Jason Park

May 31st, 2020

TA: Samantha Thompson

Literature Review

Introduction:

The advancements and innovations in technology have resulted in significant changes in today's world. Now, more than ever, global connectivity amongst populations through online transactions and interactions is more readily available and possible in any location if you have an adequate technological device and Internet connectivity. An example of this interconnectivity is found through an examination of the rise in popularity of electronic commerce (E-commerce) transactions, especially when focusing on the experiences and data within the last 20 years. As consumers, we can shop and connect with one another and with online retailers anytime, and almost everywhere. In fact, it can seem like we have a limitless amount of accessibility to all the merchandise in this world when considering companies such as Amazon that allow us the luxury to shop for goods not accessible offline. Examples of goods most frequently purchased online include: Fashion, groceries, and electronics. From a geographic perspective, the rise in popularity of E-commerce has changed our geographies of consumption resulting in both tangible and more conceptual changes of our understandings of place and space in our environments. In this literature review, I will examine the current state of scientific research that has been proposed on how E-commerce has changed our consumption behaviors and our understanding of the meanings of geographic place, while also bringing attention to gaps in the current literature that

would further our understanding of this topic should they be addressed in future research work on this topic.

E-Commerce and Mobility Patterns:

Much of the preliminary research and academic sources that this literature review is based upon focused their efforts on determining if a relationship existed between E-commerce and its effects on people's mobility patterns, if such a relationship existed at all. The main sectors of E-commerce that most academic sources found in this literature review centered around grocery, fashion/retail merchandise, and service functions. By determining if such a relationship between E-commerce and mobility patterns did exist, we could then move on to understanding how E-commerce has altered our conceptions of place and space in geographic locations where E-commerce transactions and participation is found.

Despite the differences in sectors that were examined amongst previous academic literature, the sources agreed that proposing a direct relationship between e-commerce and changes in consumer mobility patterns was difficult to establish. For example, an academic source that examined the impact of E-commerce on the number of shopping trips made by consumers in the metropolitan area of Tel Aviv in Israel determined that the substitution in mobility patterns by consumers was negligible at best (Rotem-Mindali, Salomon, 2007). This means that consumers that participated in online shopping also went shopping at in-store locations just as often as consumers who did not shop online. This point is also mentioned and reinforced in another academic study that aimed to determine a relationship between E-commerce and mobility patterns in Sweden: "Individuals who shop online frequently, make as many trips to physical stores as infrequent online shoppers do, but uses more sustainable modes of transport (Berg, Henrikson 2020, 1)." Based on this conclusion, it can determine that there are a multitude of

potential variables in play that influences consumer's mobility patterns besides solely having access to the necessary technologies to shop online.

It is worth mentioning that because E-commerce is a relatively new phenomena that and is highly dynamic and responsive to changes regarding technology and trends of this world, there may not yet be enough data that currently exists to establish such a relationship. Therefore, academic sources have mentioned the need for more long-term studies to be conducted in the future to best understand E-commerce's effects on human mobility patterns (Berg, Henrikson, 2020).

E-Commerce and Our Understanding of Physical Place:

While a connection between E-commerce and predicting consumer mobility behavior could not definitively be established, academic research has shown that E-commerce has had an impact on our physical understandings of place and space (Mittal, 2013). For example, as a result of the growth of online shopping, academic work has suggested that the physical retail landscape, such as our shopping malls and retail centers, will need to undergo some form of alteration in the future to keep enticing consumers to continue shopping at their offline sites (Mittal, 2013). Suggested alterations of the physical retail landscape could include: Expansion of parking lots and changes in in-store layout and design to better attract and retain customers. The necessities of adaptation and change that offline retail and shopping centers will need to undergo in the future is largely due to the advantages that consumers are given when they choose to shop online rather than at an offline retail site: "The consumers gain enhanced price competition, expanded information on goods and services and increased choice of products (Rotam-Mindalli, Soloman 2007, 178)." Therefore, the consumer no longer needs to go out of his or her way to travel longer distances to shop for their preferred or required items that are not found in vicinities around

them. With the growth of technology and E-commerce, the consumer now has accessibility to a much larger array of products and services through devices such as their mobile phones.

While statistics have shown that there are continuous increases in the amount of revenue generated from online shopping in the retail sector, up to 16.0% of all sales in 2019 (Young, 2020), this does not mean that all retail stores are currently suffering from a total loss in consumer base due to E-commerce. Academic sources can be used to support the idea that the traditional in-store experience still holds significant value and importance in the minds of consumers and the choices that they make. For example, an academic source has argued that consumers still significantly value offline, word-of-mouth recommendations when making their shopping decisions, especially those that have come from people within the same geographic location or with whom they are familiar with (Choi et. al, 2010). While online E-commerce activities may be able to reach a larger audience of potential customers and offer a broader range of products, the lack of personable word-of-mouth recommendations and reviews can be a limiting factor in having customers follow through in purchasing goods online. Ultimately, this means that although retailers may need to undergo certain physical renovations to continue attracting both their current and future customer base, we should not conclude that all retailers will be going digital in the future.

An important consideration to keep in mind is that these academic sources have based their conclusions on both qualitative and quantitative data found in mostly urban metropolitan areas, such as Tev Aviv in Israel (Mittal, 2013), and a sample of 1,200 major U.S. cities (Choi et. al, 2010). However, there exists a scarcity of academic research that has been published studying the effects of E-commerce with consumers in both rural and low-income communities. To better

understand the relationship between E-commerce and potential changes in geographic place, more academic research will need to be conducted in areas further away from the urban core.

E-Commerce and Our Understanding of Conceptual Place:

On the same topic, current literature has suggested that the increased accessibility of E-commerce and online shopping, which is most often done in the convenience of consumer's homes or on their cell phones, may have the ability to change our conceptual understandings of space and place. Geographically speaking, space is defined as something that is abstract and does not hold any significant meaning to it while place is defined as space that has meaning (Moser, 2020). With the increased accessibility of E-commerce, the functionality of our homes has changed to be so much more than just an area of residence. For example, the idea of our households can now be expanded to include areas where service activities, such as shopping, at-home appointments, and locations where out-of-home services, such as ride sharing from Uber/Lyft, can be delivered (Golant, 2019). Furthermore, the increased accessibility of services and items due to technological advancements has the potential for a much more personal and human impact with our relationship with the spaces around us: E-commerce can also reduce the stigma of loneliness attached to certain demographics and their geographic regions, such as amongst the elderly who are populated in the suburban areas, and can be used to support the notion that suburban communities can change to become as equal in opportunity and resources as the urban city core (Golant, 2019).

As previously mentioned, offline retail sites cannot cater to the needs of all consumers in the communities around them. However, E-commerce also has the potential to reach out to those in the community who could be categorized as being the "preference minority" (Choi, Bell 2011, 670), which is a term used to describe a subset of the population that is ultimately underserved

from their community's offering of products offline due to the majority demands of the community they live in. By increasing accessibility of products to reach a much larger audience, the perception of communities can also undergo a shift in perception that highlights the increased connectivity of our world, and can also be used to support previous notion that suburban communities have as much resources and accessibility measures as their urban core counterparts. Therefore, these examples show that the effects of e-commerce can be felt both at a physical, as well as a conceptual level, too.

Is a Full Understanding Possible?

As previously mentioned, many of the academic sources that were cited for this literature review could not decisively conclude the degree of relationship between online shopping and consumer's mobility patterns (Petterson, et. al., 2017). Common reasons cited in literature as to why such a conclusion could not be drawn include: Lack of long-term studies that have been conducted on this topic (Berg, Henrikkson, 2020), a lack of sufficient research and data available (Burt, Sparks, 2003), and overall due to the dynamic and unpredictable nature of both human beings and also e-commerce as a whole (Mittal, 2013). It is difficult to precisely predict how humans will behave in the future, as human behavior is highly dependent on a multitude of personal factors and variables so diverse that it may not be possible to determine a causation-correlation relationship between E-commerce and human behavior. Examples of such variables include: An individual's own life circumstances, personal preferences, economic status, and the dynamic nature of E-commerce in which certain fads and trends come-and-go throughout time.

Considerations for Future Academic Research:

While my research question has undergone slight changes and modifications as we have progressed through this quarter, my purpose in writing this literature review was to examine the current state of scientific research in regards to how E-commerce has resulted in changes in the geographies of consumption and the meanings of the geographies of space. After having done so, I can conclude that while it may be difficult to accurately predict the relationship between people's mobility patterns and their E-commerce habits beyond just the general scope, there remains a gap in the literature in regards to the demographics that are being included in current academic research and literature reviews about this topic.

One example that highlights this idea is the accessibility of technology that we have grown accustom to assuming is a given in all situation. We often take for granted and believe in the idea that every population has equal access to the most popular devices used in E-commerce, such as phones, computers, and Wi-Fi connectivity. This is largely due to the normalcy and prevalence that these technologies have had in our daily lives. However, the accessibility of these technologies may not always be the case in all situations, and for all demographics. Other external factors, such as variability in income status, often influence people's accessibility to the minimum technologies previously listed that are required for E-commerce participation.

The academic sources cited in this literature review have stated that those who participate in E-commerce transactions are most often the subset of the population who have both access to technology that allows for E-commerce shopping, and also the luxury and affordability to do so (Berg, Henricksson, 2020). Those who decide to purchase online often do so for convenience, even as online shopping often incurs greater charges than does traditional on-site shopping when factoring in various surcharges, such as shipping and handling fees and monthly subscription

costs for services. Furthermore, another variable that is often assumed to be true in sample sizes used in current literature is the assumption that all demographics have equitable access to methods of transportation. Examples of the most common methods of transportation found in literature include owning a personal vehicle, having access to transit buses, and being able to afford and call an Uber or Lyft service. However, having the ability and access to mobility and transportation should not be considered equitable for all: "Lifestyle mobility is a form of mobility driven by the desire to improve one's quality of life that is accessible only to relatively affluent persons who enjoy socio-political privilege (Berg, Henricksson, 2020, 2)." Therefore, to best understand a potential relationship between E-commerce and human's mobility patterns, it is important to also gain a full understanding of the demographics used in future literature.

Finally, it is important for future research regarding this topic to always be aware that technology and its associated networks, such as e-commerce, is very dynamic. Therefore, to gain a better understanding of the effects of e-commerce and the geographies of human behavior and environment, future academic work will have to track these affects over a long period of time to discover the relationship between the two topics.

Research Methods:

By assuming that such variables are a given in any location, I believe that the sampling sizes used in academic research are not totally inclusive to all populations. Of the academic sources that were reviewed and used in creating this literature review, I found that many studies chose to highlight largely similar sample groups. These sample groups included those that were categorized in one or many of the following categories: White-collar workers, had a steady flow of income, younger in age demographics, technologically adept at using and handling online transactions, access to either private or public forms of transportation, and also had access to the

necessary technologies described in the previous paragraph. Examples of these sample groups could be found in a study that aimed to connect mobility practices and online grocery habits in Sweden (Berg, Henricksson, 2020), and also in a different research example that aimed to show significant disparities in demographics that shop online, concluding that online consumers are most likely to be men aged 25–44 years, affluent and living in urban centers (Choi, Bell 2011).

Therefore, it would also be incorrect to assume that all demographics and population would openly embrace the advancements that have been made in technology. For example, according to Golant (2019), “Still, a substantial percentage of today's seniors are not users. They are uninterested in products they cannot touch, lack viable or affordable internet connections, are incapable of using computer-based ordering systems or are suspicious of this new retail paradigm.” Because many of the academic sources used population samples that were similar in overall characteristics, such as age, income level, occupation, etc., sample populations who do not fit these criteria were often not selected for study.

To better reach a broad and more diverse population sample, I do not believe that it would be best to use methods such as snowball sampling that have been previously used in academic literature (Berg, Henriksson, 2020). Nor would it be best to sample populations that are all in the same geographic region for convenience using non-probability sampling technique such as convenience sampling. To best achieve an equitable and non-bias sample population, I believe that the best sampling techniques to employ would be those categorized as probability sampling techniques. This quarter, we have learned of four different types of probability sampling techniques. For this research topic, I believe that the most affective probability methods would be either be a simple random sampling method, or a systematic random sampling method because these sampling methods ensure that every unit of all demographics in populations have

an equal chance of being selected and studied for representation. By addressing these gaps in current literature, we will be able to ask questions of more depth that will expand our knowledge of this research topic, such as the following: What effects does e-commerce shopping have on populations that are of lower income or of different racial backgrounds, and how does e-commerce affect their mobility patterns and their understandings of the geographies around them? By addressing such questions, we could better understand how e-commerce affects those of different race, ethnicity, and income level.

Conclusion:

The branch of E-commerce has begun to gain in popularity and accessibility as technological advancements have made the internet and all its functions available almost whenever and wherever we are. In relation to the study of geography, E-commerce, influences not only our physical understanding of place, but also our conceptual understanding of the environments around us: E-commerce can change the functions of our homes, and can also be used to serve the minority needs of a community if needed. However, because this topic is one that has not yet been studied for an extensive period of time, it is premature to draw conclusions as to whether or not E-commerce has the ability to change human behavior and their mobility habits. While future academic work may be done to bridge the gap in our understanding, it is important to also highlight and address the gaps in literature of this topic, namely by focusing on inclusivity for future studies. By addressing the gaps in literature, we can move forwards in our understanding of this topic.

Bibliography:

- Berg, J., and Malin Henriksson. 2020. In search of the 'good life': Understanding online grocery shopping and everyday mobility as social practices. Journal of transport Geography 83: 1-6.

- Burt, S., and Leigh Sparks. 2003. E-commerce and the retail process: a review. Journal of Retailing and Consumer Services 10: 275-283.

- Choi, J., and David R. Bell. 2011. Preference Minorities and the Internet: Why Online Demand is Greater in Areas where Target Consumers are in the Minority. Journal of Marketing Research 48: 670-682.

- Choi, J., David R. Bell, and Leonard M. Lodish. 2010. Traditional and IS-enabled Customer Acquisition for an Internet Retailer: Why New Buyer Acquisition Varies over Geographies and by Method. Management Science: 1-50.

- Golant, Stephen. 2019. Stop bashing the suburbs: Mobility limitations of older residents are less relevant as connectivity options expand. Journal of Aging Studies 50: 100793.

- Mittal, Arjun. 2013. E-commerce: Its Impact on Consumer Behavior. Global Journal of Management and Business Studies 3: 131-138.

- Moser, D., https://drewmoser.com/2016/07/12/space-vs-place-and-why-its-important-to-know-the-difference/ (accessed May 9th, 2020).

- Pettersson, F., Lena Winslott Hiselius, and Till Koglin. 2017. E-commerce and urban planning – comparing knowledge claims in research and planning practice. Urban, Planning and Transport Research 1: 1-21.

- Rotem-Mindali, O., and Ilan Salomon. 2007. The impacts of E-retail on the choice of shopping trips and delivery: Some preliminary findings. Transportation Research Part A: Policy and Practice 41:176-189.

- Young, J., https://www.digitalcommerce360.com/article/us-ecommerce-sales/ (accessed May 9th, 2020).