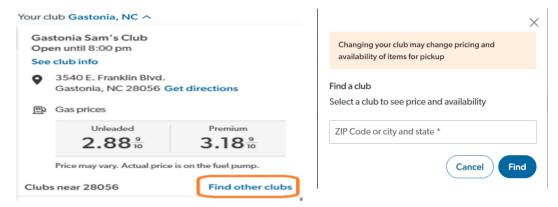


Figure 25: Window pop-up for selecting zip code

Icons: Icons are used to represent actions or features of the website, such as a shopping cart icon to represent the user's shopping cart or a magnifying glass icon to represent the search function, and a sign-in icon representing the user's account sign-in.

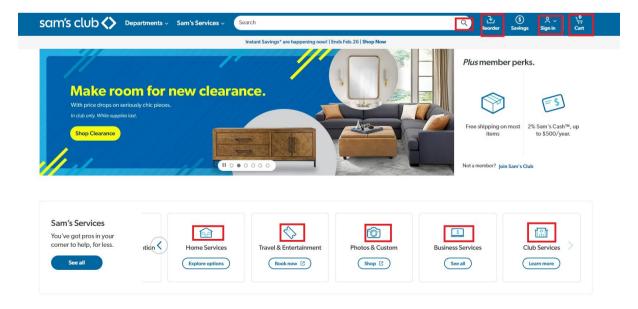
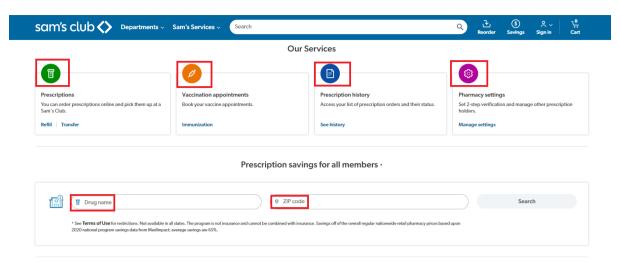


Figure 26: Icons on the home page



More Healthcare Benefits for Sam's Club Members

Figure 27: Icons on the Pharmacy page

Menus: Dropdown menus or navigation menus are used to provide users with access to different pages or features of the website.

Figure 26 below shows the menu dropdown of the user's account name icon which shows different options, and provides access to different pages such as Account information, Purchase history, Help center, etc.

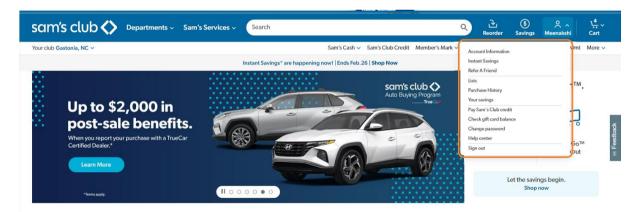


Figure 28: Dropdown menu of Account name icon.

Pointer: The website uses a mouse pointer or other pointing device to enable users to interact with the website's interface, such as by clicking on buttons or links.

Figure 27 below describes that when we click on the 'Buy again' button, it directs us to a different page where 'frequently ordered' items are available. This shows the user's interaction with the website interface, by clicking a button, similarly when we try to click on a link it directs us to the relevant page on the website.

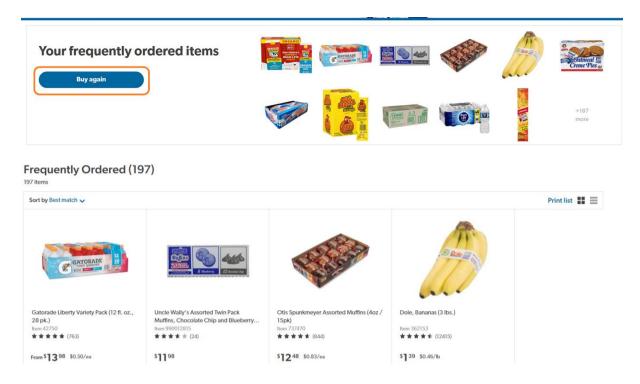


Figure 29: Buy again button

The Sam's Club website also uses audio, video, and image content to support multimedia interaction. To improve user experience and offer more information and chances for involvement, several multimedia components have been included in the website. A product page, for instance, can have pictures and videos to highlight the products and their qualities, whereas instructional or instructive content might have audio files or instructional films.

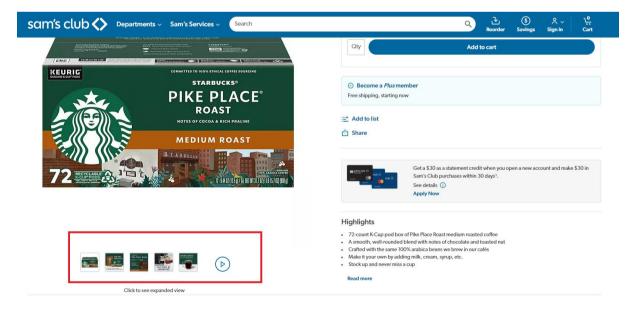


Figure 30: Multimedia interaction modality

In addition to the above interaction modalities, Sam's Club website also includes information visualization and dashboard elements as part of its interface. For tracking order history,

checking account information, and keeping track of club membership status, for instance, the Sam's Club website may have dashboards. These dashboards may convey data in a clear and succinct manner by using information visualization techniques including bar graphs, pie charts, and tables.

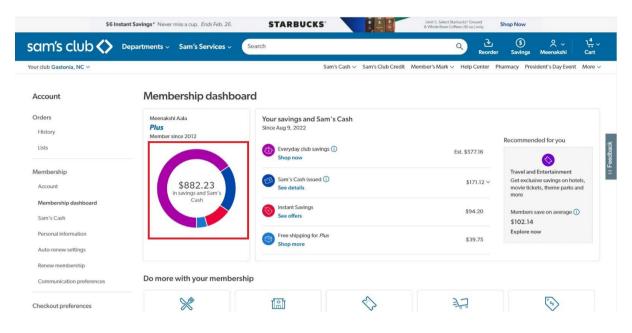


Figure 31: Visualisation and Dashboard modality

#### INTERACTION TYPES AND MODALITIES CRITIQUE AND IMPROVEMENT

Overall, the website makes good use of interaction types and modalities. The best part is using multiple modalities instead of sticking to just one type which makes the user interaction more effective. Even though the website has positive points, I feel there are a few recommendations that would make its design more efficient.

To improve the user experience, the Sam's Club website might incorporate more modalities like touch gestures, voice commands, augmented reality, and virtual reality. Customers may be able to interact with the website in new and creative ways as a result, making purchasing simpler and more interesting. Customers may also have a more engaging and accessible purchasing experience by utilizing technologies like voice search, touch-enabled navigation, and AR/VR product visualization. To provide visitors with a more immersive shopping experience, Sam's Club might potentially incorporate augmented reality and virtual reality experiences in addition to these standard modalities. This might include virtual retail tours, 3D product views, and even product demos. Users may find it simpler to imagine things in their own environments and make wise purchasing decisions as a result.

Along with the modalities, the website could also incorporate more interaction types such as conversing which uses a computer program through natural language dialog, typically through

text-based input and output to interact with users such as chatbot, and voice search. It would help users to get answers to their queries in a faster and more efficient way.

## AFFORDANCE, SIGNIFIERS, AND GULF

Affordances: The characteristics of an object or interface that provide hints as to how it might be utilized are called affordances. Physical characteristics like shape and size as well as visual signals like color and texture can be included in this. Achieving this reduces the execution gap and makes an interface easier to use. This is the purpose of affordances.

Signifiers: The status of an object or system or the actions that can be taken are indicated by signifiers, which are cues inside an interface. Signifiers are intended to give the user clear, succinct feedback, assisting them in understanding the state of the system and the effects of their actions.

The Sams' website uses various affordances and signifiers, a few of the objects are listed below with respective screenshots and descriptions.

Throughout the website, there are a lot of affordance and signifiers, a few of which are shown in the figures below.

First, we can see that there is a drop-down arrow on top of the webpage which allows one to click on it for additional options related to the particular section/department. It signifies that a list of options/departments will appear downward. There is a search icon at the end of the search bar which signifies the search and affords you to click on it to search for the particular items entered in the box.

There is a shopping cart icon on the top left corner which signifies the shopping cart and clicking on it affords you to go to the cart section where added items are listed. Also, there is a review given for each item which signifies the rating given to the particular item, and clicking on it affords us to go to the review section where we can read or write a review for the item.

In the next figure, we can see there is an info icon that affords to click on it for the extra information regarding the description written beside the icon. It signifies additional information.

Next, there is the 'Add to list' button which signifies the list of items, and clicking on it affords to go to the list section and add a particular item to the list. Lastly, there is a share button below the add-to-list button. It signifies sharing content and clicking on it affords one to share the particular item through the options provided such as Email, Facebook, etc.

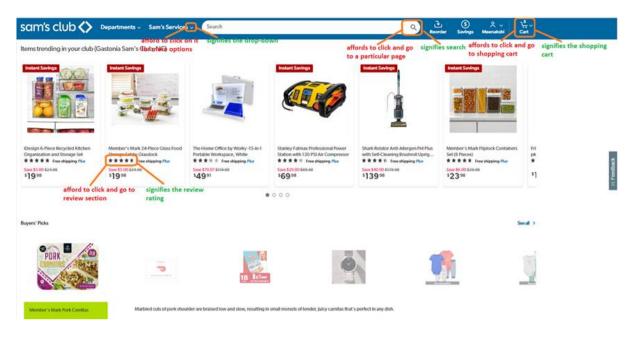


Figure 32: Affordances and Signifiers (1)

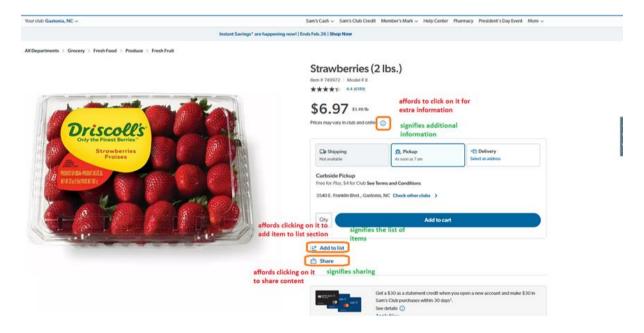


Figure 33: Affordances and Signifiers (2)

#### **GULF OF EXECUTION**

#### Task 1: Searching for a particular product:

When the user intends to search for a product, then the user will be looking for a place to search for the product. As we can observe on the website a search bar with a large font size is on the top of the screen. So the user can easily identify the search bar and can search for a product.

Because of the large font size and also as it is visible on the home screen of the website, it is quite easy for any user to identify the search bar to search for an item.



Figure 34: Search bar in Gulf of execution

#### Task 2:Adding an item/product to the cart:

A user might want to add the product and decide to buy it later. After opening any product there will be an option to add to the cart beside the product image where a user a click and the cart items can be found on the top of the screen by clicking the cart symbol.

Each item/product has an add-to-cart option, it should be simple for any user to find it beside the product image.

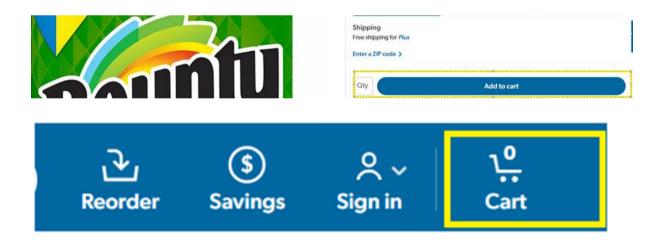


Figure 35: Add to cart in Gulf of Execution

#### Task 3:Sorting for a particular set of products:

A user might want to sort a particular set of items according to their need. We can observe there is a department section on the top of the screen where we can select any particular department by the user's choice.

Similar to the other tasks determining to sort any product is not a difficult task as we can see the department section on the top of the screen just next to Sam's club icon, just by clicking it we can see all the department sections available.

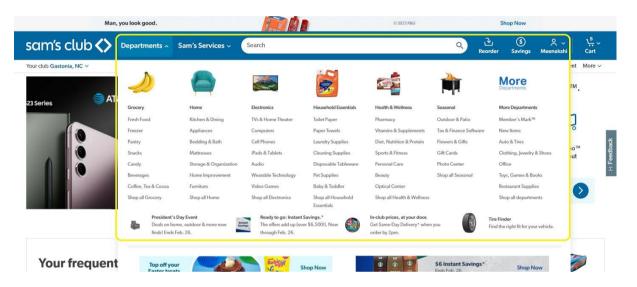


Figure 36: Sorted products in Gulf of execution

#### **GULF OF EVALUATION**

#### Task 1:Searching for a particular product:

After searching for any particular item, all the results related to the search appeared as shown in the screenshot. So the user can see the search results and keep scrolling through the items until the intended item is found.

After performing the search action the items are listed in a grid manner, and the user can see the results and its description. By seeing the results user can identify that a different screen appeared with all the related searched items.

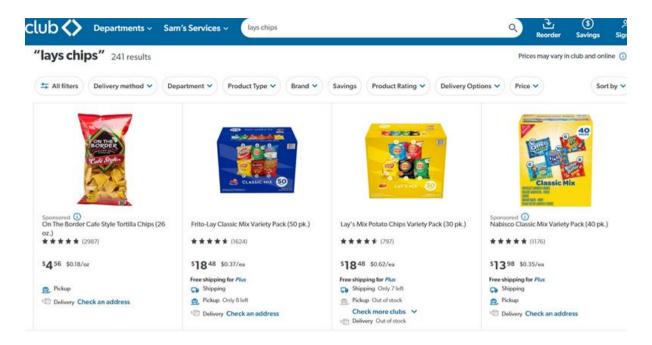


Figure 37: Search item in Gulf of evaluation

#### Task 2:Adding an item/product to the cart:

After performing the add to cart action the user needs to click on the cart icon on the top and can see the items added to the cart.

After going to the cart section we can see that all the items which the user added will be visible in a listed manner and can confirm that all the items are present, and the user can see it as shown in the screenshot below. Also, the user can see the quantity of each item in the cart section. There will also be a prompt screen after adding each item to the cart, where can go directly to the cart by clicking view cart.



Figure 38: Cart items in Gulf of evaluation

#### Task 3:Sorting for a particular set of products:

Post-clicking the department section and selecting the intended department the user will be able to see that sorted section in a separate window. Below is a screenshot of an example of the Fresh food sorted section. And also users can further sort it into various categories.

After accomplishing the sorting action, by seeing the window as shown in the screenshot the user can indicate, the selected department section appears in a grid manner where different categories are shown.

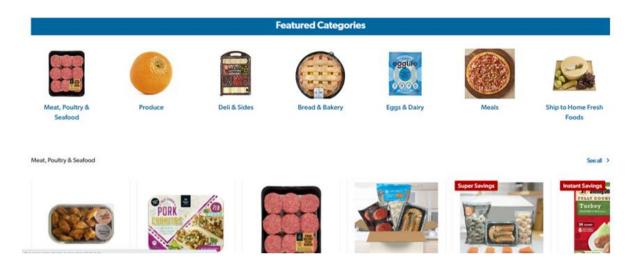


Figure 39: Sorted products in Gulf of evaluation

#### CRITIQUE AND RECOMMENDATIONS FOR IMPROVEMENT

Overall, in what ways was your website successful in its use of affordances, signifiers, and the gulfs of execution and evaluation and in what ways could it improve? Be specific with some examples.

The sam's club website is brilliantly designed with its main navigation bar set up right at the place where individuals would look for, a piece of certain information for example let's consider the Departments part of the navigation bar which offers affordance of being able to find the categories the website has to offer. It would help the individuals to search for the product they are looking for. Speaking about signifiers, the website uses pictures and icons gracefully as needed which would also help individuals to identify what a certain section of the web page is responsible for. If not properly taken care in putting effort into giving icons relevant to products any individual might eventually leave the website with a bad experience.

The Gulf of execution and evaluation of the given website is also pretty standard since all the sections of the website are labeled with nouns and there is a button that is a verb to say what happens when you click or what can you expect when you click and change the state. As for the website, the actions to be performed are clearly shown which eases the execution part easy

for the individuals and the evaluation is also good since even clicking the state of the page is changed.

As for this website(sam's) is considered it is very well designed and built. There are not many changes that I can think of. Maybe a chatbot would be an interesting feature in an e-commerce website in near future.

#### **HEURISTIC EVALUATION**

Heuristics evaluation is a usability inspection technique that aids in identifying issues with a product's user interface. Typically, an evaluation is carried out by a group of specialists who are guided in their analysis by a predetermined set of heuristics (principles). A report that outlines the issues and makes recommendations for how to fix them is the result of a heuristics evaluation. Designers and programmers can utilize this report to enhance the user experience of the product. Both sketches and functional user interfaces can be used for this.

Here is the list of Neilson's heuristics principles:

- Visibility of System Status
- Match between system and the real world
- User control and freedom
- Consistency and standards
- Error prevention
- Recognition rather than recall
- Flexibility and efficiency of use
- Aesthetic and minimalist design
- Help users recognize, diagnose, and recover from errors
- Help and documentation

# HEURISTIC EVALUATION TABLE

The table below represents the list of issues on the website along with the corresponding heuristic.

	I	ı	
Issue/observation (Pos or Neg)	Heuristic	Image	Severity (1 -5 point scale, where 5 is very bad)
Any item that is under an offer for a limited period of time shows the exact state, time, actions, and next steps for the product. Example checkout, time remaining, and reduced difference.	_	Figure 40	
The users have control of the purchase of an item and undo the addition and are also able to cancel the item after the purchase.		Figure 41	
The website is designed in a modular fashion, and the items of a similar category are organized in a similar way.		Figure 42 and Figure 43	
If any product is not available at the merchant's end the website does not provide any details like when it will be available again or when it will be back on sale, etc.	prevention	Figure 44	1
The website does not provide any AI tools for customer support such as a chatbot that addresses user issues.	_ <u>*</u>	Figure 45	2

A lot of white space is used throughout the website, making it clean, well-organized, and simple for users to navigate. The website employs mostly the color blue throughout and uses other colors less frequently.	minimalist design	Figure 46	
Whenever a user navigates to any page in the website the basic options of Departments, Sam's services, search bar, profile section, shopping cart, etc., are present at the top of every page navigated throughout the website. This makes it easy for the customer to search for any new item or department easily instead of recalling back to previous pages.	rather than recall	Figure 47 and Figure 48	
When a customer adds an item to a cart there is no message displayed (warning) before adding the item to the cart, as sometimes the user might accidentally add an item to the cart and could not notice until it is late.	prevention	Figure 49	2
The layout of the website is not consistent throughout and there are advertisements in between the items which are placed in an inconsistent manner, which can be frustrating for users sometimes.	and Standards	Figure 50 and figure 51	2
The website uses the terms such as Health & Wellness, services, household essentials, etc. which makes it easier for users to understand and navigate the website.	system and the		
The filtering options for the items or department meet every need of the customer for example for an item there are many filtering options such as price range, and brand.		Figure 53	

When a new user tries to log in without creating an account, it displays an error message showing that the email address and password do not match and asking to reset the password.	recognize,	Figure 54	3
The website's return and refund policy information is not prominently displayed and must be found by scrolling through several pages. This can be frustrating when they want to return an item soon.	diagnose and	Figure 55	2
When an item is Out of stock it is shown below the item name description, which can be easy for a user to decide on the item.	_	Figure 56	
When the items are out of stock, there is an option to see substitute items of a similar kind which is an efficient way to navigate, instead of going back and searching for items again.	efficiency of	Figure 57	
The website provides an option of "reorder" which helps users to repeat one of their past orders.	_	Figure 58	

Table 1: HEURISTIC EVALUATION TABLE

Below is the summary of various heuristics principles applicable to Sam's website

## **POSITIVE OBSERVATIONS**

- Visibility of system status:
  - → The system here explains clearly the special offer as shown in the above image. It explains the price difference between the original price and the sale price, whether the products on sale are available for delivery/pickup, and also the time by which the products need to be selected.

→ If a product is currently not available at the merchant to end the current status is shown as "out of stock" below the product description which helps users go for other products.

Instead of showing "Limited Time" on the product above there could be a countdown or the end date which exactly shows the time left for the special offer so that users can be aware of it.

#### • User Control and Freedom:

- → While browsing through the items users have control to add and delete the number of items that can be added to the cart as per their requirements. Along with this they also have the option to cancel the order even if the order can be confirmed by the merchant.
- → The filter option provided by the website allows freedom for the users to cut out the items and get only a limited number of items as it eventually helps users decide on products based on their choice

## • Consistency and Standards:

The website content is maintained consistently through the most number of pages. The above-mentioned images clearly show how each department's layout is similar to each others. From the home page when users go to the departments' section different categories are maintained in the same fashion. Similarly, when you click on each specific category, subcategories are aligned to the left corner with related offers and deals to the right of it. Each sub-category with respective images is aligned with the rest of the page.

#### • Aesthetic & minimalist design:

Instead of mixing the website with multiple colors, it uses basic colors such as blue and white are used in most parts of the website and also the overall look of the website is pleasant. In addition to this website also whitespaces wherever it is required which helps users to have clear visibility.

#### • Recognition rather than recall

The core navigational options of Departments, Sam's services, search, profile section, shopping cart, etc., are always available at the top of any page a user navigates to on the website. Instead of having to remember to go back to earlier pages, the consumer can easily search for any new item or department thanks to this.

#### • Flexibility and efficiency of use:

- → Whenever a product status is out of stock the user has to search for an alternative all by themself. In order to avoid such difficulty the website provides an efficient way of displaying alternative items for the product chosen by the user. This not only saves a lot of user time and also provides flexibility for searching.
- → The "reorder" option on the website helps users to repeat their order from one of the past orders. This provides users the flexibility of choosing products directly instead of searching for the products overall again.

#### • Match between system and the real world:

The website offers various services to users ranging from groceries to health & wellness. The entire website uses simple language in order to help users with easy understanding and navigation.

#### **NEGATIVE OBSERVATIONS**

#### • Error Prevention:

When a customer adds an item to the cart, it means he/she wants to buy the particular item. So if by mistake any wrong item is added to the cart and the customer places the order without checking it will be a problem and frustrating. So there is need for a warning message or asking for confirmation to add the item to the cart is vital.

Recommendation: After clicking the add to cart button below the item, there can be a separate pop-up displayed with a particular item description asking the user for confirmation (YES/NO) for adding to the cart.

#### • Help and Documentation:

The website provides support contact details and also consists of a complete dedicated page named "Help center" in order to support users with various issues such as orders, refunds, memberships, etc. This page consists of all the descriptions of the issue and also FAQs.

Recommendation: In my opinion, an AI tool such as a virtual chat box would be more helpful to users to get answers to their queries in a much more efficient and quick way.

#### Consistency and Standards:

Even though the layout of the website is consistent through various pages there are some pages where the layout has been interrupted with multiple advertisements as shown in the image. This may be a little irritating for users to see different advertisements throughout the page.

Recommendation: Even though posting advertisements would benefit merchants, they must be handled better so that they will not interrupt users' flow with the page, such as placing them at only one position on the page instead of having them in multiple positions.

#### • Help users recognize, diagnose, & recover from errors:

→ On the login page when an existing member enters the wrong details the website displays a message "username and password do not match", but when a new user who is not an existing member tries to log in with random credentials it still displays the same message.

Recommendation: A new user should always signup and create a new account on the website to log in and proceed further. In this particular website when a new user tries to log in with some random credentials website should display a similar message that states "No account found with the mentioned credentials" and it should redirect the user to signup where he/she can create a new account.

→ Returning an item and getting refunds happen frequently daily. A user would like to refer to the return and refund policies before proceeding with any return. So it is important to make the option to read the policies/rules easily accessible.

Recommendation: Currently the return and refund policies option is at the bottom of the website where the user needs to scroll down completely, instead the option can be brought up to the top of the website, preferably in Sam's services section as it is present in the top and can be relevant.

#### LIST OF FIGURES

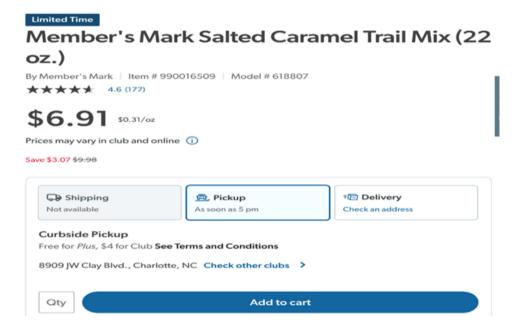


Figure 40: Visibility of system status (1)

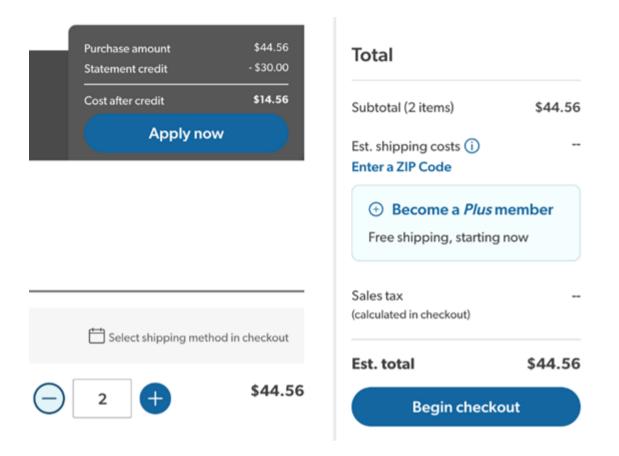


Figure 41: User control and Freedom (1)

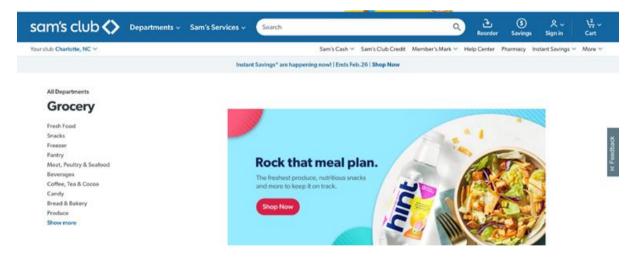


Figure 42: Consistency and Standards (1)

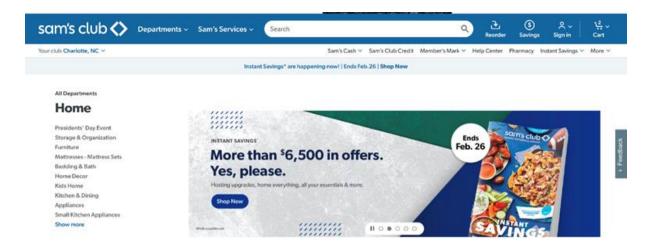


Figure 43: Consistency and standards (2)



Figure 44: Error prevention (1)

# How can we help you today?

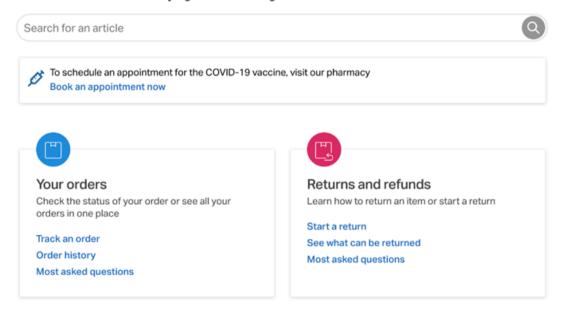


Figure 45: Help and Documentation

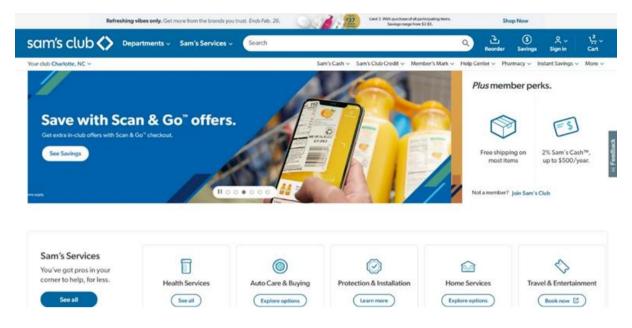


Figure 46: Aesthetic & Minimalist design



Figure 47: Recognition rather than recall (1)



**Health Services** 

Figure 48: Recognition rather than recall (2)

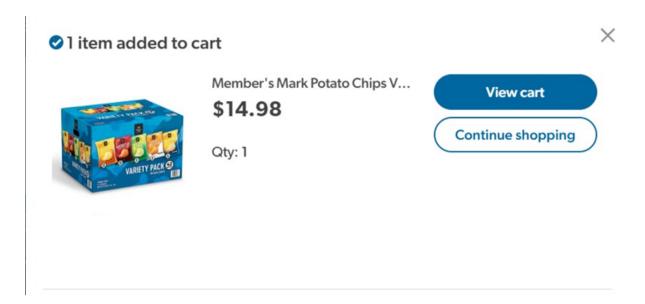


Figure 49: Error prevention (2)

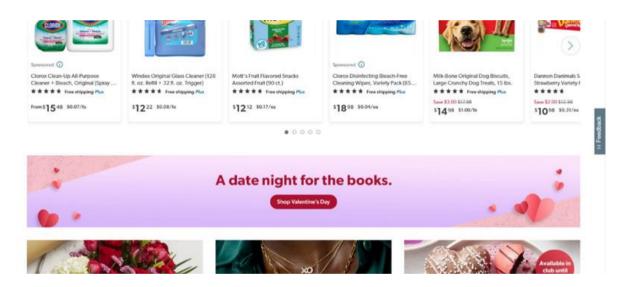
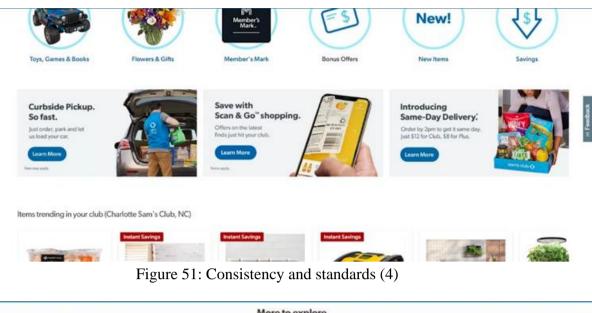


Figure 50: Consistency and standards (3)



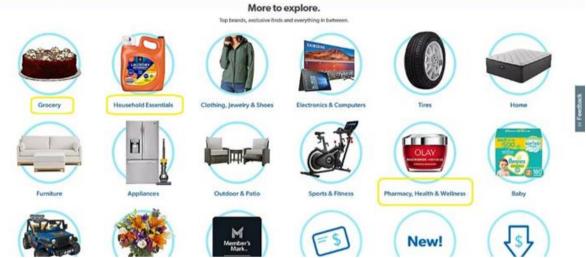


Figure 52: Match between system and the real world

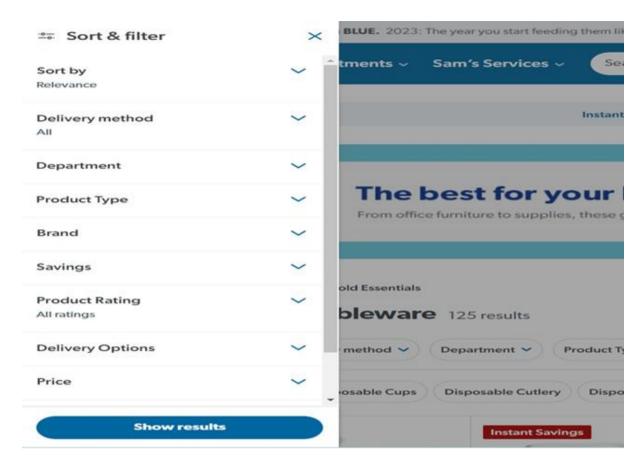


Figure 53: User Control & Freedom (2)

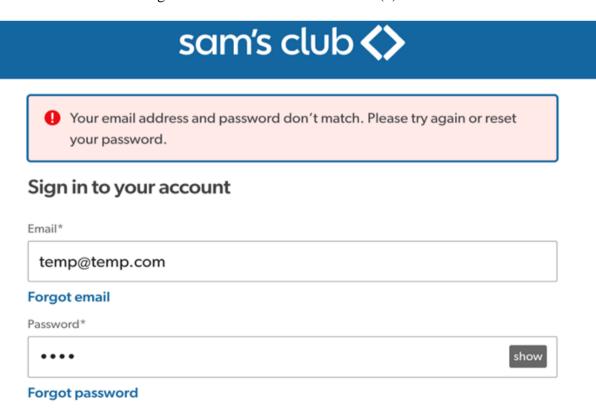


Figure 54: Help users recognize, diagnose and recover from errors (1)

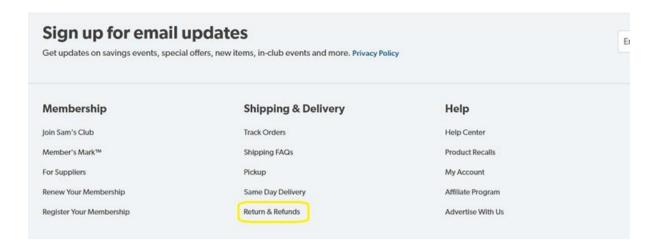


Figure 55: Help users recognize, diagnose and recover from errors (2)

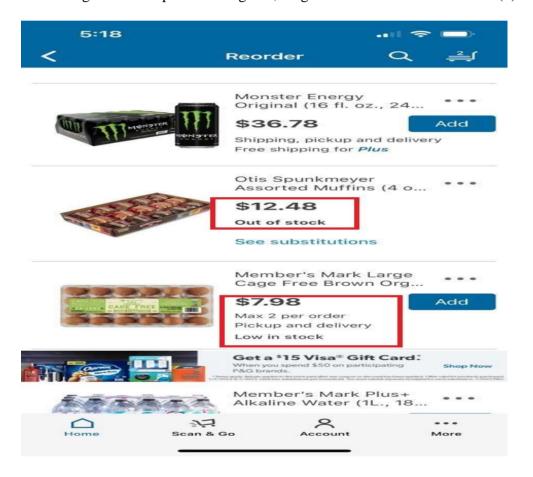


Figure 56: Visibility of system status (2)

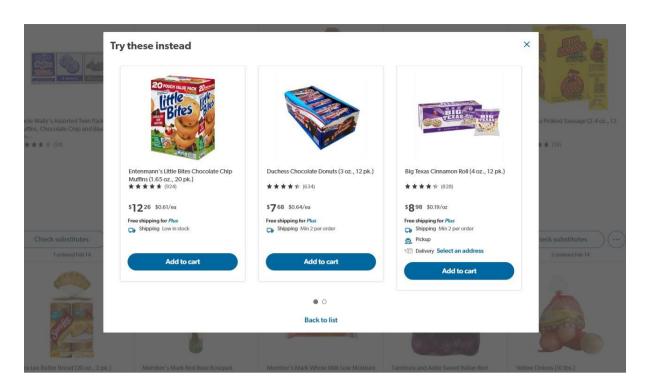


Figure 57: Flexibility & efficiency of use (1)

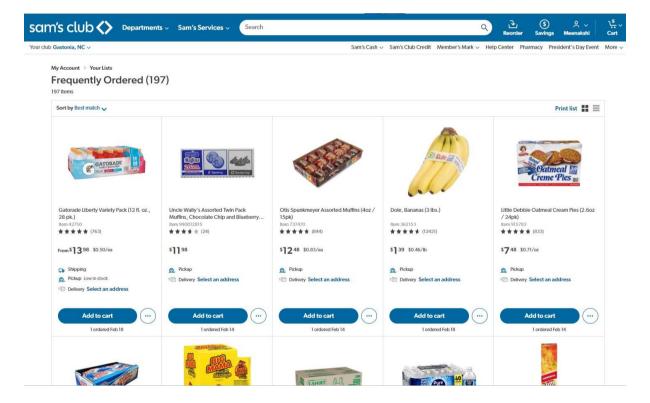


Figure 58: Flexibility & efficiency of use (2)

## **Conclusion**

To conclude, Sam's club website is a very well-designed website in all visual design aspects like layout, typeface and emphasis, interaction types, interaction modalities, affordances, signifiers, and gulf. It also follows most of Nielsen's heuristic principles. But, as per my observations, a few things need to be improved in some aspects to make its design more effective and appealing.

The website has a good visual design that is user-friendly, with effective use of white spaces and consistency in font and color usage. However, the placement of advertisements on some pages is unorganized and could be frustrating for users. It effectively utilizes multiple interaction modalities, but there is room for improvement. Incorporating more modalities like touch gestures, voice commands, and augmented and virtual reality can improve user experience. Adding more interaction types such as conversing through chatbot, and voice search can help users get answers to their queries quickly and efficiently.

The use of affordances and signifiers, such as its navigation bar and the icons, helps users easily navigate and identify sections of the website is also successful. The Gulf of execution and evaluation are also standard, with clear labeling of actions and changes in page state.

In heuristic evaluation, even though there are many positive points, it is suggested to display a pop-up for confirmation after clicking the "add to cart" button, place advertisements in only one position to avoid interrupting users, display a message for new users to create an account if they log in with random credentials, and bring the return and refund policies option to the top of the website under Sam's services section so that it enhances the visual design of the website.