Michelin Group

Website Design Report

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Introduction

As the e-commerce market continues to become more saturated, if you think of an object, there is probably a website selling that. Michelin is a company that specializes in tire manufacturing, but are also known for their Michelin stars, which rate restaurants all around the world. So, to provide their clients with a better tool to access the e-commerce market, the company created a website that acts as a tool to select tires that match the user's needs. In addition to the tire matching functionality, the website also provides the user with information regarding the company, general tires FAQ, and email newsletters.

With such a large name and brand, the company would benefit highly from a good UX & UI. When considering whether the website successfully implemented an interface effective at meeting its user's needs, three methods within heuristics will gauge the competence. The report will discuss multiple topics: the background behind the interface, purpose, and audience; methods used for analysis; discussion of result; resulting conclusion; and recommended changes.

Background

The Interface

To begin, googling Michelin will navigate to the interface under review, which returns the company website [4]. The website's content changes by the IP address, so using VPN services could navigate the user to a subsidiary's website. Since I am in North America, the American version is automatically provided, so this will be the website in question. On the first view, the website comes off as simplistic and minimalistic. The main color theme seems to be color codes

#27509b, #213966, and #f5f5f5 (Blue, darker blue, and white smoke respectively). The website theming reminds me of Walmart's color theme closely but is not necessarily a bad choice because the theming can make the website visually more like e-commerce sites (Fig 1).
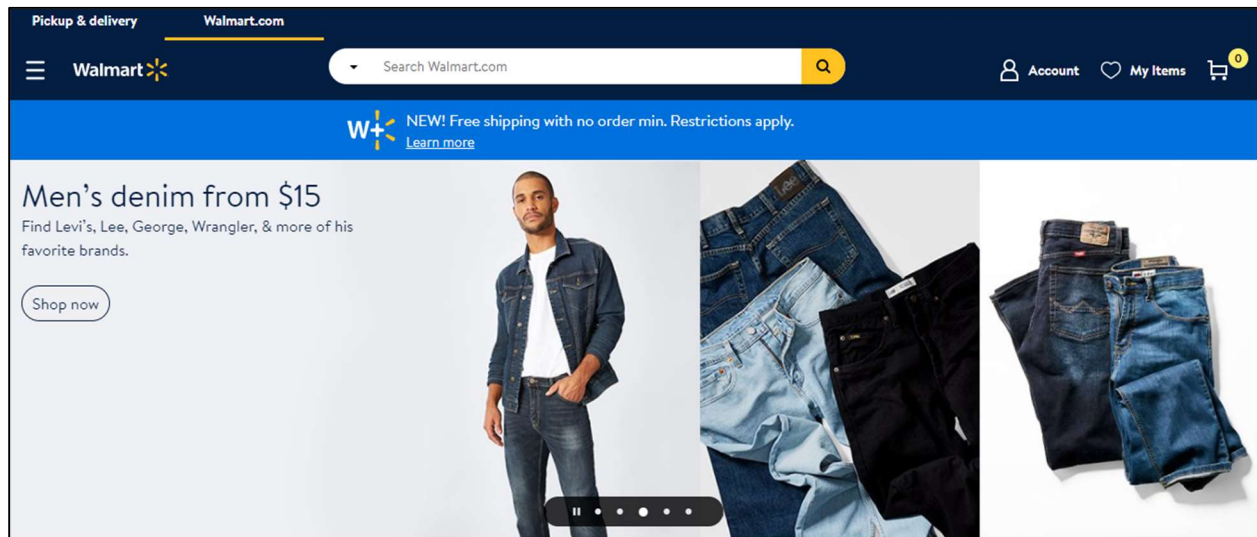

Figure 1: Walmart homepage, simple column grid layout. [5]

Purpose & Audience

The website contains many functionalities but mainly focuses on a few of the components: finding tires by vehicle, tire basics and information on Michelin, and finding a nearby dealer. For the search by vehicle functionality, the website eventually redirects the user to a dealer who sells the site, acting as a middleman. Though I cannot find many statistics on Michelin's tire client base demographics, I am assuming that the audience focuses towards 25 and on, which may be generous. Regardless, since the age group composes of elderly individuals, the website would need to incorporate a simple layout that discourages confusion.

Methods

Heuristic perspectives will be used to assess the interface's proficiency in information architecture, usability, the breakability of the website, and user-friendliness [1]. Analyzing the website content will consider three heuristics:

- Aesthetic & Minimalist Design

- Error Prevention

- System Status

Aesthetic & Minimalist Design

There are multiple types of aesthetic design, which includes classical and expressive. While classical focuses on "clean", "pleasant", and "symmetrical" aspects, expressive focuses on "sophisticated" and "creative" design [2]. To define metrics, aesthetics will be considered the "main factor influencing the first and overall impression of a website" [2]. Most studies on aesthetics have been finding that aesthetics have no impact on performance, but that does not include accessibility or minimalism. These design concepts can still aid in the websites' main goal to be as efficient, accessible, and user friendly as possible.

Error Prevention

Integrating well-executed error prevention methods will benefit the website's overall performance and user experience. When programming the website, there need to be safeguards to catch user errors. The developer needs to expect that there will be bad actors who will try to break the website, and approach from that perspective. Regardless of what is being designed, the design needs to restrict the user without impeding their freedoms, like disabling the search button when the content is empty.

System Status

An example of system status is incorporating a feedback mechanism, which improves the user's trust in the website/brand. Examples of good feedback mechanisms could include a "previously visited" component or saving content from previous visits [3]. System status should also be presented through small interactions with the website, such as button click hover effects or a loading circle.

Results & Discussion

Initial Layout & Feel

When initially navigated to the landing page, the layout is a simple flex container with a column layout. This is a relatively easy layout and works well and stays the same for mobile, which proves to be a minimalist design. In addition to the easy layout, the website also positions a chatbot in the bottom right corner of the screen. This component displays a loading circle, making the user understand that there is a message loading, while the chat also boxes shadows slightly to contrast the box from the background. The website's overall usability and user-friendliness are excellent because components like the chatbot or the initial layout provide the user with an easy to digest interface.

Navigation Bar

The navbar takes up a good 15% of the screen, and is on a white background, making the background elements extremely easy to view. On hovering the navigation links, the interface visually gives a system status by underlining the link container with a dark gray line that slides in from the left. Movement is excellent at grabbing the user's attention to the boxes that appear, which presents the next set of links. Within the navigation container includes a search bar that

serves as an overall site search and has placement text that prompts the user to "type something". However, the interface fails at preventing errors, because when selecting the input and pressing "enter", the component is not disabled and still navigates the user to a new page (Fig 2). The page will contain nothing with not much guidance on returning or what went wrong. Moving beyond content and functionality, the navbar's general aesthetic could be improved by adding action icons instead. Action icons could eliminate the need for extra text information, like the number and search.
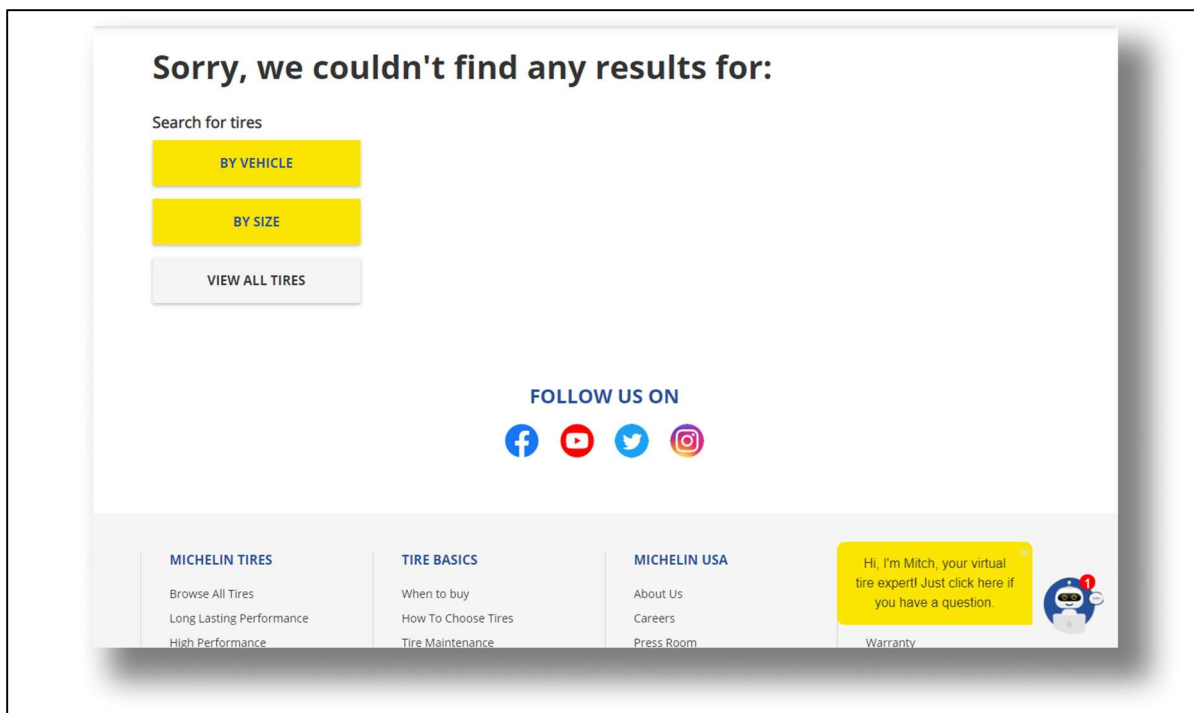

Figure 2: Returned page for searching an empty string, broken component. [4]

Homepage Components

After browsing much of the homepage, the interface included a lot of buttons that did simple hover effects. The simple animations consistent throughout the interface is preventing any

unnecessary distractions but is still efficient with communicating system status and interacting with the website.
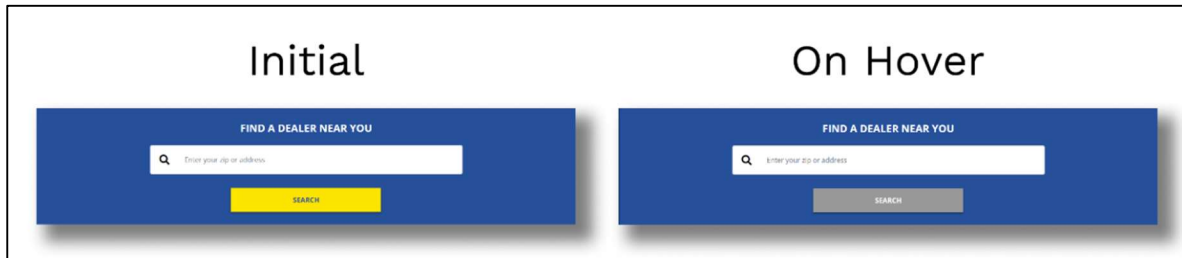

Figure 3: Michelin website button on hover interaction. [4]

Due to the website's mainly blue and white theming, the usual link color becomes inadequate in informing the user of its purpose. Since the header and links were both blue, the website's minimalist design was subtracted from the link's visibility (Fig 4). The homepage also contains a form to subscribe to the newsletter by entering an email and zip code. When pressing the "subscribe" button with empty fields, the page returns a clear error message reading out "Please fill out this field" and "Required". The component proves to be good at error prevention.
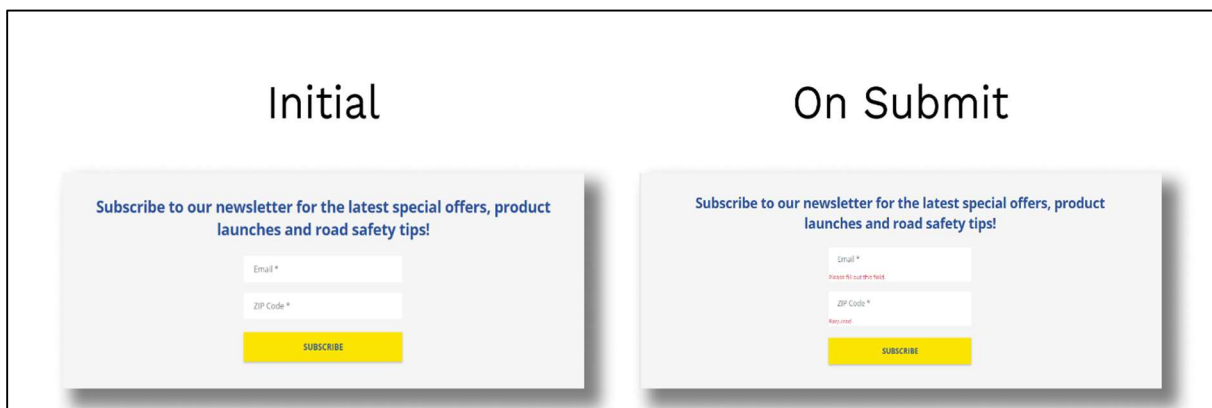

Figure 4: Red error text visible when submitting with empty fields. [4]

Set Your Vehicle

The "set your vehicle" component of the website is the arguably most important functionality of the website (Fig 5). This feature allows users to set their vehicle to automatically retrieve wheels that are compatible with the vehicle. As importantly, the component also gives guidance on how to find vehicle information and offers to search through tire size and license plate. For users who visit the site often, the developers implemented a feature where the vehicle information is saved even without requiring account creation. This is a rather surprising implementation from the company because many tech companies prefer collecting user data instead of giving choice to the user. The website utilizes local storage to keep track of the data, which makes the website much more appealing to people who care about their privacy.
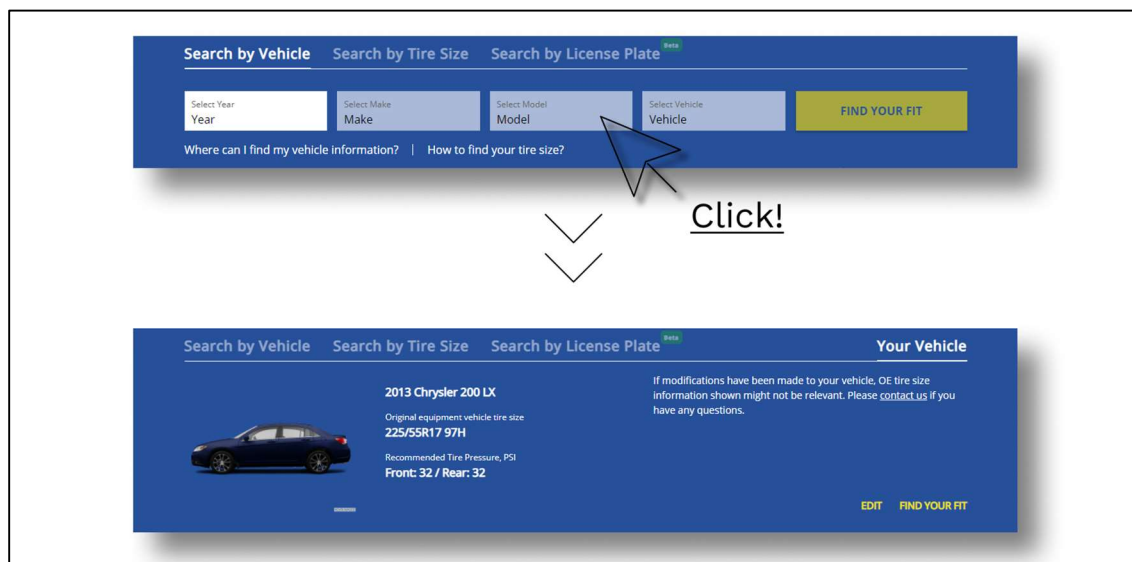

Figure 5: When setting "your vehicle" the breadcrumbs buttons disable the rest. [4]

Conclusion

When concerning whether the interface effectively met the user's needs or not, the evidence provided above would suggest that the interface did provide a friendly user experience. The

simplicity in the website's layout, good visibility and comprehensibility, and proper system

status communication aided in the website's success. However, the website should consider a

couple of minor adjustments to improve some of the small areas of confusion.
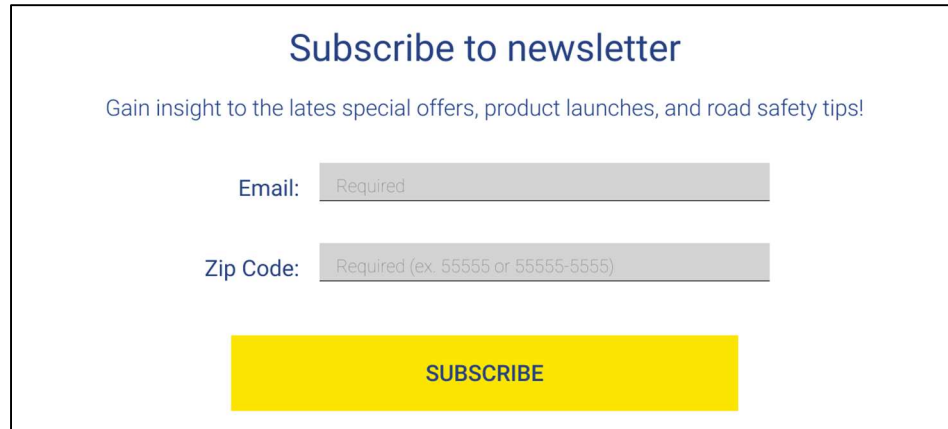
Recommendation

Breakability

Though the website did contain error prevention, there were certain cases where the handlers

were missing. As mentioned in the navbar analysis, the search input submits even with an

empty search. Similarly, the chat component is breakable as well but does catch empty fields.

When I tried spamming the bot, the bot would respond with the same amounts of responses.

Since the responses are not immediately visible, the chat is spammed by the AI.

Website Reliability

Additionally, when editing the "your vehicle" section of the website, the website automatically

gets rid of the returned list of tires. This could discourage users from changing some of their

options, taking away some user freedom. Aside from functional design flaws, the website also

included a "subscribe to the newsletter" form, in which the component's fields are barely

visible. Though the form does implement safeguards from errors, the general aesthetic could

be improved (Fig 6).

Figure 6: High fidelity mockup of subscribe form. [4]

Navbar

Though navbars can take up 10% - 15% of the screen, the website could create a thinner less distracting fixed navbar. The reason behind a sticky navbar is that once the user scrolls past a certain point, the navbar sticks to the top (Fig 7). Adding such a feature could improve the user's performance due to lessening time to navigate between webpages and would prevent the user from having to go all the way down for the "back to top" button.
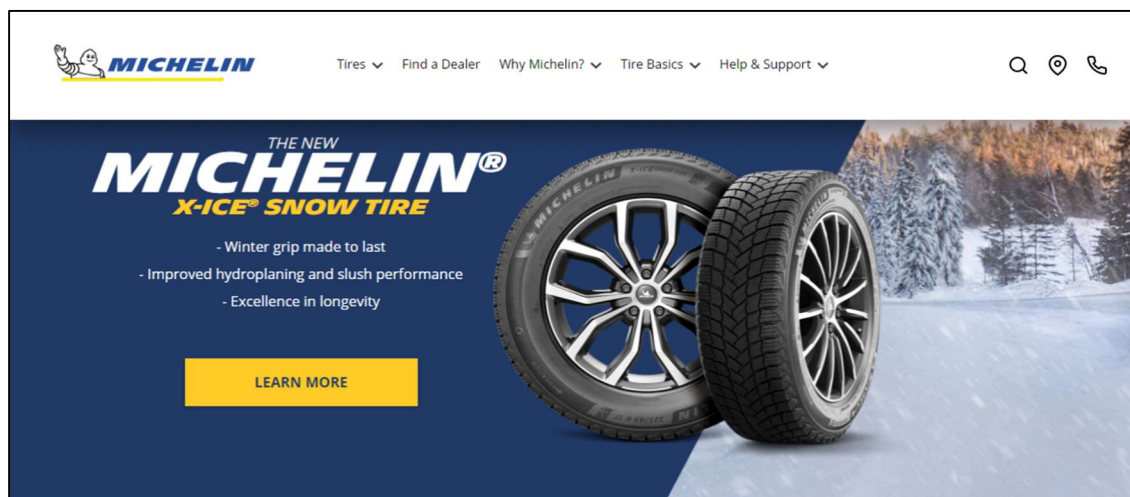

Figure 7: High fidelity mockup of improved navbar design. Pictures in design from [4]

References

[1] Kumar, A. (2019), Why UI UX is Highly Crucial to a Successful Project.

[2] Ou, Carol Xiaojuan, and Sia, Choon Ling, "Consumer Trust and Distrust: An Issue of Website Design." International Journal of Human-Computer Studies, vol. 68, no. 12, 2010, pp. 913–934.

[3] Thielsch, Meinald T, et al, "Experimental Investigation on the Effects of Website Aesthetics on User Performance in Different Virtual Tasks." *PeerJ (San Francisco, CA)*, vol. 7, 2019, p. e6516.

[4] "The New MICHELIN® X-Ice® SNOW Tire," Michelin. [Online]. Available: https://www.michelinman.com/. [Accessed: 22-Jan-2021].

[5] Verify your identity. [Online]. Available: https://www.walmart.com/. [Accessed: 22-Jan-2021].