

A New Design Strategy to Increase Usability in E-Commerce Web Sites

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Abstract:

The usability issues in some of the e-commerce website design refer to aspects of a website that hinder its intuitiveness and ease of use, Complicated or inconsistent navigation system makes it difficult for users to find the information they need, and accomplishing the online purchasing process easily and securely in E-commerce websites , from this point the research problem arose, where there a crucial need to have a specified design strategy to be followed and applying the style tile to achieve visual consistency to enhance the usability in the E-commerce website designs, The aim of this paper is to Present a new Design Strategy with a specified steps for E-commerce websites and Apply the Visual Consistency using Style tile to enhance the Usability in E-commerce websites. This paper followed the experimental approach by designing E-commerce website for an Egyptian brand for headscarf following the steps in the proposed design strategy and designing a style tile to be applied in the layout of the website to achieve visual consistency, then present this design to test the usability to a focus group of the potential users of the website to obtain the results, the experiment showed a satisfactory impact of applying the steps of the proposed design strategy and applying the style tile as an effective way to achieve visual consistency which enhance the usability in E-commerce websites.

Keywords:

Design Strategy, User Experience design, User Interface Design, Usability

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1. Introduction:

Interactive Design is characterized as an area of research that prioritizes user-centric approaches in order to effectively convey media through collaborative procedures involving individuals and software.

The primary emphasis of interactive design lies in the development of captivating interfaces that exhibit carefully crafted functionalities. E-commerce Websites with cluttered layouts overwhelm users and make it challenging to focus on important content. Excessive use of advertisements, excessive text, or unnecessary graphics can hinder usability.

E-Commerce website design needs a lot of steps including the good integration between user experience and user interface designs in order to establish the appropriate usability toward the user and to build a good interactive experience between the user and the website this paper will introduce a proposed design strategy with a specific step to accomplish intuitive and visual consistent E-commerce website designs to increase and enhance usability.

Problem Statement:

The problem of this paper can be summarized in the following questions:

- 1- Will the proposed design strategy for E-commerce websites improve its usability?

- 2- Does applying the style tile to achieve visual consistency enhance the usability of the E-commerce websites?

Research aims:

The research aims to:

- 1- Present a new Design Strategy for E-commerce websites to improve usability .
- 2- Apply the Visual Consistency using Style tile to enhance Usability in E-commerce websites.

Research Assumptions:

- 1- The research assumes the following:
- 2- Following the proposed Design Strategy steps will decrease the usability issues in the E-commerce websites.
- 3- Designing a style tile to achieve visual consistency will improve the usability in the E-commerce websites.

Research Methodology:

The research relied on the experimental study by proposing a specified steps for a new design strategy to design E-commerce Website for an Egyptian brand and measure its impact on usability through a focus group as a qualitative approach to obtain the results.

Literature review:

Digital products, such as websites, mobile applications, and interactive media, involve the design of user interactions, behaviors, and visual elements to enable effective communication and interaction with the software.

Interactive designs promote dialogic communication, establishing trust and collaboration between users and software. This fosters deeper

engagement and understanding. Additionally, organizations use interactive media to go beyond traditional marketing strategies and build positive and productive relationships with their audience.

For effective communication in interactive designs, including e-commerce websites, good usability is crucial.

Usability refers to how users can efficiently achieve their objectives with a product or system while having a satisfactory experience. Designers can achieve usability by adopting a user-centered approach, creating clear and consistent interfaces, simplifying complexity, designing for responsiveness, providing feedback and error handling, and conducting usability testing with representative users. (Yvonne Rogers, 2023)

To attain usability in E-commerce websites, several principles can be applied as follows:

- 1- **User-Centered Design:** Incorporate users into the design process by adopting a user-centered design approach. Engage in user research, gather feedback, and iterate based on user insights to ensure the design meets their needs and preferences.
- 2- **Clear and Consistent Interface:** Establish a clear and consistent interface by employing standard design patterns. Like style tile to build intuitive navigation, and visual cues. (Krug, 2014)
- 3- **Simplify Complexity:** Break down complex tasks or processes into manageable steps to simplify them. Provide clear instructions, progressive disclosure, and contextual help to guide users through the interaction flow and reduce confusion.
- 4- **Responsive and Adaptive Design:** Design interfaces that adapt seamlessly to different platforms and screen sizes to accommodate various devices. Take into consideration responsive design principles to ensure an optimal user experience across different devices.
- 5- **Feedback and Error Handling:** Furnish immediate and appropriate feedback to users when they perform actions or encounter errors. Employ visual cues, validation messages, and error prevention techniques to help users understand the system's response and recover from errors effortlessly.
- 6- **Usability Testing:** Evaluate the design and identify usability issues by conducting usability testing with representative users. Gather feedback on the ease of use, efficiency, and satisfaction of the interaction process.

Iterate and refine the design based on the findings. (Norman, 2013)

The ideal workflow for designing E-commerce websites typically follows a user-centered design approach to make the design more intuitive and usable, Here is a general outline of the E-commerce websites design workflow:

- 1- **Research and Analysis:** Conduct research to understand the target audience, their needs, and the context of use. Analyze user requirements, business goals, and competitor analysis. This phase may involve user interviews, surveys, and Focus Groups.
- 2- **Information Architecture:** Create an information architecture that outlines the structure, organization, and navigation of the e-commerce website. This involves defining content hierarchy, navigation patterns, and labeling systems to ensure easy access and findability of information.
- 3- **Interaction Design:** Develop the interaction design by defining how users will interact with the website. This includes designing user flows, wireframes, and prototypes to demonstrate the sequence of actions and screen layouts. Consider usability principles, accessibility, and user feedback during this phase.
- 4- **Visual Design:** Apply visual elements to the wireframes or prototypes, creating a visually appealing interface that aligns with the brand and user expectations. Consider visual consistency by designing a style tile that include the proper, typography, color schemes, and graphics to enhance the overall user experience.
- 5- **Prototyping and Testing:** Create interactive high-fidelity prototypes to simulate the user experience. Conduct usability tests with representative users to gather feedback and identify areas for improvement. Iterate on the design based on user feedback and test results.
- 6- **Development and Implementation:** Collaborate with developers and provide design assets and specifications to ensure accurate implementation of the website. Maintain close communication to address any technical constraints or feasibility issues.
- 7- **Evaluation and Iteration:** Continuously monitor and evaluate the website through user testing, analytics, and user feedback. Identify areas for enhancement and iterate on the design to improve the overall user experience. (Yvonne Rogers, 2023)

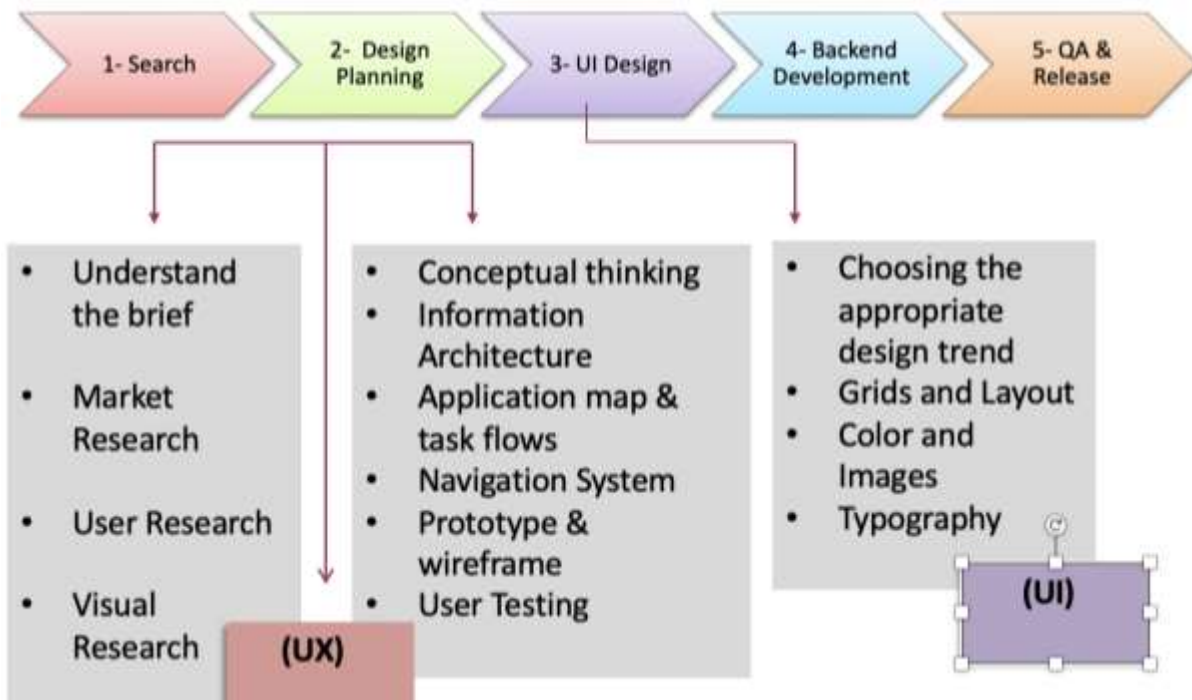
Methodology:

The author went through experimental study by designing E-commerce website through following a specified proposed steps of interactive design

strategy these steps divided into two main steps A) User Experience Design (UX Design) , B) User Interface design (UI Design)

Then author went through the qualitative approach by using a focus group consisting of six members to be involving in the user experience design process and in the usability testing by asking everyone in

The proposed design strategy is consisting of the following steps displayed in the following diagram



Dig (1) Interactive Design Workflow

- The first two steps of the design strategy which are (search and Design Planning) are related to the User Experience Design (UX Design) which including a deep search about user characteristics, needs, wants and expectations, the user Experience Design steps focuses on designing an intuitive navigation system and making usability testing to ensure that the interactive experience is user friendly the first step of user Experience Design is search which focusing on gathering information about the following :

1- Market research:

Market research involves gathering and analyzing data about a specific market or industry. It entails collecting information on consumer preferences, market trends, competitor analysis, and other relevant factors that can impact the success of a product or service.

2- User Persona:

The most common technique to know the users is making a persona profile of each category of users who might use the website, Persona profile is a fictional representation of a specific user or customer segment. It is created based on research

the focus group team to buy an item from the designed website this experiment is to measure the role of the proposed design strategy and the implementation of style tile to achieve the visual consistency to achieve a usable interactive experience toward the users

and data to capture the characteristics, behaviors, goals, motivations, and needs of the target audience. Persona profiles assist designers and marketers in gaining a better understanding of their users and designing products or services that cater to their specific requirements and preferences. (Norman, 2013)

3- Empathy Map:

An empathy map is a visual tool used to develop a deeper understanding of the user's thoughts, feelings, needs, and experiences related to a particular product, service, or situation. It consists of four quadrants: "Says," "Thinks," "Feels," and "Does." By completing the empathy map, designers can empathize with the user's perspective, identify pain points, and discover opportunities for enhancing the user experience. The empathy map aids designers in adopting a more user-centered approach and creating solutions that address the user's underlying needs. (Andrea Resmini, 2011)

The Main Idea of the proposed website:

The proposed experiment is to design an E-Commerce website for a brand called "Sera Zone" it's an Egyptian Brand specialized in designing an

authentic and handmade designs for the head scarfs | (Fig 2) is the logo of the brand.



Fig (1) the logo of the brand

After Determining the idea of the website the second step is to determine the potential users by suggesting persona profiles that clarify the user's characteristics , needs, pain points and expectations from the website ,the proposed persona profiles for this brand will be as shown in Table (1)

Table (1) the main characteristics of each persona and the suitable interactive features

Persona 1		
Main Information	Main Needs and Pain points	Suitable interactive features
-Age: 15-25 years Gender: female -Occupation: University students and recent graduates -Social level: above average -Main interests: fashion and elegance	-Afraid that she will not have a safe purchasing experience through the website. -She aims to always be special and unique in the pieces of clothing she wears	- secured online purchasing experience. - Providing different images of the product that show it as a distinctive piece of art
Persona 2		
Main Information	Main Needs and Pain points	Suitable interactive features
Age: 50 years Gender: female Profession: Housewife Marital status: Mother of four children Social level: above average Primary interests: family and style	-Fear of facing difficulties throught the payment method - She expects to find a good description that includes product prices.	-User – firmedly online purchasing experience. - detailed description of the products and the story of each design.
Persona 3		
Main Information	Main Needs and Pain points	Suitable interactive features
Age: 35 years Gender: male Profession: Civil engineer Social level: above average Marital status: Married with two children Primary interests: family and children	- introducing offers on various occasions. - fear to have diffucliteis finding unique designs to buy as a gifts. - needs to see a clear description of each product and price through the website.	- Providing special offers for the users - A detailed description of the products including price, different images, and description about the materials

After doing the persona profiles the needs and expectations of each persona is clarified Then the interactive features can be more specified as follows:

- 1- A safe purchasing experience
- 2- A detailed description of the products and the story of each design
- 3- Providing special offers for the users

- 4- Providing a special piece every month as a master piece
 - 5- Providing different images of the product that show it as a distinctive piece of art
- Then the design of the flowchart and navigation system of the website was applied by using information Architecture and card sorting techniques.



Information Architecture:

Information Architecture (IA) involves the practice of arranging, structuring, and labeling information in a manner that is both effective and user-friendly. Its primary objective is to enhance the usability and discoverability of digital products, such as websites, applications, and other information systems.

Card sorting is a research method extensively employed in information architecture to gain an understanding of how users classify and mentally organize information. During card sorting, participants are given a collection of cards, each representing a specific piece of information or content. They are then instructed to group the cards into categories that make logical sense to them and assign labels to each group. This process aids in identifying patterns in users' cognitive models and provides valuable insights into how information should be structured and labeled within a digital product. (Louis Rosenfeld, 2015) Card sorting has two commonly used techniques in the following diagram Dig(2)

Card Sorting Techniques:



Dig (2) Two types of card sorting

Open card sorting and closed card sorting are two variations of the card sorting methods used in information architecture research. They differ in the following ways:

- 1- **Open Card Sorting:** Open card sorting involves participants organizing a set of cards

Open card Sorting Results:



into categories of their own creation and assigning labels to those categories. This approach allows participants to freely structure the information based on their understanding and mental models, without any predefined categories or constraints.

- 2- **Closed Card Sorting:** Closed card sorting requires participants to sort cards into predetermined categories or labels provided by the researcher. Participants do not have the flexibility to create their own categories but instead must fit the cards into the predefined classification system.

Hence open card sorting allows participants to create their own categories and labels, while closed card sorting provides predetermined categories for participants to sort the cards into. The choice between open and closed card sorting depends on the research objectives and the stage of information architecture development. (Andrea Resmini, 2011) The implementation of Information Architecture and card sorting techniques was applied in the experiment depending on involving the focus group members which was six as a simulation of real users to take the appropriate decisions of organizing information in the proposed website

as follows:

- Determine the images and the type of each scarf
- Implementing the open card sorting by asking each member of the focus group team to arrange the images of the scarfs into categories and name each category according to their logic and preferences and we had the following results.

<p style="text-align: center;">Participant (1)</p> 	<p style="text-align: center;">Participant (2)</p> 
<p style="text-align: center;">Participant (3)</p> 	<p style="text-align: center;">Participant (4)</p> 
<p style="text-align: center;">Participant (5)</p>	<p style="text-align: center;">Participant (6)</p>

Closed Card Sorting: After determining the main categories according to the user point of view, the main categories are fixed and then we ask the same members of the focus group to re-arrange the cards with a pre-determined category to achieve the most accurate and logical arrangement of the information in the website and then we had the following final result of open and closed card sorting Fig (3), By combining both open and closed

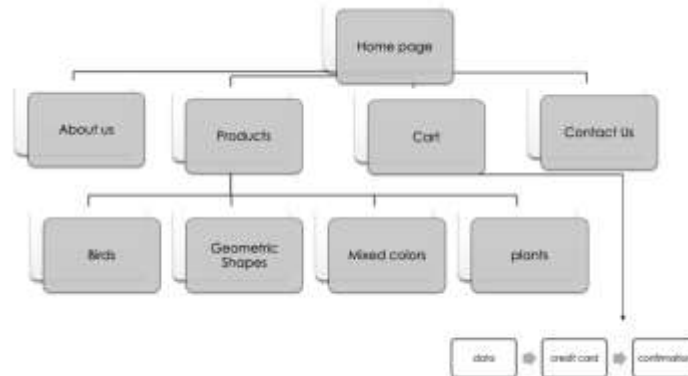
card sorting techniques, it helped to have a valuable insight into how users naturally organize and categorize scarves in the website, while also validating and refining the predefined category structure. This iterative process helps create an information architecture that aligns with users' mental models and enhances the overall usability of the proposed e-commerce website.



Fig (3) Final Result of Card Sorting Techniques

Site mapping: The next step of applying the design strategy is to design the sitemap which is a visual representation of the structure and hierarchy of pages within a website. It provides a high-level overview of the website's organization and navigation. A sitemap typically shows the

relationships between different pages, indicating the main sections, subpages, and how they are connected. After analysis the card sorting techniques and seeing the flow of purchasing that matches with user experience the site map is designed with the following hierarchy Dig (3)



Dig (3) Site map for the proposed website design

Low fidelity Prototype: is a basic representation of a design concept. It focuses on the structure, flow, and overall layout of the user interface without including intricate details. Low fidelity prototypes are typically created using simple tools like paper sketches, wireframes, or digital prototyping tools that allow for quick iterations. They are quick and

inexpensive to create, enabling designers to gather early feedback and test different design ideas, (Jenifer Tidwell, 2020) For the proposed website design Fig (4) is showing the layout of the website and the main interactive features and navigation system as follows

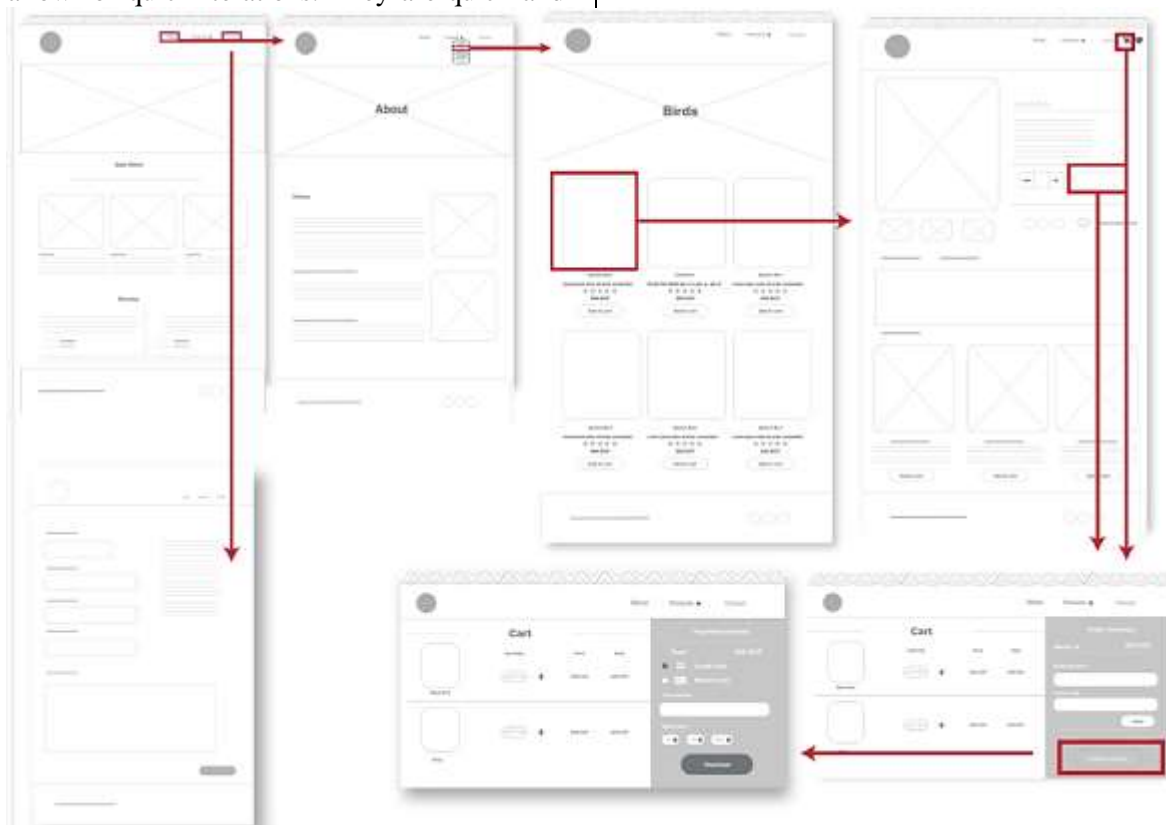


Fig (4) the main layout of the proposed E-commerce website design

User Testing: User testing is a critical component of the UX design process that involves evaluating the website or mobile applications by observing and gathering feedback from real users. The goal of user testing is to uncover usability issues,

understand user behaviours and preferences, and validate design decisions, there are a lot of techniques to implement user testing, The proposed design strategy is following Prototype Testing This technique involves testing after low and high-

fidelity prototypes steps to gather user feedback at various stages of the design process. (Krug, 2010)
Style tile: After designing the site map and the low fidelity prototype the pages of the website becomes more specified and the link between the pages became clearer, in order to translate every single page in the sitemap visually with an achievement of visual consistency the style tile is designed as we can see in Fig (5) A style tile is a design deliverable used early in a project to establish visual

consistency and enhance usability in interactive designs. It is a single-page document that showcases various design elements, such as colors, typography, and buttons. The role of a style tile is crucial in achieving a cohesive visual experience and ensuring a consistent design language throughout the project. Moreover, style tiles contribute to usability and user experience by setting the tone for the visual experience. (Jennifer Tidwell, 2020)

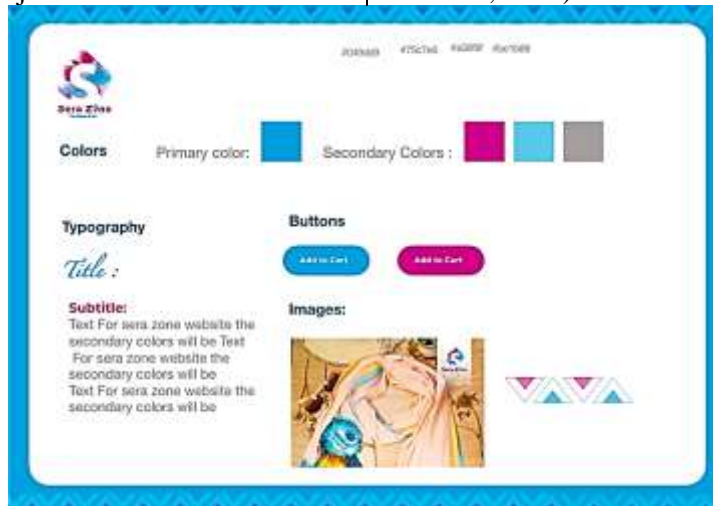


Fig (5) the Style tile of the proposed E-commerce website design








Hight fidelity Prototype design: to design the high fidelity prototype the author used the style tile as a refrence to design the layout , interactive features and concentrated on the dominnat and accent colors of the brand to enhance the brand identity and to

give the user the chance to memorize the brand color which enhances the brand loyalty and memorability , Fig (6) is showing the layout and the implementation of the style tile in the high fidelity prototype design.



Fig (6) the Implementation of Style tile the high-fidelity prototype of the proposed website design
Design considerations of the proposed E-commerce website design to enhance usability:

Table (2) The design considerations of the proposed website design to enhance usability

Design consideration	The visual Analysis	Images for the design
Colors	The colors were chosen depending on the colors of the logo to enhance the brand visual identity primary color was chosen in the main layout of the website and for the main titles and the secondary colors were chosen to highlight the secondary information like subtitles and icons	Primary color:  #048dc9 Secondary Colors :  #75c7e6 #a399f9 #be1b86
Typography	The typography designed to be elegant and simple, the main titles of the products was designed with script font to add the artistic spirit in the design, the rest of the typography were designed depending on just one basic sans -serif typeface to enhance the legibility especially in the call-to-action buttons to make them more predictable.	Title :  Subtitle:  Text For sera zone website the secondary colors will be Text For sera zone website the secondary colors will be Text For sera zone website the
Call to action buttons	Call to action buttons were designed to be simple to motivate users to click on them, colors also played an important role to make the users familiar with the interactive features as the primary color was chosen for the call-to-action buttons and the hovering state were designed with the secondary color to make the interactive features more intuitive and usable.	 Call to action Button Hovering state
Layout	The layout designed to be simple following the basic grid system to achieve the visual consistency by making repeated layout to display the products consistently and to make the appropriate replacement for the call to actions buttons to facilitate and unifying the purchasing process.	
Purchasing process design	The purchasing process designed depending on 2 main steps to make the process simple and usable to the users the user will only click on the cart and then it will be opened with all the details of the products, In the first step the user will check the cart and fill in the delivery data, the second step is about filling in all the payment method data and this step is designed separately to make the data more secured and to let the user be more concentrated while choosing between the options, Hence the design will be more usable and intuitive.	

Procedures of the experimental study: The study aims to reveal if the designed E-Commerce website with the proposed design strategy will enhance the usability. The author focused on investigating two main research questions
 Q1- Will the proposed design strategy for E-commerce websites improve its usability?
 Q2- Does applying the stye tile to achieve visual consistency enhance the usability of the E-commerce website designs?

in addition, this study attempted to test the following research hypothesizes:
 H1-Following the proposed Design Strategy steps will decrease the usability issues in the E-commerce websites.
 H2-Designing a style tile to achieve visual consistency will improve the usability in the E-commerce websites.
 To start the experiment the design has been displayed to the members of the focus group individually each user has been asked to buy a scarf

from the website and complete the purchasing process to the end, then some questions were asked to them to measure some usability considerations, Table (3) is showing the characteristics of the focus group participants.

Focus Group Participants: each persona in the focus group was representing in the experiment by choosing 2 users that are similar to the proposed persona as follows

Table (3) characteristics of the chosen focus group participants

Persona	Age	Gender	User needs	Reason of choice
Persona 1 (2 users)	19	Female	Stylish scarf with unique designs to be elegant in her university	To measure if the interactive features of the proposed design will achieve the persona needs by displaying all the stylish and unique scarf designs
	25	Female	Unique scarf design to be elegant and different in her work.	
Persona 2 (2 users)	45	Female	A mother who wants to be elegant among her family	To measure if the interactive features and the purchasing process of the proposed website is usable to this specified segment of users as elder novice users.
	62	Female	A grandmom who wants to be unique with her scarf design among her friend in the sports club	
Persona3 (2 users)	32	Male	Single man who wants to buy a stylish scarf for his relatives	To measure if the chosen Information architecture design in the website is easy and findable toward this persona despite the difference in gender.
	34	Male	Married and want to buy a stylish scarf for his wife and daughters	

The Purpose of the experimental study is to measure the usability of the proposed website design through the following procedures:

Table (4) The procedures of the experimental study to measure usability

Usability concerns		
Time Calculation	Facial expressions observation	Intuitiveness
Observe the task accomplishment time	Observing the facial expressions of the focus group members during the experiment.	Ask the members this question individually “Do you found it easy for you to purchase through the website”
Design consideration		
Colors	Typography	Call to action buttons
“Do you think the colors is relevant to the brand and make it easy for you to interact “	Did you had the ability to read all the text in the design	Did you found it easy for you to interact with the buttons in the design

Results: In order to take an accurate result, the author calculated the time of each member to purchase two scarfs from the website and also observe the facial expressions during the

experiment and then some questions were asked to each member, all the questions and the answers with the obtained results are clarified in Table (5)

Table (5) the obtained results from the observation and asked questions to the focus group members

Persona	Time in minutes	Facial expressions	Intuitiveness	Colors	Typography	Call to action buttons
Persona 1 (2 users)	2:00	Neutral	Yes	Yes	Yes	Yes
	2:50	Neutral	Yes	Yes	Yes	Yes
Persona 2 (2 users)	7:00	Neutral	Yes	Yes	May be	Yes
	10:00	a bit confused	May be	May be	May be	Yes
Persona3 (2 users)	3.50	Neutral	Yes	Yes	Yes	Yes
	5:00	Wondering but neutral	Yes	Yes	Yes	Yes

Discussion:

This experiment aimed to evaluate the efficiency of the proposed E-commerce website design with following the specified steps of the design strategy to enhance usability

- Regarding time consumption the personas who are in younger age were able more to interact

with the design and accomplish the whole purchasing process successfully and quickly, the gender also played an important role in this experiment as the younger females could quickly choose and purchase from the site in a less time than males.



- From the observation of the facial expressions of the focus group members most of them had a neutral facial but when it comes to the older members it was noticed that they have a confusion facial especially when it comes to enter the payment information and when she had been asked about the reason she answered that she is a beginner to make online purchasing process through a website and she always ask her daughter to purchase , also one of the male had a wonder facial expression during the experiment and after asking about the reason he answered that he can't chose the perfect scarf as he rarely enter a websites for a female scarfs.
- 5 out of 6 from the focus group members agreed that the design is intuitive and the purchasing process is easy to use the only person who found difficulties while interacting with the website was the older one, she couldn't finalize the payment method as she told us that she can't enter the credit card number and she always ask a help from her daughter.
- Regarding colors and the way of its usage in the interactive features most of the focused group members found that the colors are related to the brand and it is also helped them to see the buttons and interact with them easily the also found the colors of the website appealing and matched with the logo.
- 4 out of 6 from the focus group members agreed that the typography was legible enough for them and the used fonts is simple and clear except 2 of them who found that the main titles in the top of the pages as it was a script font hard to read and also they can't read the word wrote with this font as it should be.
- The call-to-action buttons were designed to be very simple and have a sufficient color contrast with the background which made them easily to be seen, as all the focus group members found them easy to recognized and usable enough to be interacted with.

Results:

from the above analysis of the experiment the author obtained the following results:

The results obtained regarding the design strategy for websites:

- The prior determination of the potential users by specifying the main persona and analyze each one depending on preferences, needs, expectations and pain points is a crucial step in user experience process as the first step in the design strategy for E-commerce website designs.
- Designing the site map with its levels of hierarchy depending on the two techniques of card sorting is an essential step in information architecture design for the e-commerce websites.
- The ideal sequence of doing the ideal information architecture to design the site map is doing the open card sorting as a first step to know exactly the main categories of the information and to know the shared beliefs of users about this categories, then doing the closed card sorting to know specifically which item will be under which category depending on user preferences.
- Doing a low fidelity prototype for the e-commerce websites to see the pages and the link between them is a cheap, easy and effective way to test the usability.
- Usability testing is a crucial step after doing the low fidelity prototype in order to see the issues of navigations and the usability issues in early stages of the design process so it can be fixed without wasting time, effort and money.
- Good usability of websites makes the design more intuitive which enhance the online purchasing process in E-commerce websites .
- In accordance with our hypothesis (H1) we found that following the proposed Design Strategy steps will enhance and improve the usability of the Ecommerce websites.

The results obtained regarding the visual design considerations:

- Design the style tile at the early stages of the user interface design process is a crucial step to achieve visual consistency and enhance usability.
- Considering the color choice to be related to the brand will enhance the brand visual identity.
- The ideal strategy to choose colors is depending on choosing one dominant color for the primary information like titles and call to action buttons and one accent color fort the secondary information like sub titles and hovering states and white background for E-commerce websites, this will enhance the usability of the website and make the produts more obvious.
- Typography in websites should be legible and simple sans serif fonts will be more legible also the language used in the website should be clear and specified in order to enhance the interactivity and usability.
- Call to action buttons must be clear in the pages and have a sufficient color contrast to make them clearer and more intuitive.

- In accordance with our hypothesis (H2) we found that considering the appropriate design principles while designing style tile will achieve visual consistency and improve the usability in E-commerce websites.

Conclusion:

In this paper the author examined the impact of applying the proposed design strategy with the mentioned steps to increase the usability of the e-commerce websites, the user experience design process is the first step including determining the persona needs, expectations and pain points and doing the information architecture by executing the open and closed card sorting techniques to make the most logical arrangement to the information in the e-commerce websites then designing the sitemap and wireframes and doing the usability testing at this stage as a final stage in the UX design process to make sure that the navigation system is usable. Furthermore, examining the implementation of style tile including how to choose the appropriate colors, fonts and call to action buttons in achieving the visual consistency which enhancing the usability of the e-commerce websites.

The results revealed that the hypotheses H1. Following the proposed Design Strategy steps will decrease the usability issues in e-commerce websites, H2. Designing a style tile to achieve visual consistency will improve the usability in e-commerce websites are not rejected this study

aimed to put a specified steps for other designers to be followed in order to avoid common usability issues especially in E-Commerce websites in addition to put a visual strategy to design the style tiles to achieve visual consistency in the e-commerce websites to enhance usability.

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