

Window Shopper: Research Project

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Problem Statement- The foundation of the American economy is commerce and the principles of capitalism. Even in times of recession or financial hardship, the great wheel of consumerism keeps on turning. According to the Bureau of Labor Statistics' 2016 Consumer Expenditure Survey (BLS 2016), the average American household income is around \$75,000 before taxes. Americans are not the best at saving so it's not surprising that more than 90 percent of that income is spent throughout the year. While the percentage of income spent has not changed over the last two decades, the way Americans spend has seen a drastic shift from traditional 'brick-and-mortar' stores to a much more accessible digital marketplace. How might we solve the lack of in-person foot traffic while also enhancing the shopper's overall experience? The answer is Window Shopper. Our app will utilize augmented reality in conjunction with store information to provide an immersive shopping experience with exclusive coupons and deals. Imagine Pokemon Go but instead of catching creatures, the user will be on the hunt for hot deals.

Market Analysis- The advent of e-commerce has made finding and ordering products easier than ever before. This paradigm shift has caused what's being dubbed "the retail apocalypse," where many big-name stores are closing a multitude of locations in an effort to stay profitable. These failing businesses are our primary demographic.

According to research by Cowen and Company, mobile shopping has increased from 2

percent to 20 percent since 2010 (See Fig. 1), much to the detriment of many retailers. These companies will be the most hungry for an edge in a dying market. The users will consist of the 90 percent of Americans who own and operate a smartphone.

Financial Projections- Window shopper will generate revenue through native ads, a percentage of each coupon used, as well as sale of service at a monthly rate. Ads are the easiest way for apps to garner revenue and will be fully utilized on our platform. We will receive 10 percent of the discounted amount provided by the deal or coupon. The customer will pay \$8,000 per month for medium-sized businesses and \$15,000 for enterprise-level corporations. There are also additional support options like including the store's up-to-date inventory information. This extra service will not only cost more but require greater communication between us and the customer, requiring more customer support staff.

Global Implications- The evolution of online shopping has segmented the in-person sales market share and led to a detrimental decrease in sales for the traditional retail outlets. Globally, stores like Walmart have implemented shopping for items online and allow for the convenience of picking up the purchased items in the store closest to the consumer's location.

However, augmented reality is quickly becoming a tool utilized by top companies around the globe. Research from Analyst Digi-Capital suggests that \$120 billion in revenue will be generated by the AR market by 2020 and, according to a Deloitte

survey, of companies with revenues ranging from \$100 million to \$1 billion dollars, 90% are already implementing AR technology in their marketing strategies (Feng, Mueller 2018). AR experiences offer consumers unique ways to engage with brands. Studies that compared AR experiences in Ireland and South Korea found the important aspects of AR was ease of use, functionality, and style (Feng, Mueller 2018). These were important in two very different regions of the world. AR is important globally because companies and countries wanting to compete will need to keep up with and innovate this technology.

Companies are already applying AR technology in many different ways. Amazon has an AR shopping app that allows you to place furniture in your room and see if it fits, virtual dressing rooms have been used for years by companies like Ray-Bans, and Snapchatters use VR daily by applying filters to faces. All of these companies and more are steering consumers toward AR technology. Window Shopper will allow stores to compete in the AR world by answering the needs of those surveys done in Ireland and South Korea. The layout will be easy to use, aesthetically pleasing and it will provide a unique experience consumers want.

Diversity Implications- AR technology has the potential to connect many different cultures and make the world a more navigable place for all. As previously stated, studies show that the needs of consumers using virtual reality are similar across different cultures. They want it to be easy to use, look good and offer a unique experience. With that in mind, these experiences need to be tailored to different

cultures. The experience must feel personal in order for people to want to keep going back. That means the technology will be prepared for multiple languages, currency systems, and designs that will make people feel like it's for them.

Competition- Many businesses are trying to figure out how to implement AR technology in the consumer shopping world. For instance, [Go Instore](#) is a UK based online video commerce provider that has partnered with retailers to provide remote shoppers with in-store experts. The person calls in and the in-store representative uses an AR headset to gain information on the call. This type of technology is perfect for someone at home that wants a little more help than the simple chat function many online shopping websites provide. However, this technology does not serve the needs of someone who prefers to feel items before they buy them or try the items on. According to data collected from [1.425 consumers in the U.S.](#), 56 percent of people that prefer in-store shopping want to be able to feel an item first and 55 percent want to try the item on (Leadem, 2018).

Another company using AR technology to provide consumers with coupons is [Valpak](#). Similar to Groupon, Valpak provides consumers with coupons to stores and restaurants. They do offer an AR view on their app that allows users to view the street they are on and see available coupons, however, unlike Window Shopper, Valpak stops at the coupon. Valpak does not continue the AR experience into the store by providing users with detailed information on the item they seek to purchase and assistance with available sizes and related items.

We aim to expand our app to be a personal shopper that guides users through a store and provides them with useful information throughout their shopping trip.

Potential Solutions- For the user, the Window Shopper (WS) team will create an application in which customers can download to personalize the in-person shopping experience. The WS platform will incorporate a geolocation API, which will provide a list of the nearest retail outlets and their available sales items and coupons for goods and services. The user will provide demographic information in order to personalize their shopping experience. Implementing augmented reality technology, the Window Shopper platform will create a personalized interactive experience for the user. By using the QR code scanner, which is embedded in the WS software, and scanning the selected inventory labeled with a unique QR code, the platform will demonstrate how the scanned product functions and provide authentic reviews of the item from credible customers who have previously purchased the item via the WS platform. As the user browses through a shopping center, AR interactive icons will notify the user of the stores that are registered through the platform. If the user clicks on said icons, the application will guide the shopper to special deals and items of interest. As well, the WS application will provide an up to date list of the available inventory in local stores. The availability of each item will be tracked by a unique verification code. This will enhance the user's shopping experience by saving the user's invaluable time they could have potentially wasted on commuting to the store to check on the availability of a product of interest. User's of the WS platform will be encouraged to submit their reviews to earn

the status of becoming a WS Expert. Becoming a WS expert will include special offers and will credit reward points to avid users of the application.

For the administration/retail outlet, the WS platform will provide demographic information of each registered user through the platform. The demographics will provide analytics regarding the customer's age, gender, interest, income, and the user's purchasing habits. This specific information will aid the retail outlets in generating leads for potential customers and enhance their current marketing strategies. The use of the WS application for administrators will cost the company a 10% commission fee for each product that is purchased via the WS platform.

Marketing Strategies- The WS team will establish a customer loyal brand through innovative technology and exemplary customer service. For marketing purposes, the WS team will attract the target demographic through a variety of ways. Our team will utilize the power of search engine optimization. We will exemplify SEO strategies, such as having a well-designed web-page with the proper architecture for Google to be able to discover, crawl, and index our companies' webpage. WS will produce reliable content attracting a loyal customer base. As well, the WS platform will establish links and earn a positive reputation from credible e-commerce sites and traditional retail outlets. The WS web-page will contain keywords and phrases such as a personalized shopping experience, augmented reality, save time and money, etc.. As well, social media campaigns will contribute to our marketing strategies. For instance, we will advertise the WS application via multiple social media outlets with a short video demonstrating the

interactivity of the application, and the convenience the platform provides. After watching the video the viewers will have the opportunity to download the WS application. As the WS brand grows, the classic word of mouth strategy will strengthen brand awareness, because of WS' optimal customer service.

Limitations/ Challenges- The current convenience of online shopping creates a barrier to further enhance the in-person shopping experience. Amazon has already begun implementing AR technology into their platform for online shopping. This may pose a challenge to our company because this will deter the need for the consumer to actually visit a brick and mortar store to shop. However, in many cases, there is a need and want by the consumer to shop in person, "While e-commerce stores and sales are growing exponentially, [94% of total retail sales are still generated in physical stores.](#)" (Hartjen Ray. Retail's. Main Event: Brick & Mortar vs. Online.Retail Next.)The advanced technology required to power the WS platform does require experienced web developers and programmers. Currently, our team only understands the basics behind these necessary fundamental skills. The need to outsource quality developers and programmers will create a limitation as our initial funding will be limited. In addition to the budget needed for the development of the WS platform, the cost of the initial funding for the advertising of the application will be a challenge for our team to acquire. A limitation may present itself if users are reluctant to share some aspects of their demographic information.

When it comes to approaching potential retail outlets, there may be a challenge to convince retailers to innovate their traditional business strategies. In order for our platform to function properly, we will need access to the retailer's inventory database. This may pose as a challenge if the retailers are hesitant to provide us with the necessary information. As a team, we will need to convince these traditional retailers that in order to remain viable they must strive to stay relevant with the always evolving digital landscape.

In order to have a strong case for our company, we must have a functional prototype of our idea to present to potential clients. Through all of our limitations, the greatest challenge will be creating a user-friendly platform as there are many factors involved in creating a simplistic user experience.

Citations

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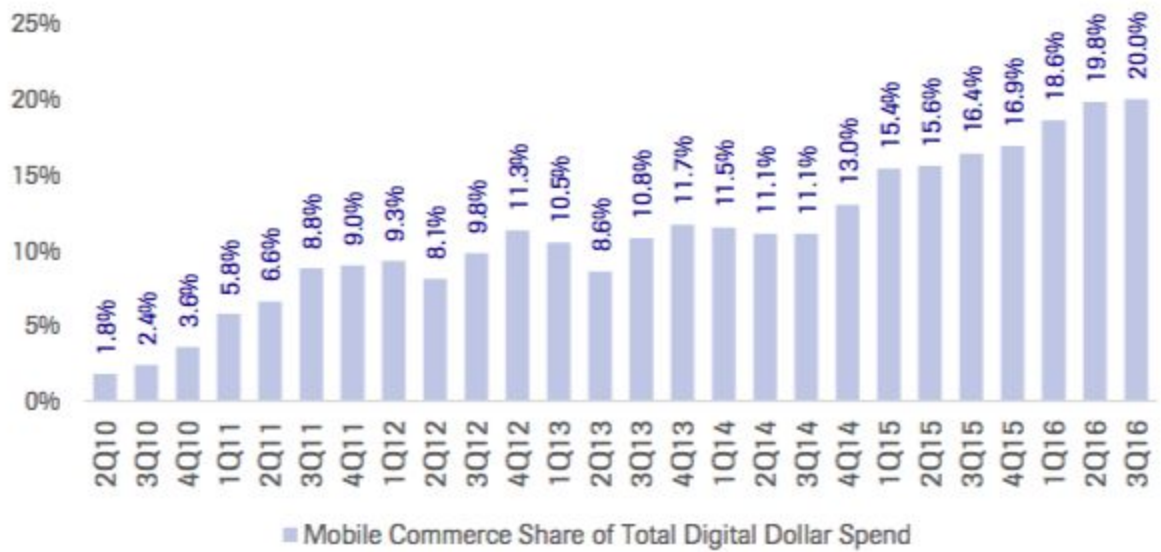


Fig. 1. Mobile Commerce Share of Total Digital Dollar Spend, 2010-2016. Graph from Cowen and Company. www.cowen.com