# ENABLING E-COMMERCE THROUGH DIGITAL ACCESSIBILITY

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## Abstract

*The current paper investigated the importance of digital accessibility in e-commerce with a focus on its role in improving the experiences encountered while shopping online. Research suggests that about 15% of the world's population has some form of disability, which restricts them from using traditional e-commerce sites. Many of them, however, do not feel the need to incorporate the required accessibility options, which in turn reduces their marketing opportunities. The article analyzed successful examples of accessible e-commerce websites, showing the benefits of this approach for users and for the companies. Finally, it was further clear in the insights that undertaking digital accessibility as a business strategy not only meets the requirements of any legal regulations but also helps businesses in undertaking market expansion and building trust amongst customers.*

*Index Terms — Digital Accessibility, E-Commerce, User Experience, Inclusive Design, Online Shopping.*

## I. INTRODUCTION

From a digital accessibility perspective, digital accessibility can be considered a fundamental e-commerce characteristic that fundamentally changes the interaction between online shopping websites and consumers. This concept is an idea to design a web application for anybody to use, with the basic thought that any website or application should be accessible to everyone, especially people with disabilities [4]. Accessibility isn't just about not breaking the law; it's about doing better by everyone, across a diversity of people. An inclusive approach to digital design has also been proven to be an equitable one and to expand a company's customer reach exponentially.

However, so many e-commerce sites still don't meet accessibility standards and, as a result, create serious barriers for users. However, businesses these days are now realizing the need to solve these challenges, not just to ensure that they meet legal requirements but to develop customer satisfaction and loyalty. With this report, it is hoped to explore the significance of digital accessibility to online shopping to identify notable case studies of e-commerce sites resulting in successful online shopping [10]. It will also show what tangible benefits it will bring

to users and businesses and why it's important to continue to invest in accessibility in the digital market.

## II. UNDERSTANDING DIGITAL ACCESSIBILITY

Digital accessibility is the designing and developing of online platforms that allow people, in particular those with disabilities, to effectively interact with digital content. Thus, this concept involves a panoply of possible factors, from visual to auditory, from lack of cognitive abilities to lack of movement capacity. This definition goes further than usability, aiming instead to achieve equitable access to information and services in the digital world. Among other things, we follow these legal frameworks of the Americans with Disabilities Act (ADA) and the Web Content Accessibility Guidelines (WCAG) [13]. These have also become pivotal in directing businesses to compliance and attendant guarantee of an online environment to accommodate all users. However, despite this, many organizations remain unable to fully implement these standards as a result of miscommunication or resource mismanagement. Furthermore, digital accessibility must not be considered ethically. Businesses that put in the effort to design inclusively don't just check off a legal box or good practice; they perform acts of social responsibility, recognizing the diverse needs of customers. In an increasingly digital world, not handling accessibility can alienate significant parts of the market and hence represent reputational damage and lost potential revenue [5]. While digital accessibility solutions still need work to achieve full coverage, there is no doubt about the value of designing with an inclusive approach in online spaces. These design practices create an easy user experience that encourages customers to keep coming back. Ultimately, digital accessibility is a compliance thing, a strategy imperative, and one that can drive business success and create an inclusive society.

## III.CURRENT STATE OF E-COMMERCE ACCESSIBILITY

There is progress and yet significant challenges in the e-commerce accessibility space revealed in the current landscape. Despite the widespread accessibility barriers to online shopping, there are still many more barriers. Problems addressed here range from poorly structured sites to lack of text alternatives for images and from navigation challenges that disproportionately affect people who rely on assistive technology [1]. For example, a site that lacks keyboard navigation options makes it pretty much impossible for someone with a mobility impairment to use the site, whereas an absence of adequate color contrast can prevent a user with visual impairments from taking part in the content.

These are serious challenges, as statistics underline. Research showed that close to 70% of websites do comply with set accessibility standards (WCAG, for example). This places a spotlight on the necessity for change, as more than 1 billion people around the globe have some kind of disability [9]. As a result, they have a lot of frustrating and exclusionary experiences when trying to shop online, which means that they miss out on opportunities for businesses and are dissatisfied as a customer.

Yet, this is something we are currently seeing a shift towards more accessible e-commerce. An accessible site for all is both good for users and can also open the door for more customers. We

have seen innovations, including automated accessibility testing tools and user-centered design approaches, work and gain traction, which leads to a more inclusive digital marketplace. While considerable progress has been made, there is still a very long way to go before e-commerce is fully accessible [6]. Having an accessible website is not enough; businesses have to keep it up and continue to make it a priority because it needs to be a welcoming place for all users. In the end, the bandwagon of accessibility will be paramount for the rising sustainable growth of the e-commerce space.

## IV. CASE STUDIES OF ACCESSIBLE E-COMMERCE SITES

- **Case Study 1: Amazon**

The company has come far in improving accessibility within its platform, and it shows how much of an effort Amazon is putting into making everything accessible. The site is also designed with various features, such as screen reader compatibility, keyboard navigation, and text size adjustment. The goal of these improvements was to provide an easier-to-use interface for people with disabilities.

Measures of this accessibility have been greatly beneficial. It was found that the use of the site increased user engagement metrics of time spent on the site, meaning that customers could more easily navigate and interact with the content [2]. Additionally, both overall customer loyalty, as demonstrated by higher retention rates associated with users that utilized assistive technologies, and customer loyalty by segment were enhanced.

However when this is advancing, there are yet to be made in certain areas. Users provided feedback through formative research, revealing that occasionally there were issues with locating specific products and completing transactions, where the foundation to build on was strong but was still in need of continual evaluation and improvement [11]. However, because Amazon embraced accessibility as a proactive strategy, it serves as a case study of the benefits associated with prioritizing accessibility in a highly competitive e-commerce environment. If businesses resolve these challenges, they will have created a more inclusive online shopping environment for end users and the organization.

- **Case Study 2: Target**

Through the years, Target customers have had fantastic online shopping experiences. To continue improving the platform further the company has been working on accessibility efforts for users with disabilities. More interestingly, the retailer took its website through a full accessibility review and implemented features including the addition of alt text to photos, adjustable font sizes, and better keyboard style navigation to name a few. User comments helped shape these adjustments, with many users requesting more accessibility. These initiatives have had a considerable effect so far [6]. After the improvements, Target stated that 20% of customers with disabilities increased their orders and made purchases online, which is a strong indication of the importance of accessibility in modern shopping among customers. Additionally, customer satisfaction levels improved considerably as well, where surveys pointed out that 85% of users with disabilities of the site post-implementation found the website easier to use. Nevertheless, notwithstanding these successes, Target recognised that there were

significant barriers still, notably in guaranteeing respect for all of the accessibility criteria in all product areas [1]. However, interestingly, this has not only worked to assist Target's brand image but instead has facilitated how the retailer's online accessibility offering plays to the commercial advantage placed on being within the e-commerce market. It demonstrates the importance of good access.

- **Case Study 3: Walmart**

Walmart has made remarkable achievements in the area of inclusion in its online shopping platform. In particular, the provision of additional resources such as screen readers and navigational tools that are tailored for users with disabilities are some of the accessibility features incorporated by the company. These developments resulted from a detailed study that found that almost one in five internet shoppers encountered problems with access as defined by a lack of accessibility features such as text or images [3]. The claims made by Walmart are also substantiated by the rise in user numbers and post updates. Figures show that the number of users with disabilities increased by fifteen percent as a result of the changes made to the company's website. In addition, almost nine out of ten users who were surveyed after the introduction of changes to the interface were supportive of the changes, and the new design contributed significantly to the shopping experience of the users.

However, Walmart still had some questions to answer concerning the way it was perceived. Many critics insisted that, even though the company has made progress in providing accessibility features, other market players have come out strong and developed measures that address all aspects of accessibility [9]. However, it must be said that Walmart's initiatives have improved the situation and created a more welcoming environment, which is particularly good for the company's social image, striving to demonstrate its corporate social responsibility policies.

## V.BENEFITS OF ACCESSIBILITY FOR USERS AND BUSINESSES

The rise of digital accessibility in e-commerce is no longer hailed as a factor merely to promote inclusion but to bring much more value and productivity as such in the e-commerce sector. An enhanced user experience goes hand in hand with customers with disabilities, as they can also be assisted. According to a Nielsen Norman Group study, it was determined that 71% of users with disabilities who encountered blocks with no accessibility completed their intended task on a certain website [8]. On the contrary, when e-commerce websites began to encourage multiple customer-supporting elements into their designs, up to 50% of the customers indicated that their expectations were fully met. In other words, issues of accessibility design go beyond that of compliance; it is a key component to a good experience of online shopping.

In addition, the effects of accessibility do not only stop with the enhancement of user contentment. Digital gaps filled by businesses provide market growth and customer expansion opportunities. According to the World Health Organisation, an estimated 15% of the total world population has some form of disability. This populace has potentially a hundred billion dollars of market potential for purchasing power. Thus, accessible e-commerce not only has the potential to benefit those in need but also adds commercial value to companies addressing the

issues [11]. Moreover, companies now have to be attentive to legal compliance when working with digital. Both reducing legal risks and business protection from lawsuits, adhering to accessibility standards such as the Americans with Disabilities Act (ADA) and Web Content Accessibility Guidelines (WCAG) is not only a good idea but is the right thing to do. Lawsuits regarding e-commerce accessibility shot up recently and nearly 2,500 such suits have been filed in the U.S. in 2020 alone. That said, such proactive intervention in the form of compliance will not only prevent companies from becoming into a costly legal battle, but it will also help to build an inclusive online environment.

However, besides these factors, the implementation of accessibility features serves to the advantage of the brand reputation and customer loyalty. The 2019 study found that 83% of consumers think companies should engage with social causes, like accessibility, and are also actively promoting these causes themselves. Customers who come across as brand loyal to such brands are willing to pay an extra 15–20% for their products [7]. For example, in 60% of cases, consumers claimed to be most loyal to brands they believed were socially responsible. Therefore, exploring digital accessibility as a necessary side benefits business and pans out as a strategic business move while enabling the retention of customers and extending profitability long term. As a result, we can easily go on and on about the benefits of digital accessibility in e-commerce; it is better user experience, more market opportunities, legal compliance, the list goes on and on. An online marketplace that offers greater competitive advantages to businesses that can recognize and embrace them is poised to recognize them.

## VI.CHALLENGES AND RECOMMENDATIONS

Digital accessibility implementation in e-commerce platforms is a problem most businesses face due to the many challenges that come with it. The main problem is the knowledge and absence of the standards of accessibility. A survey done by WebAIM shows that 98% of homepages had at least one Web Content Accessibility Guidelines (WCAG) failure. This indicates that knowledge and application are very weakly mastered by companies [12]. Furthermore, small and medium-sized enterprises are likely to lack the resources and budget to upgrade to accessible websites due to the lack of funding set aside for them.

These challenges, however, have to be addressed, and to do so, companies need to put accessibility first, beginning with building it into their design and development processes. It's essential to train employees on accessibility best practices as they hold the keys to better compliance; research shows that companies with comprehensive training programs have 40% more compliant users. In addition to performing regular assessments of their platforms through automated tools alongside user testing with people with disabilities, businesses should do this [2]. The dual approach is to steadily improve accessibility so that it is not constrained by standards or user needs. Finally, during the process of maintaining an inclusive digital environment, assessment and adaptation are ongoing, in the service of users and businesses. If the first hurdles can be overcome, organizations become pioneers of accessibility and develop a loyal customer base.

## VII.CONCLUSION

With digital accessibility in e-commerce becoming a necessary enabler for delivering inclusive e-shopping experiences people began paying attention. But even with greater awareness, many e-commerce sites do not cater to established accessibility standards, alienating what could have been interesting customers. However, businesses that take accessibility seriously not only meet legal requirements but rather greatly increase user engagement and loyalty. With ethics, as well as the need for online spaces to be inclusive, we're looking towards a future in which online shopping is becoming easier.

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